

NPOTA Adventures in Paterson Great Falls National Historical Park

A New Jersey club's operation, run in conjunction with the park's Science Fair, resulted in hundreds of children learning about ham radio.

Susan Frank, W6SKT

I fell in love with America's National Parks in 1961, when I was 12 years old. Embarking on our obligatory family road trip, our parents packed us into our 1955 Ford Country Squire "woody" station wagon in Los Angeles. We visited Sequoia, Kings Canyon, and Yosemite National Parks. My father was also a history buff, and travels soon expanded to include National Historical Sites.

Visiting at least one National Park is now an essential part of every vacation. I have found that few moments in life can compare with the thrill of driving through the hallowed gates of a National Park...that is, unless it is the opportunity to meet new people and travel in the virtual world of Amateur Radio.

I became interested in Amateur Radio in 1983, largely in response to hearing Owen Garriott, W5LFL, the first "Ham in Space," transmitting from the space shuttle. I heard W5LFL on a friend's scanner, and my disappointment at not being able to respond to Garriott's CQ motivated me to get my Novice license in 1984, then upgrade to Tech and finally, to a General class license. Today, my husband and I are both members of the Fair Lawn Amateur Radio Club W2NPT



Susan Frank, W6SKT, handing finished QSL cards to Park Ranger Ilyse Goldman at Paterson Great Falls National Historical Park. [Ed Efach, WX2R, photo]

(flarc.net) in Fair Lawn, New Jersey.

In 2015, when the ARRL announced the National Parks on the Air (NPOTA) event, which coincided with the National Park Service's Centennial, I couldn't imagine anyone being more excited than I was — two of my favorite activities combined in one event. I knew our club had to participate in this event. I also knew I wanted our effort to be a "Five Star Activation," following ARRL guidelines, enhancing public awareness of Amateur Radio, and highlighting a local National Park.

Choosing a Park

New Jersey had 13 sites approved by the ARRL for NPOTA activation. I began to investigate Paterson Great Falls National Historical Park. Located just across the Passaic River from Fair Lawn, it was the closest National Historical Park to our club's location.

Paterson Great Falls National Historical Park is a geologic phenomenon; a 77-foot-high waterfall (one of continental America's largest) formed approximately 13,000 years ago on the Passaic River. In 1792, a consortium of businessmen, led by then-Secretary of the Treasury Alexander Hamilton, was formed to make Paterson, New Jersey the first planned industrialized city in the new United States. They harnessed the power of the falls to create canals called "raceways" around the city, which allowed manufacturers in Paterson to use diverted water power to run their factories.

I wondered if Paterson Great Falls, as a newer National Park, first designated in 2011, might welcome the positive exposure, and whether they would be open to a full-scale NPOTA activation. I also wondered how I might sell the idea of NPOTA at Great Falls to the club. As it happened, in December 2015 our local TV channel was broadcasting a feature about the park. In the cold of winter, I watched a video created in the middle of summer, when the park looked lush and green. Park Superintendent

Darren Boch was being interviewed, and his enthusiasm and historical narration convinced me I might be on to something.

After viewing the Great Falls video, our club president, Karl Frank, W2KBF, contacted Park Ranger Ilyse Goldman to discuss the possibility of operating at Paterson Great Falls for NPOTA. When Ilyse told him her father had been a ham, he hoped her positive memories of Amateur Radio would help support our proposal.

Ilyse turned out to be the best partner we could have had for this project. She was enthusiastic about her job as a Park Ranger, understood our mission, and jumped right in to help. Our first issue was choosing a day for our activation.

The Planning Begins

Ilyse suggested that we operate on Earth Day, April 22. The park would be sponsoring a Science Fair that day, which would be attended by hundreds of local school children. This would be a great opportunity to showcase Amateur Radio. The only problem was, April 22, 2016 fell on a Friday, and many of our club members would not be able to attend. We decided to operate on both Friday, April 22, and Saturday, April 23, to provide all of our club members the opportunity to participate.



Jessica Frid with her ham radio mentor, Lowell "Van" Van't Slot, W2DLT. [Susan Frank, W6SKT, photo]



Fair Lawn ARC members Lowell "Van" Van't Slot, W2DLT, and Brad Kerber, KD2GNY, erect Brad's modified Buddipole. [Susan Frank, W6SKT, photo]

Ilyse gave us operating space on a paved, elevated balcony, strategically located at one prime viewing area of the falls. It would fit our 10-foot × 10-foot pop-up tent, and give us some room to expand. This would put us in the thick of the action at the Science Fair. Even better, this spot was adjacent to a 50-foot tree, with several smaller trees close by, for raising antennas.

Because her late father had been a ham, Ilyse knew about QSL cards, and asked us if we planned to send cards. She offered me a beautiful photo of the falls, taken shortly after Hurricane Sandy, for our card. When we pulled our dipole and generator out of the car, Ilyse asked, "Is that a dipole? My father used to have those all over the yard!" She continued, "There should be no problem setting this up, but I will check with the Superintendent to make certain." Permission to use the generator was also no problem, as generators had been used at previous Science Fairs.

To work within space limitations, we decided to set up only two stations. For

long haul on HF, we would use an IC-746 PROIII with a multiband 133-foot off-center fed dipole strung in the trees. This would provide some gain on 40 meters for morning contacts, and also for 20 meters when that band was open later in the day. For local work, we would use a VHF radio and ground-plane antenna so that nearby hams could work us using FM simplex. Furthermore, the VHF radio could be used as a GOTA (Get on the Air) station, and to allow visiting students to make a contact using Amateur Radio.

Final Touches

At our club's March business meeting, we showed the entire club our photos of Great Falls and our well-situated operating location. The club voted unanimously to approve the proposal to activate Paterson Great Falls and to have 500 QSL cards printed. Our Webmaster, Jim Cooper, W2JC, got to work setting up our Logbook of The World account. We sent the QSL cards to the printer, and posted a facsimile of the card on the club website.

The next few weeks were used to refine our plan. Club members were consulted, and we confirmed the decision to operate from 9 AM to 5 PM on both Friday and Saturday. We selected target operating frequencies on 40 and 20 meters and posted our plans on the NPOTA website.

April 22 — Earth Day

We arrived on site at 8:30 AM on Friday, made final adjustments to the dipole, placed the generator behind a stone wall, and tied it to an outside railing on the platform's outside edge so no one would trip over it. We set up the IC-746 PROIII under the pop-up tent, and put up a homebrewed 2 meter antenna loaned by Rachel Weiss, AJ4WD.

We decided early in the process that the event would be run not only for the benefit of National Parks, but also for the maximum enjoyment of our club members. This meant operating with a comfortable, relaxed style and not fretting over the number of QSOs per minute. We used a buddy system at the station, with one person at the controls and a second person logging using *NIMM* software.

A multichannel headphone amplifier provided separate gain controls so that both operator and logger could adjust volumes individually for their headsets. Relief operators were available in case anyone became fatigued, and we were careful to take the

time to invite members who were a bit rusty to get on the air and operate, even if it might slow down the QSO rate.

The dipole performed well, and many club members operated the HF station. For some, it was their first time on HF. Lowell "Van" Van't Slot, W2DLT, an inveterate contester, deserves an honorable mention for operating the most hours, and the most consecutive hours on the rig.

Right next to the HF station, Captain Larry Wolff, WA2ALY, manned the Morse code table with a battery of code keys and oscillators. Larry would ask each visiting student their name, write out the name in *dits* and *dahs* for the student to send, and Elmer them through it. Some of these students had learned about Morse code in the classroom, and were very interested because they had never tapped a key before.

At the 2 meter GOTA station, students were invited to make voice contacts. Jim Cooper, W2JC, made stickers to put in the address section of our QSL card for children who made contacts on the GOTA station. The stickers had a space for the child's name, and those who made voice contacts were rewarded with the card as souvenir. Karl Frank, W2KBF; Susan Frank, W6SKT, and Rosalyn Roimisher, KD2GKA, ran this station.

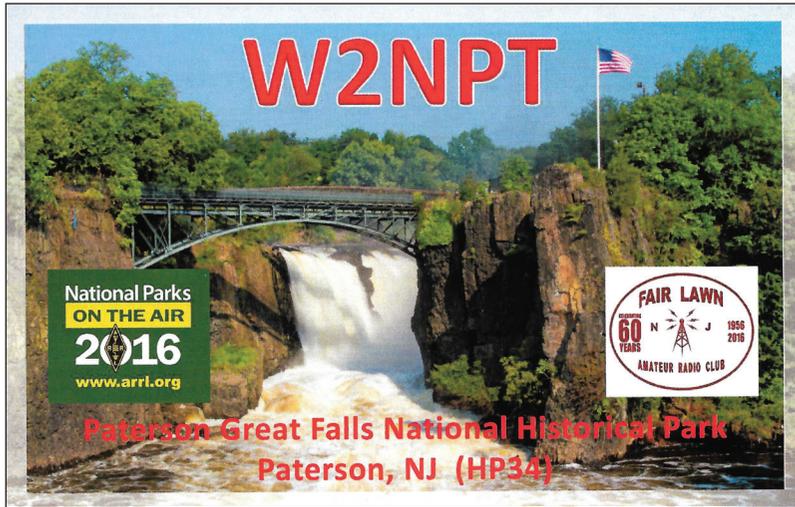
If there was no ham within range of the 2 meter station to answer the GOTA CQs, Bill Montague, KB2OCJ, or Rosalyn Roimisher, KD2GKA, would step offsite with a handheld radio to provide the "contact" for the children. Pete Adely, W2HP, and Kathy Adely, W2YSF, also helped by working the GOTA station while they were driving in the area. It was important for the GOTA kids to make a voice contact. Without exception, every child's face lit up when they heard their name over the air.

By the time the Science Fair ended at 2 PM, hundreds of students had been introduced to Amateur Radio, and 66 local school children and Boy Scouts had made contacts using the 2 meter GOTA station.

Day Two of the Operation

Heavy rain arrived overnight, and tapered to a light drizzle the following morning. The rain stopped shortly after our pop-up tent was in place, and the rest of the day was clear. In fact, the sun was so bright that we had to use a cardboard box to improvise shade for the computer screens.

More club members as well as friends and



Fair Lawn ARC Special Event QSL card for our operation at Paterson Great Falls National Historical Park. [Photo "After the Storm," copyright Daniel C. Krebs. Card design by Susan Frank, W6SKT.]

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family were able to participate on Saturday. While waiting their turn to operate, many took advantage of the good weather to roam the park, visit the nearby Paterson Museum, and walk to the bridge over the falls to look at our operating position from a distance.

Brad Kerber, KD2GNY, surprised us by bringing his portable IC-7200 station and modified Buddipole™ antenna, so we were able to run two HF stations for several hours. Kids from two local Boy Scout troops operated the 2 meter GOTA station. A budding ham, Travis (whose grandmother, Kathy Adely, W2YSF, brought him to the event), was thrilled when his grandfather Pete Adely, W2HP, called him on 20 meters from home.

Success and Gratitude

All Fair Lawn Amateur Radio Club members agreed that our NPOTA activation had been a great success. We made over 600 contacts, including contacts with 19 countries (we had to order more QSL cards). Our contacts were shown in real time to visitors with pushpins on maps at our HF table. Thirty of our members, some with their families, plus hundreds of visitors attended the event. Even our non-ham neighbors in Fair Lawn accepted our invitation to visit the falls.

We must first thank Park Ranger Ilyse Goldman, for all of her help and support. Our event would not have been such an overwhelming success without her input and encouragement. We also thank Superintendent Darren Boch for his informational video, and the role he unknow-

ingly played in our decision to approach Paterson Great Falls National Historical Park for our NPOTA event. He was also most kind and supportive. Additionally, we thank Park Ranger Ernie Hernandez and the other outstanding Park Rangers who were on duty both Friday and Saturday. We also thank the National Park Service for their support in this program. And, of course, thanks to all of the hams from the Fair Lawn Amateur Radio Club who enabled this event to run so efficiently.

Susan Turner Frank, W6SKT, worked in LA as an artist and model builder for 15 years until she moved to Fair Lawn, New Jersey with her husband Karl, W2KBF, in 1988. She earned a BA in Radio, TV, and Motion Pictures from the University of North Carolina at Chapel Hill, and an MA in English from Rutgers. She is currently working as a freelance writer. Her ham radio interests include operating Morse code on HF, and satellite operations. More recently, she has focused on introducing young people to ham radio through helping with GOTA stations at public events. Susan can be reached at stfrank3@verizon.net.

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