# **A Crazy Idea: DXpedition to Cyprus**

## A teenager ignites his ham family's enthusiasm for a holiday DXpedition to Cyprus.

### Padraig Lysandrou, KC9UUS

Many of us have tried to contact a DXpedition that's activating a rare entity. Many of us have also dreamed of being on a DXpedition to an exotic locale with plenty of hours to enjoy making contacts. Few of us have thought of leading a DXpedition, with all the details, difficulties and expense that entails, often traveling halfway across the world. Well, I can tell you that inexperience can be bliss, because leading such a DXpedition is exactly what I did. I am 15 years old and live in Bloomington, Indiana. From June 2-18, 2012, I led a very small DXpedition to the Greek part of the divided island of Cyprus. This is the story of that experience.

It started in the fall of 2011 when I decided to join the Bloomington High School South Amateur Radio Club, K9SOU, which is led by my chemistry teacher, Mr Neil Rapp, WB9VPG. This was my first exposure to Amateur Radio, having only experienced shortwave monitoring before then. Mr Rapp presented us with materials to study for the Technician test, which I passed in October. Wanting to get on HF, I studied for the General exam and passed it in December, in January 2012, I took the Amateur Extra class exam and passed that.

My interest spread to my family members, who also became licensed. We purchased a Kenwood TS-590 transceiver for the home and I assembled a Gap Titan DX for the backyard. Chasing DX, QSO parties and special event stations absorbed my free time. Then Mr Rapp showed us the *Peter Island DXpedition 3YOX Antarctica 2006* DVD, which sparked my interest in going on a DXpedition. I realized I could take my rig with me wherever I went. The option to be portable captured my imagination.

#### **DX Details**

To operate abroad, a ham must contact authorities and fully research the laws regarding Amateur Radio use in whatever country you visit. Cyprus is divided in half; the western part is Greek and the eastern part is Turkish. The Greek side is a full member of the European Union and abides by the European Conference of Postal and Telecommunications Administrations (CEPT) agreement.





Figure 1 — Here we are visiting the English School Amateur Radio Club, 5B4ES, in Nicosia. From the front: Padraig Lysandrou, KC9UUS; Nicholas Yiakoumi, 5B4AKK; Helena Lysandrou, KC9VIM; Maria Sarah Lysandrou. [Carolyn Lysandrou, KC9URR, photo]



Figure 2 — From the third floor balcony of our hotel room in Protaras we had a beautiful view of the Mediterranean Sea. It was a great location for a Buddipole. [Padraig Lysandrou, KC9UUS, photo]



FIgure 3 — Padraig, KC9UUS, holding tight to his rig for the paddleboat ride to Fig Tree Island. [Carolyn Lysandrou, KC9URR, photo]



Figure 4 — A flat rock and a sunny day makes for a great afternoon of operating from Fig Tree Island. [Carolyn Lysandrou, KC9URR, photo]

Information on the CEPT agreement can be found on the ARRL<sup>®</sup> website.<sup>1</sup> Essentially it allows members of many countries to use their ham radios with certain limitations.

Checking in with the host country's national Amateur Radio association is a great way to make new friends and educate oneself on the local regulations. I contacted Mr Nestor Jacovides, 5B4AHZ, of the Cyprus Amateur Radio Society, who informed me that only Amateur Extra class operators can operate on Cyprus. He told me that each of the licensed hams in my family must carry a copy of our FCC license, passport, a printout of the CEPT agreement and his name and number at all times. No extra paperwork was required. Nestor also warned us to avoid all military

Information on operating outside North America is available at www.arrl.org/cept.

bases, the Turkish side and any area that could be considered politically or militarily sensitive.

Cyprus itself is a politically sensitive zone due to its location in the eastern Mediterranean Sea, a mere 67 miles off the coast of Syria and 47 miles from Turkey. It is a small island only 62 miles wide and 240 miles long. Geopolitically, Cyprus is divided into two parts; the Republic of Cyprus (Greek) comprises the western half of the island and the Turkish Republic of Northern Cyprus the eastern half.

Considering the political climate of Cyprus, if you're a minor thinking of making a trip yourself, it's necessary to have an adult with you, particularly an adult who agrees that a DXpedition is a great idea. I had my mother, Carolyn Lysandrou, KC9URR, who also holds a new Amateur Extra class license, and my father, Plato Lysandrou, KC9VIL, who holds a new General class license and speaks fluent Greek. My sisters, Helena Lysandrou, KC9VIM, and Maria Sarah Lysandrou (studying for her Technician), were a great help during the trip.

#### The Journey

The logistics of a DXpedition can be a nightmare and since I am a new ham, I challenged myself to conduct this operation as simply as I could. Airlines these days have reduced weight limits for carry-on luggage. To reach Cyprus we had to take three different flights. Keeping the weight manageable and not putting any of our valuable gear in the checked baggage became a priority. To make this easier on all of us, I limited the gear to what was absolutely necessary and could be carried by one person if need be. This amounted to the following equipment:

- Yaesu FT-897 transceiver and microphone
- 20 feet of RG-8X
- Two rechargeable gel cell batteries,
- 6 lbs each
  - One transformer
  - MFJ power supply
  - Buddipole

A few adapter plugs for connecting the transformer to the variously shaped outlets found abroad.

• A camera, pens and paper and official paperwork.

Most of the airlines limit the carry-on luggage

to one bag of no more than 45 pounds for each person. In order to comply with this limit, I divided my gear into three bags; my mother carried one of them. I placed the rig, power supply and all official paperwork in one bag with wheels. The Buddipole antenna had its own bag, which I slung over my shoulder and thus it went uncounted. I packed the coax, batteries, transformer and other items in another bag, which my father carried.

Carrying radio equipment through airport security and through international customs repeatedly can be a vexing experience. I worried that I would have to explain myself repeatedly and that the batteries might be flagged. Not so on the way there. The bag went through the X-ray machine without so much as an eyebrow raised. Security did not bat an eye for the Buddipole. No one asked a single question and not a red flag was raised. After many exhausting hours in transit, departing from Louisville, Kentucky, and changing planes in Philadelphia and Athens, we found ourselves in the beautiful new airport in Larnaca, Cyprus.

#### Awards, Contests and Finals

After arrival the jet lag hit us hard. In 2 days' time I felt better and was off to meet with a local school Amateur Radio club. The importance of high school clubs cannot be overemphasized — they have changed my life. Since it was my high school club that cemented my interest in Amateur Radio, it seemed appropriate to try to meet with a Cypriot club.

Much to my disappointment, the members of the English School Radio Club, 5B4ES, were in the midst of their final exams at the time; a large group photo of all the members was just not to be. In true Greek hospitality fashion, the incoming president, Nicholas Yiakoumi, 5B4AKK, agreed to meet with me between his final exams and show me around their shack.

The English School is located in Nicosia, the capital of Cyprus, and is the only school with an Amateur Radio club on the island. The shack is located on the large grounds of this private high school in the middle of the city. It took my breath away. Certificates and awards dating back to 1969 covered the walls, including multiple awards for the All Asian DX Contest, HA DX Contest, Black Sea Cup, WAS, Worked All Europe DX, CQ World Wide WPX. This was clearly no ordinary high school club. It had a library consisting of ARRL handbooks and publications, and books on radio theory.

The rigs included a Yaesu FT-1000MP as a main workhorse; the antennas included a Cushcraft 40 meter Skywalker, Hy-Gain TH5/ MK2 5 element tribander on a tower and a homemade inverted dipole for 80 meters.

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These were isolated by trees and located on the grounds a considerable distance from the shack and headmaster's office. We thoroughly enjoyed our visit, posing for photos and exchanging QSL cards and presents. There we were, three Bloomington High School South Amateur Radio Club members meeting English School Amateur Radio Club members (see Figure 1).

#### **A Dream Location**

The party had just begun. We were invited to visit and set up my station on a large third floor veranda overlooking the coast, outside the town of Protaras (see Figure 2), which is located in the southeastern portion of the island. The location was beautiful, from the view of the sea to the lack of obstructions in all directions.

For 5 days I operated on 20 meters using 100 W. My power supply plugged into the transformer, since Cyprus uses 240 V mains. Every day from afternoon into the evening, I enjoyed excellent propagation and pileups. I was able to communicate with operators from all over the Middle East, Russia, Ukraine, England and even the United States.

When I needed a break, my mom was eager to take over and fully took advantage of the YL factor. Many of the same operators I had worked were anxious to contact my mom as well. We ended up having longer conversations than we could otherwise have had from our home in Indiana and we enjoyed every minute of it.

When we worked the pileups, it wasn't as a DXpedition trying to make as many contacts as possible. We wanted to enjoy our contacts and speak to people from all over the region. Propagation was often excellent until 1 AM local time. There were times when we experienced heavy interference. We didn't know why it was happening, but as on any other occasion, we looked for a clear frequency to move to and keep operating.

Cyprus is an island, designated as RSGB IOTA AS-004, with several small islands off its coast. IOTA lists the Cyprus coastal islands as AS-120, with no further specification. My friend Nicholas', 5B4AKK, father suggested I visit a small island located in Fig Tree Bay, near Protaras. This small island is directly offshore from a major beach and resort area, accessible by a short paddleboat ride, which is exactly how my parents and I got there. I spent the trip deathly afraid my rig would get wet or fall overboard (see Figure 3).

Once there, I set up in a frenzy using the gel cell 12 V, 9 Ah rechargeable battery I had just purchased a few weeks ago at my first Dayton Hamvention. I operated using well under 100 W, which was enough to reach the Ukraine for my first contact (see Figure 4).

Soon the winds came blowing and took the unguyed Buddipole down (see Figure 5). Damage was done, a lesson was learned and backup repair was completed. I continued operating for a while until a Greek fellow swam up and announced to my dad "So, I must have given you the license to operate here!" He was George Christodoulidis from the Cyprus Ministry of Communication and Works, who was on holiday. He and my dad got to talking; the next thing



Figure 5 — Padraig, KC9UUS, setting up the Buddipole on Fig Tree Island with Fig Tree Bay in the background ready to help launch his signal to the world. [Carolyn Lysandrou, KC9URR, photo]

I knew they were fast friends and he was giving restaurant recommendations and talking about where he and his wife had studied in the US and about their families. I got back to making contacts. I never once had to pull out my paperwork.

Operating in paradise cannot last forever; there were other challenges for us and a lot of island to explore with my rig. We headed off to the Troodos mountain range, where Mt Olympus is the highest mountain, at 6404 feet. I thought I could do well operating from there.

#### The Attack

The Troodos Mountains run through the center of the island and are a cool break from the heat in the summer. The mountains are home to many military and communication antennas. The region is also loaded with tourists and parks. We had previously sought an activation designation from Rob Harwood, GOHRT, of the Summits on the Air (SOTA) program, but he told us that Cyprus is not yet part of the program. The radio amateurs in Cyprus are currently developing a list of potential summits that meet the height requirement of 150 meters or more.

Nevertheless, we thought it would be a nice place to try to set up the station so off we went, driving on the left side of the street, like in England, traveling up thin curvy roads, windy and wavy with the occasional rockslide evident on the roadside.

At the top, we were away from the military and communication antennas. We found a somewhat secluded park near Prodromos and away from other tourists. Under the pine trees, with a view of half the island and the



FIgure 6 — With his Buddipole out in the open, Padraig, KC9UUS, finds a shady spot to operate from while visiting the Troodos Mountains. [Plato Lysandrou, KC9VIL, photo]

sea beyond, I set up the antenna, this time securing it well. I made contact after contact. First Ukraine again, then Poland — one after another, fast and furious (see Figure 6).

Then I noticed something: bugs — big bugs. They got into my clothes, in my hair, on my shoulders, down my shirt and on the Yaesu. An immense swarm of bugs descended upon our group. It seemed like the plague of locusts that attacked Cyprus in 2004. Arthropod taxonomy was not my main interest at the time. These insects did not bite but they were large, and they flew down in vast numbers, preventing me from concentrating on my operating. Very soon enough was enough. We had to say "uncle" and pack up. We piled into the car and drove down the wavy and windy hill returning to the heat of the city. It was not a fitting end to the day!

#### **Paphos and Akamas**

If operating near the beach is good, wouldn't *on the beach* be better? With this idea firmly in mind, off to Paphos we went. Paphos is located on the southwest part of the island and is home to many British expatriates, some of whom are hams. They have a club that meets regularly in a local restaurant. Unfortunately, it was not the week of their meeting, so I could not stop by and say hello.

Instead, I went to an area called St George Beach. It was an uncrowded beach with rocky sand and a gentle breeze, a perfect place to set up and operate 20 meters. I put up my antenna securely and set my rig up in the back of our SUV. Although there was a wonderful breeze, it was still Cyprus in the summer, which means it was *hot* — shade was necessary.

Using the battery for power, I was able to contact many Italian stations, one after another. My greatest surprise was my ability to contact Greek stations located on other Greek islands. I was very happy they were located far enough away to be in the skip zone. "From one Greek island to another" I told them. I was not sure if they understood my joy in being able to make these contacts; it could very well be an everyday thing for them. For me, nothing about ham radio is routine.

The view down along the beach was stunning. The light was bright, the water clear blue. That, combined with the ability to contact Russian, Serbian, Ukrainian and Polish stations, made for a perfect day. I was even able to make a Malta contact, not a typical experience for me. This day proved the best beach day. Others followed but with a lower contact rate, which is to be expected when you operate holiday style.

Holiday style are the key words here. There are times when a DXpedition must morph a little into holiday style operation. That may not be what an obsessive ham wants to hear, but it might be necessary to keep the peace and maintain the support from family members. A little rest and swimming in the hotel pool when propagation is not the best never hurt anyone either.

We were located at the far southwest corner of the island, near the Akamas peninsula and as we traveled farther southwest we encoun-



Figure 7 — We drove up into the hills near Peyia and found this great overlook to operate from. During our DXpedition, my mom, Carolyn Lysandrou, KC9URR, often benefited from the "YL factor" in piling up contacts. [Padraig Lysandrou, KC9UUS, photo]

tered fewer tourists. There is a lesser mountain (or hill range) in the Akamas region that was just begging to be explored. We drove up toward the towns of Peyia and Kathikas looking for a remote area with a stunning overlook to operate from. It was not difficult as driving up the small mountains kilometer after kilometer presented view after unobstructed view of the sea below. We pulled off the road near Peyia at one of the highest possible points and set up (see Figure 7) the station. From there we could see Paphos, Peyia and Kissonerga below in the distance. We operated on 20 meters till after sunset. Propagation was not as good that day, but we made many Italian contacts.

#### **Bittersweet Departure**

We went back to the hotel for a night of great food and Greek dance. Opa! Before we knew it, it was time to pack to return home. We packed our gear as before. Exiting the country was easy but bittersweet. The people were so hospitable and the DX was so good, it was hard to leave. Our flight to Athens went smoothly, but we hit a bump going through security in Athens. They asked to look at the radio very quickly but asked no questions. The official picked our carry-on bag apart and went through our souvenirs with a fine-toothed comb. What did it hold? A few papers, tourist brochures, a few assigned reading books for high school English class and some Cyprus stamps.

Everything else followed as smooth as silk, the entire DXpedition took place without my knowledge of the arrest of tourist and Amateur Radio operator Baldur Drobnica, DJ6SI, in Greece. Had we known of his arrest we may not have considered such a journey at all or we would have been too frightened to pull out the rig.

A DXpedition can be easy and relatively stress free. It can be accomplished on all levels from huge operations to the most exotic locations to small and simple but satisfying. It was certainly a learning experience, but for me, it was much more than that: it has firmly established ham radio as a lifelong hobby.

#### Acknowledgments

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A special thank you to my mom for her unusual request for a Mother's Day present the Yaesu FT-897 — which just happened to be the perfect rig for our adventure.

I also want to thank my sisters Helena, KC9VIM, and Maria Sarah; Nicholas Yiakoumi, 5B4AKK, and his family for their exceptional hospitality, and Nestor Jacovides, 5B4AHZ, of the Cyprus Amateur Radio Society for his advice about Cyprus. Finally, I would like to thank the Bloomington Indiana Amateur Radio VEC team: AB9WW, K9FIC, K9FK, K9MEW, K9ZRL, KB9LGS, KB9RVB, KC9ACL, N9MEW and N9PDC, who were always there to encourage my family to *study and test, study and test.* 

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# SDR at the Summit

# A laptop, a loop and a low power software defined radio bring high tech to a North Carolina mountaintop.

## Dennis Lazar, W4DNN

The uphill trek was a bit more taxing than we had expected. The June sun was warm, even though the temperature hovered around 68°. The sweat was breaking out and the backpack was feeling heavier with each 100 feet of elevation. My spouse, Ruthie, K4KLQ, and I paused many times to take a swig of water and admire the last of the withering rhododendron blooms adorning the high country while waiting for our panting to subside. The vista, visible through breaks in the trees, was breathtaking; row upon row of misty blue tinged mountains marching out toward the stark blue horizon.

We finally reached the summit at 6500 feet. We set our radio gear and antenna on some large flat rocks (see Figure 1) and soon I was scanning the panadapter displayed on my computer screen for 20 meter CW signals. While clicking the mouse on a particularly strong station calling CQ, I prepared to give him a quick call, but another station popped up right next door. I narrowed my bandwidth and adjusted the tracking notch filter to clear the frequency. "Turn the loop a little to the right" I told Ruthie. In a flash I logged a 579 contact from Minnesota and entered it into the computer log. Wow, high tech low power operating al fresco is the greatest!

#### **How It All Began**

My love affair with low power began in 1967 when, with a homebrew one tube transmitter, I activated Biorka Island, Alaska (AK144S) for the US Islands (USi) program (www. usislands.org).<sup>1</sup> I don't think anyone has been back there since, because my old call sign, KL7FSX, is still listed as the activator in the USi directory.

In 2012 and a much warmer location — my backyard in Port Charlotte, Florida — I was experimenting with a homebrew small magnetic loop antenna on 20 meter CW, radiating 5 W from a Yaesu FT-817 transceiver. The

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first station I worked was Alan, NM5S, operating from the summit of SOTA W5N/PW-027 in the Pecos Wilderness of New Mexico. So I wondered, what the heck is SOTA? Once I found out, I was hooked.

SOTA is the acronym for Summits on the Air, a worldwide award program similar to Islands on the Air (IOTA). The objective is to activate or work the highest summits in each state or country. Stations can be "activators" or "chasers" and points are awarded based on the elevations of the summits and the difficulty getting to them.

Activators range from weekend strollers to seasoned mountain goats. Activating a summit can be as easy as driving to a mountaintop park and setting up the rig on a picnic table (it



Figure 1 — On the summit of Craggy Knob, Dennis tunes the loop antenna on a convenient flat rock.



Figure 2 — This first attempt at a small loop theoretically should not have worked but stations in New Mexico and North Dakota didn't know this.

can't be attached to your vehicle). At the other end of the spectrum, you can hike to a remote peak in the dead of winter and risk frostbite while erecting an antenna on a rocky escarpment to activate a summit for the first time. Activators can be spotted on the SOTA website or they can be self-spotted if cell phones work up on the summit. For information on the program go to **www.sota.org.uk**.

### **It's a Plan**

Casual contest operating and DX are great fun for me, especially with a 5 W rig in the great outdoors, but there are sacrifices. Most low power rigs lack the sophisticated features of their larger base station cousins. I thought "Why not try backpacking an SDR to activate a mountain peak?"

The idea led to a bit of experimentation, culminating in three main components: a Flex-1500 SDR, a compact laptop computer and a small magnetic loop antenna. As RVers and avid hikers, Ruthie and I wanted to make sure this combination could be "trail friendly" for casual picnic table operation as well as for my planned trek to the clouds.

One of our favorite hikes has been from the Blue Ridge Parkway in North Carolina to the top of Craggy Knob, a