

QSL from Cuba

An American ham's visit provides a glimpse of Amateur Radio on the island.

Levi C. Maala, K6LCM

For Americans, Cuba has been the forbidden fruit of the tropics for 5 decades. Although Havana lies just 90 miles south of Key West, Florida, the US embargo and travel ban has kept all but a few Americans from setting foot on Cuban soil since the early 1960s. Postal mail, Internet traffic, and phone calls between the United States and Cuba must take circuitous routes through third-party nations and aging infrastructure. As a result, it is normal for most forms of communication, particularly letters and postcards, to be expensive and unreliable.

Despite these circumstances, Amateur Radio operators from Cuba and the United States are in regular contact, creating international goodwill between people with a passion for radio. In fact, an arrangement has been in place for many years that permits third-party traffic between US and Cuban hams.

My First Weekend in Havana

I had my first opportunity to travel to

Cuba in February 2014 as part of a 3-day, people-to-people tour through Insight Cuba. Such tours are one of the few legal ways for Americans to travel to the island.

Initially, the vintage automobiles and the antique colonial architecture of Havana fascinated me. Without new US imports and with limited access to parts since the 1962 embargo, Cubans must maintain their own cars and equipment. This takes patience, resourcefulness, and ingenuity. My fascination quickly turned from the antique cars and buildings to the colorful and warm culture, and the unusual and challenging circumstances of the Cuban people.

Because the Cuban government provides free higher education, it is common to be riding on a bus driven by a former helicopter pilot or to be served at one of the many private restaurants in Cuban homes (called *paladars*) by a waiter who has an electrical engineering degree. Cubans often find that supporting their families is far easier with jobs in the service and tourism indus-

tries than with careers in their particular field of study. Despite having the leading education system in Latin America, Cuba remains mostly isolated from the modern international economy and digitally connected world.

While visiting a recording studio and a carpentry workshop on our weekend tour of the capital city, I saw that the survival skills Cubans needed to make and maintain their own equipment are very much akin to the tinkering spirit of Amateur Radio. A need and desire to understand how things work, combined with a strong spirit of ingenuity and self-sufficiency, has helped the Cuban people survive waves of economic depression and the results of being divorced from the global marketplace of inexpensive imports and mass production.

A Chance Encounter

Following my return to California, I kept my ears and eyes open for Cuban stations on the HF bands. Cuba's national IARU member society, El Federación de Radioaficionados de Cuba, reports having



Pictured here in the CO2YQ shack are, from the left: Joel Izquierdo Valdés, CO2YQ; Luis Alberto Hernández Echeverría, CL2LHE; Levi C. Maala, K6LCM; Abel Guerrero Suarez, CO2SG, and Radioaficionados de Cotorro club president Guillermo Flores Álvarez, CO2ECO.



Joel, CO2YQ, enjoys working DX stations on HF digital modes from his ham shack in Cotorro, Havana using a multiband, two-element beam and a vertical antenna.

6 Meter DXCC Magic from Cuba

My 6 meter DXCC attempt started in November 1997, when a group of Swedish hams from the Kvarnberget Amateur Radio Club, SK0UX, along with Soren Pedersen, OZ1FTU, and Carlos Rodriguez, SM0KCO/CX7CO, visited my club, the Las Tunas Contest Club, T48K, to participate in the CQ World Wide DX contest (CW). Among my Cuban colleagues who participated were Oscar Morales Jr, CO2OJ, a VHF pioneer in Cuba. Watching Oscar operate 6 meters sparked my interest in the magic band.

After the contest, I began searching for 6 meter equipment, but it is very difficult to get radios here in Cuba. My 6 meter interest was dormant until 2000, when Steve Wheatley, KU9C, offered me an MFJ 9406 6 meter transceiver and a Mirage A1015G 150 W amplifier. Don Fisher, VE3ESE, managed to get the rig into Cuba for me and it finally arrived in March 2001. I immediately erected an inverted V dipole about 20 feet high.

During March and April, transequatorial propagation (TEP) is the predominant mode. I first experienced the "magic" on April 2 at 2000Z, when I heard ZL3SIX/b 599. I couldn't believe that a 20-foot inverted V could hear New Zealand. A few minutes later, I heard ZL3ZY calling on CW but the MFJ-9406 is phone only. Since then, I've never heard another New Zealand station.

On April 6, I made my first contact with Raul Romero, CE3RR (FF46), who was followed by another Chilean, Pipe Asenjo, CE3SAD. During the following days, I worked Argentina, Uruguay, and Brazil.

My excitement grew with each new contact. June and July

brought sporadic E, allowing me to contact many US, Central American, and Caribbean stations, adding to my country and grid counts.

The solar maximum of late 2001 brought F2 propagation and openings to Europe. I made hundreds of contacts just with my inverted V. Eventually, I built a two-element quad and today, I have a five-element homebrew Yagi.

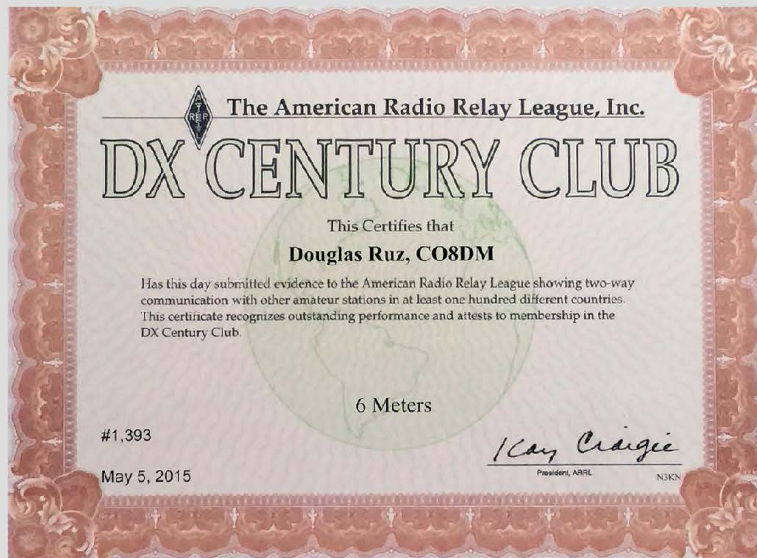
The main difficulty of operating 6 meters is in not knowing when openings will occur. Because of this, most 6 meter operators use the DX Cluster. Here in Cuba, I didn't have access to this tool. To find DX, I kept the radio on the 50.110 MHz DX window and monitored TV Channel 2 and the FM stations.

During contests, many operators travel to rare grids or DXCC entities, so working contests enabled me to add many countries and grids to my log. Another tool that helped me achieve 6 meter DXCC was learning CW, which made identifying beacons much easier and allowed contacts with many CW-only stations.

The last part of achieving DXCC is confirming the contacts. In particular, my manager Steve, KU9C, and my friends

Julio, NP3CW, and Papo, KP4EIT, provided much help and advice. Of particular note is David Former, CO8DC, whose persistence was instrumental in obtaining my 5T5SN Mauritania QSL.

After 15 years of 6 meter activity from Cuba, I am proud to have achieved VUCC and DXCC. I encourage everyone to experience and enjoy the magic band. — 73, Doug Ruz, CO8DM



5000 members from 150 affiliate radio clubs across the island. Even so, I'd never encountered a CL, CM, or CO station on the air until one evening in January 2015. I had the JT-65 application running to monitor activity on the 40 meter calling frequency. Just before midnight, I saw a Cuban station calling CQ. As soon as the call sign flashed across my screen, I pounced on the keyboard. One minute later, the operator, named Joel, was confirming reception of my signal and we completed the usual, 6-minute JT-65 exchange.

Coincidentally, 3 days after this auspicious

contact, I received an invitation from a colleague to join a professional research delegation traveling to Havana in April. Under new relaxed provisions announced by President Obama in December 2014, US citizens traveling to Cuba no longer need advance approval from the US Treasury Department. Along with this historic policy shift came the news that the United States and Cuba were also exploring the possibility of bilateral diplomacy and commerce. This caused much speculation about the future of US-Cuba relations and an increase in US professional delegations and educational visits to Cuba.

With the proverbial ink still drying on my first Cuban logbook entry, I introduced myself via e-mail to Joel, CO2YQ, to let him know about my trip to Havana. He responded with an invitation to visit his home and meet with members of his radio club.

E-mail is only now becoming commonplace in Cuba. There is no cable broadband or DSL Internet access in homes. Private citizens may subscribe to a dial-up or cellular data plan for use with e-mail only. Web browsing is slow and expensive, and must be done from Internet cafes called *salas de navegación*, all of which

are operated by Empresa de Telecomunicaciones de Cuba S.A. (ETECSA), the government-owned telecommunications monopoly.

A Visit to CO2YQ

Our research delegation had a full agenda. After a week of rigorous meetings involving travel around the provinces of Havana and nearby Pinar del Río, my father Bill and I were exhausted, but eager to visit a real Cuban ham station on one of our last nights of the trip.

Joel was expecting us at his home in Cotorro — one of the 15 municipalities within the city of Havana. With a bottle of Havana Club rum in hand, we set off from our hotel in a taxi, traveling past the palatial colonial houses turned embassies in Havana's Miramar neighborhood. We soon found ourselves passing the stark Plaza de la Revolución and merging onto a wide and well-maintained highway that led to the suburbs.

In Cotorro, we crawled slowly down narrow lanes, looking for street signs and house numbers. I finally saw a two-element beam on the roof of a white, two-story house and knew we had finally arrived at CO2YQ. Joel, his wife Elizabeth, and members of the Cotorro ham club were all standing excitedly in the front yard in anticipation of our arrival.

We made our introductions and went inside where we all shared the Havana Club rum. With everyone's thirst quenched, they all began talking at once, which was a challenge for my conversational Spanish skills. After the rum, Elizabeth served us homemade fried plantains along with some very strong coffee as Joel gave us a tour of his home station. Like any good ham, Joel was working on several projects in various states of completion. Outside, he was in the midst of erecting a tower in order to raise the height of his VHF and HF antennas. Inside, Joel's ham shack was equipped with a modified surplus commercial VHF rig as well as a modified Yaesu FT-80C solid-state HF transmitter connected to a homebrew L-813 linear amplifier.

Many newer consumer items find their



New radio equipment and parts for repairs can be hard to come by in Cuba. CO2YQ has repaired his Yaesu FT-80C with custom cut replacement buttons made from foam.

way into Cuban homes through friends and family travelling internationally. Our Miami-to-Havana flight was packed full of big-screen LCD televisions, huge satchels of clothes, boxes of electronics, and other appliances of all sizes. Air carriers are more than willing to bring whatever passengers wish to pack, as long as they're willing to pay the baggage fees. However, two-way radio gear is on the Cuban customs agency's list of prohibited items. Although Cuban amateurs may own transceivers, others, including foreign hams, risk having customs officers seize radio equipment at the airport. This makes the acquisition of new gear one of the most challenging aspects of Amateur Radio in Cuba. With limited access to new equipment and parts, Cuban hams have become very adept at DIY radio maintenance.

Despite these uniquely Cuban challenges, the hobby looks very similar to Amateur Radio in the United States. In fact, the hams in Cotorro informed me that they could use up to 2 kW of power on many of the bands (500 W more than is permitted in the United States). Around Cotorro, the local club members communicate on 2 meter simplex frequencies.

As in the US, FM repeaters allow longer-range contacts in the Havana area. Digital modes on HF are also popular among this

group of *radioaficionados* (the Spanish term for radio amateurs). With modes like JT-65 and PSK31, long-distance contacts are possible even with modest stations under the worst band conditions. As evidenced by the nearly 10,000 lookups on CO2YQ's **QRZ.com** page, Cuban stations are also quite popular with DX hunters!

It's always exciting to meet someone with whom you've only communicated over the air. For me, this meeting was particularly fulfilling. The excitement in the room during our visit to Cotorro was palpable and contagious. The excitement that we shared went beyond any political or social differences, as we had so much common ground

through Amateur Radio.

Not surprisingly, Joel had not received my QSL in the mail, which I had sent 3 months earlier. Fortunately, I had brought enough of my QSL cards to leave one behind with each of the hams I met there. As US-Cuba relations continue to improve, I can't help but hope that my next QSL card to a Cuban station will arrive at its recipient's front door before I do!

All photos courtesy of Levi C. Maaia, K6LCM, except as indicated.

Levi C. Maaia, K6LCM, an ARRL member, is president of Full Channel Labs, a telecommunications and digital technology development company. He is also a PhD candidate and research fellow at the Center for Education Research on Literacies, Learning & Inquiry in Networking Communities at the University of California, Santa Barbara. First licensed in 2006, Levi is an ARRL member and holds a General class license. He has worked with high school students in Santa Barbara, California to launch Amateur Radio-enabled and amateur TV-enabled high-altitude balloons. He is the 2013 QST video contest first prize honoree for a short film highlighting his work using Amateur Radio in K-12 education. Levi can be contacted at 133 E De La Guerra St, PMB 236, Santa Barbara, CA 93101, k6lcm@maaia.com

