

# “NRH”-- A Unique Short-Wave Broadcasting Station

By ROBERT HERTZBERG

**W**AY DOWN in tropical Central America, just below the bandit-infested country that keeps the United States Marines so busy, is the smallest and most unique broadcasting station in the world. This is NRH in Heredia, Costa Rica, 3829 feet above sea level and surrounded by abundant coffee trees. It was built and is owned and operated by one Amando Cespedes Marin, a native of the country, who is a photographer by profession. Although it uses only 7½ watts of power on a frequency out of the recognized short-wave relay channels, and employs a set of call-letters that properly belongs to the United States Navy, it has built up an international audience of listeners that finds its programs interesting, thrilling and amusing. It is almost altogether a one-man affair, its owner acting as engineer, announcer and chief entertainer, with the frequent help of an old phonograph and the occasional assistance of his family of four children, the oldest of which is 17, and the youngest only fifteen months.

Señor Cespedes is blessed with an unusually favorable location for short-wave transmission, and he has adopted a wavelength that radiates from that location in a highly efficient manner. The 7½ watts of power that he uses is hardly enough to illuminate a boudoir lamp, yet his signals boom into the United States with tremendous volume. He is now struggling with a 150-watt transmitter, but I doubt whether this produces any better results than this present little one-lunger.



So far-reaching have been the effects of NRH's programs in cultivating what might be called international good will that the government of Costa Rica has given Señor Cespedes the free use of the mails, thus placing him on the same basis with its diplomatic service. The official stamps which the grateful government sticks on his letters of verification are gleefully torn off by radio bugs who also happen to be philatelists.

#### A RADIO PHENOMENON

How did this little station happen to develop so importantly in the remote center of America? The answer is that the radio fever is no respecter of persons or climates and strikes wherever it happens to like. In the case of Señor Cespedes it afflicted a picturesque individual of more than ordinary intelligence, and the results are now obvious in the world-wide fame that the little outfit has achieved. Talk to any owner of a short-wave receiver and he will tell you of Señor Cespedes' announcements and talks in meticulous and sometimes excruciating English, or of the programs of romantic Spanish music played by an old victrola or of the naïve little talks delivered by his eldest daughter. His youngest offspring is probably the only baby whose voice has echoed around the world, although the parents of others may think that their own infants can well challenge him for the record. When the child was only two months old,



the proud father put him in front of the microphones and let him squeal into it. Some listeners (bachelors, no doubt) were unkind enough to describe the sounds as "static," but most of Señor Cespedes' faithful audience listened to the noises with much delight. They sent the child numerous little gifts, which shows that sentiment still exists in this otherwise cruel world.

Señor Cespedes has been kind enough to prepare a brief autobiography for the editor of RADIO DESIGN, who takes great pleasure in publishing it herewith. Those owners of Super-Wasp and other short-wave receivers who listen to NRH nightly will recognize the English instantly, as it is just as interesting, sincere and whimsical in printed form as it is over the air.

#### PERSONAL HISTORY

"Cespedes is my family name, belonging to my father, and Marin is the original family name of my mother. We Spanish people descendants feel proud to demonstrate with our two family names that we are legitimate offsprings, of pure blood. That custom is encouraging, because our offsprings do know their true relatives and ancestors at once.

"I was born in San Jose, the capital of Costa Rica, forty-eight years ago. When I were nine years old I wanted to learn English language and, besides the school special lessons, I had an extra daily-hour

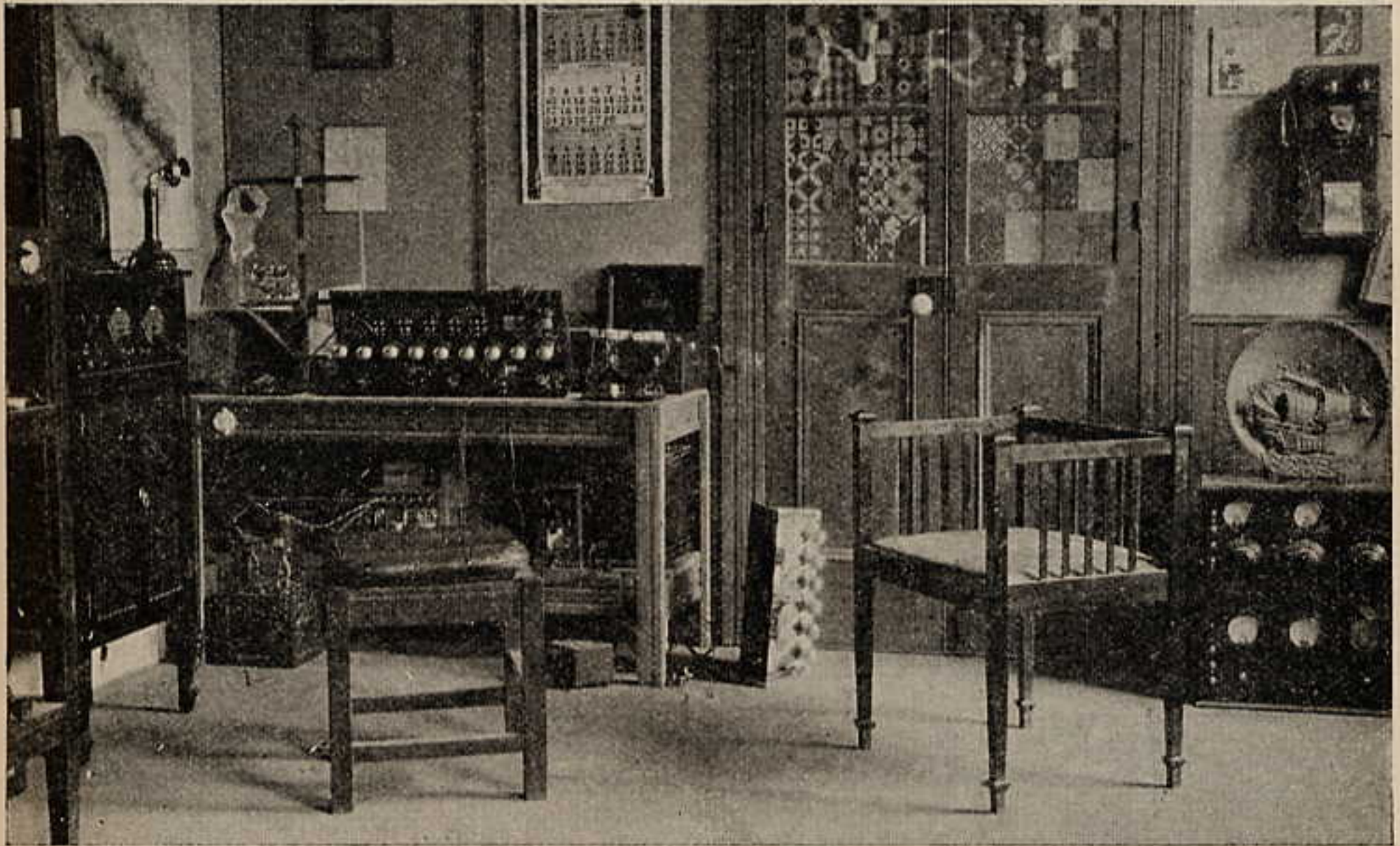
everyday. Thus when I was ten, I could speak and write as much as I do now. I used then to translate from either language and made enough money to earn in three years my fee to New York.

"In New York I done the same and went to night schools free, during seven years, during which I earned and lived and learned many things that a man being a kid wanted too. Returned my country with money. Returned again to U. S. A. and studied photography in Illinois, and in 1901 I had a good-looking business in San Jose.

"I was Commissioner Attaché to the Louisiana Purchase Exposition in 1904 and traveled after that for many a beautiful spot in grand old U. S. A., which I consider as my nourishing country. Returned in Costa Rica after being, in Panama, Chief of the Statistical Census Office for three years. Married here, and in eighteen years have four lovely offsprings, which are now full of radio 'IT,' worst than I am.

"Radio interested me from *Radio News Magazine* ever since November, 1923. The first letter of verification was from Mexico on that month. I heard it with one-tube set made in accordance with article by Joseph Calcaterra, a kind engineer and writer that helped me as a father of radio. I am also indebted to Mr. M. B. Sleeper, of known name.

"I studied *Radio News*, *Radio Engineer-*



*A corner of the combined NRH studio and operating-room, showing the receiving and monitoring equipment.*



ing, *Radio Broadcast*, *Radio World*, *Radio*, *QST*, and all radio pages in your daily newspapers. Discussed ideas with many a man and engineers, and at once found me as a set builder, making radio fans in this country every day. Whatever we have of radio in Costa Rica, I am proud to state that it has been made, done or caused by my terrible constancy to push radio activity in the country.

"If Calcaterra gaved me the first reception construction ideas, M. B. Sleeper taught me something about transmitting sets. Then after the Radio Engineering Laboratories have taught me a lot from their hookups.

#### REACHING OUT

"But the actual short-wave transmission has been caused by the first man that reported my 39-meter broadcasting on May 11th, 1928, when Mr. Henry P. Karr, of U. S. A. Camp at Gatun, Panama, Canal Zone, wrote: 'Your modulation is fine; we could understand easily every word.' (Mr. Karr is now W9DQF at Great Bend, Kansas, as he writes me.) If ever I am indebted for the United States spreading of my 30.3-wave amateur broadcasting, the title goes to Mr. Charles J. Schroeder, of 3125 North Spangler Street, in Philadelphia, being the first



*Señor Amando Cespedes Marin,  
builder and operator of NRH.*

man that heard and reported my voice and music, through the courtesy of *Radio News Magazine*, last November, 1928. To Mr. Schroeder and to *Radio News*, the honor of being the openers of your great U. S. A. door to the smallest radio broadcasting on earth! I claim like the old Milwaukee beer, that the NRH has made Costa Rica famous with *only 7½ watts and 500 volts on the plate. Hi!*

#### MY EXPERIENCES

"November 2nd, 1923. Built a regenerative one-tube set. I heard the voice of lady singing so sterling that innocently I was looking for her within the four inches coil . . . hi hi!

"March 4th, 1924. The first set I sold to a rancher rich man. We heard Hastings, Nebraska, at the porch, 300 feet away from loud speaker. I returned that night at 2 A. M., March 5th, my wife was waiting for me. My children had slept themselves on one bed. My wife told me to remove one of them to his bed. I told her it was already 3 A. M. and to let the children away without disturbance. Went to bed at 3½ A. M. Could not sleep, thinking of the beautiful Hastings broadcasting, when a little after 4 A. M. a big earthquake shook the house, teared it to the ground. I went to the room of my children over the débris, and finding them OK, but the bed that belonged to the boy was broken in three parts from part of the roof falled. My children were saved by the radio affair of that night. One of them would have been killed if same would have been sleeping in his bed.

"March 8th, 1924. What a surprise to hear from Havana, Cuba, the reports of my experience of the 4th of March earthquake, giving complete details as reported to newspaper men. I received many letters from all around Central America, Mexico, Cuba, etc.

#### ACROSS THE OCEAN

"November 24th, 1924. With three-tube set, using 199-tubes and dry batteries, from 6 to 8 P. M. CST, I heard a broadcasting from Manchester, England, as the first night test under Radio Broadcast International Test. That was on long-waves, for the first time in America. The rest of that week nothing doing no matter where.

"December 1st, 1924. From *Rudio News* I made the first 201-tube transmitter, in duplicate sets, and talked with a friend five miles distant. Same set was used as a broadcaster with phono records and the few hearers then thought it were a power-



ful United States station three thousand miles away. Many congratulations when they found it was a local work.

"January, 1927. From *Radio Mechanics*, I made the best long-wave transmitter and started a regular broadcasting for fun, to help me out the set building, and the sale of replacement parts.

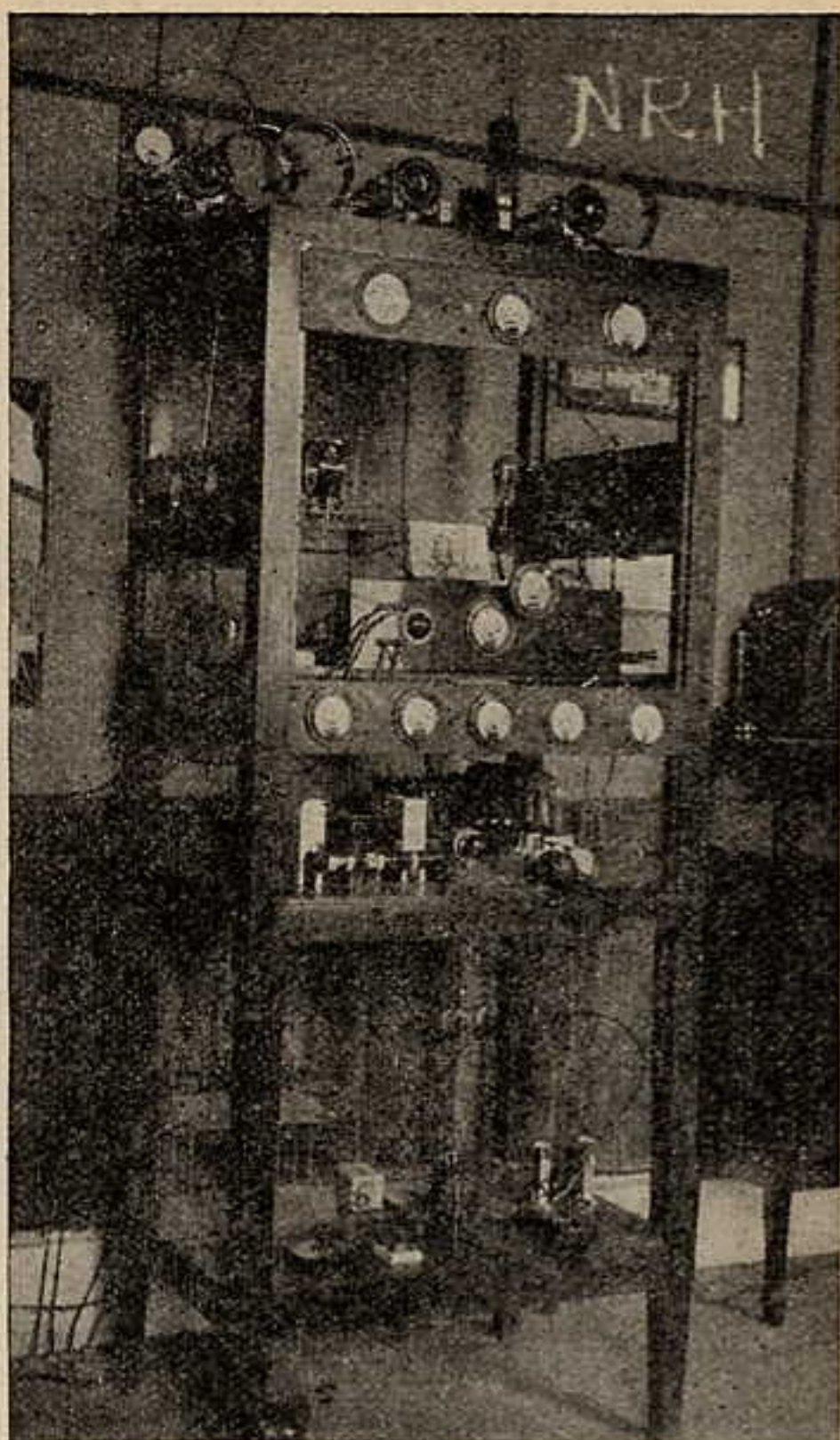
"March 4th, 1928. With short-wave transmitter begun transmission with 39 meters wavelength, thinking to phone 100 miles only, for the use of country farmers.

"May 18th, 1928. Henry P. Karr, of Gatun, in Canal Zone of Panama, reported my regular broadcasting for ten days, under heavy interference of code. (300 miles record.)

#### 1,200 MILES RECORD

"June 19th, 1928. Mr. Vava, from Guayaquil, Ecuador, reported the broadcasting as being *Monumental*, like the big fellows, 'just like hearing vaudeville in any theater.' This report gived me a long DX record for 1,200 miles from South America.

"July 1st, 1928. The principal newspaper in Havana inserted an article giving account of the NRH broadcasting, being marveled at my low power of  $7\frac{1}{2}$  watts and reported by hundreds of fans to them. After this date, hundreds of let-



Above: This looks like a big frame, but the actual transmitter on it has an output of only  $7\frac{1}{2}$  watts. Señor Cespedes pieced the whole outfit together himself, working patiently with only the assistance of magazine articles and letters from American amateurs. Left: The youngest member of the Cespedes family, who is as familiar with his father's microphone as he is with his own rattle.

ters came from Central and South America, and West Indies, also Mexico.

"October, 1928. *Radio News*, of New York opened the door of U. S. A. radio listeners, through the medium of Mr. Charles J. Schroeder, of 3125 North Spangler Street, Philadelphia, Pennsylvania. Being 2,500 miles north of Costa Rica, Mr. Schroeder reported to *Radio News* editor: 'He was first on 39 meters, but late in using 30. I know for a fact that it is not the Costa Rica government

for the announcer says that he is an amateur station, at Heredia, Costa Rica, although I cannot get his call or name.' In accordance with such insert, Mr. Schroeder was hearing the NRH ever from my beginning with 39 meters for a month from May to June only, because on account of code interference I changed my wav<sup>e</sup>.

"December, 1928. By the insertion of my call-letters in *Radio News*, January, 1929, number, every one almost has report-



ed my broadcasts and all whatever I speak, making me feel hesitating of such real DX with less power than a regular house incandescent lamp. Ever since, every week mail brings me from 40 to 85 letters from all over the American Continent, reporting in full, and inquiring all kind of things.

#### AN ANNIVERSARY

"*May 4th, 1929.* I celebrated my first year of short-wave broadcasting, sending out a three-color diploma with the Costa Rican flag and pictures of the station. This diploma is being framed by all radio friends, which think of me as 'the real home station,' 'the most friendly station on earth,' 'we are with you 100%,' 'you are the smallest radio power station, but the biggest towards real amateurs love,' 'you can be compared favorably with the biggest stations in the world,' 'the most consistent station of them all,' 'the best phone station I ever heard,' 'you are doing a remarkable work,' etc.

#### FREE POSTAGE

"*June 19th, 1929.* The government of Costa Rica, on account of the true statements of my reaching power, and considering a benefit to the country the hard work I put in my daily-hour of broadcasting, and to stimulate the real amateur work in radio, published a decree in the

official paper, stating that from this date on, all my mail to foreign countries would not cost me a cent, and should be considered as diplomatic service, with free postage.

#### DEVELOPS FRIENDSHIP

"Those are all my experiences, after 70 months of hard amateur work recognized by all the American Continent. It has developed true heart friendships in different cities of U. S. A., because I have tropical time to answer personally every letter sent me, giving the touch of fraternity and culture, so much desired in this day of brothership. It also has developed a better understanding among the Latin American republics, calling me as 'the mentor of the Spanish race,' 'the light-house of Spanish America,' 'the cry of the Continent'; I am thankful towards all the U. S. A. newspapers and magazines for everyday insertions about the NRH, the only amateur broadcasting station on earth, doing the most consistent work."

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This is the story of NRH. If you have heard Señor Cespedes, you can now appreciate what he has done in radio. If you have not yet heard him, chase down to 30.3 meters on your short-wave set some night between 10:30 and 11:30 Eastern Standard Time, and you will find a treat in store for you.



The "studio" of NRH. The microphone stand is a combination of a flower pot stand, a wavemeter case, and some tube boxes!