



# NCDXF newsletter

www.ncdxf.org

Summer 2020

## South Orkney Islands — VP8PJ

Gene Spinelli, K5GS, and Dave Lloyd, K3EL

THE SOUTH ORKNEY ISLANDS ARE located in the Southern Ocean, some 600 km (375 mi) northeast of the Antarctic Peninsula and 1,400 km (850 mi) southwest of Tierra del Fuego at the southern tip of South America. The largest, Coronation Island, is mountainous with peaks rising to nearly 1,300 meters above sea level and is mostly covered by glaciers. We operated from the smaller Signy Island, also rugged and glaciated, with its highest point rising to around 290 meters. The temperature is moderated due to the surrounding ocean; however, the South Orkneys are buffeted by strong winds and receive much rain and snow throughout the summer.

Both Britain and Argentina have made claims on the islands, but since they are within Antarctic Treaty territory such claims are now held in abeyance. Britain and Argentina both maintain bases on the islands. The British Antarctic Survey base, Signy Research Station, established in 1947, is open November to April (southern hemisphere summer), and our operating location was approximately 1 km away. South Orkney's permanent residents include Antarctic fur seals and elephant seals plus three species of penguins and various nesting sea birds.

### Planning and prep

After the very successful 2018 VP6D Ducie Island DXpedition, members of the Perseverance DX Group (PDXG) identified several possible entities for our next project. We contacted Nigel



Jolly, K6NRJ, owner of the RV *Braveheart*, to inquire about his availability for our selections, with the South Orkney Islands being one of them.

Nigel's reply was positive for a South Orkney Islands project, and though his schedule was full, including the October 2019 VP6R Pitcairn Island DXpedition, he could pick us up in Punta Arenas, Chile, on 15 Feb 20, take us to Signy Island for a 2-week DXpedition, and return the team to Chile on 12 March 20. After reviewing his proposed contract and pricing we accepted the proposal.

Nigel and *Braveheart* have a long history of providing outstanding support to the DXpedition community, and for this journey, Nigel's son, Matt, was the skipper.

The South Orkneys proved to be a popular choice and our on-island team was quickly named. Our international team comprised: Dave Lloyd, K3EL; Les Kalmus, W2LK; Gene Spinelli, K5GS as team leader and co-team

leaders, respectively, Heye Harms, DJ9RR; Mike Shapiro, WA6O; Vadym Ivliev, UT6UD; Steve Dyer, W1SRD; Walt Wilson, N6XG; Laci Radocz, HAØNAR; Ken Karr, NG2H; Arliss Thompson, W7XU; Rob Fanfant, N7QT; Hans-Peter Blaettler, HB9BXE, and Alan Cheshire, VK6CQ.

*continued on page 3*

### INSIDE THIS ISSUE

VP8PJ, South Orkney Islands .....	1
President's message .....	2
NCDXF Contributions .....	2
ZK3A, Tokelau .....	8
Board of Directors profile ..	11
CQ DX Hall of Fame inductee .....	12
Blast from the Past .....	12
Cycle 25 Fund & Cycle 25 Society .....	13
NCDXF lending library .....	13
NCDXF products .....	13



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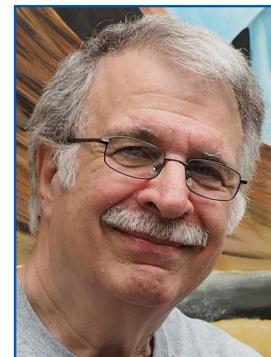
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## From the President's desk

SO MUCH HAS CHANGED IN THE WORLD OF AMATEUR Radio since our last newsletter five months ago. Because of the pandemic, most major national and local conventions (IDXC, Hamvention, W9DXCC, W4DXCC, Friedrichshafen, etc.) have been cancelled. And most major DXpeditions have either been cancelled or rescheduled for next year, due to travel restrictions and/or the inability to receive use permits for rare DXCC locations.



To stay connected to our contributors during this down time, NCDXF sponsored its first-ever DX Forum on 23 May, when the *VP8PJ* team led by Gene, K5GS; Les, W2LK, and Dave, K3EL, gave an excellent review of their successful DXpedition to the South Orkney Islands during February-March 2020. The webinar was attended by hundreds of avid DXers from six continents. Plans for two more NCDXF-sponsored DX webinars this year are underway. Stay tuned.

We have provided financial support for three 2021 DXpeditions: *W8S* (Swains Island); *CYØC* (Sable Island) and *JXØX* (Jan Mayan) — and expect to support additional DXpedition grant requests, as conditions improve over the next year.

NCDXF has also committed \$2,500 to the *Youth-On-The-Air Region-2 Convention* scheduled for next July in Cincinnati. YOTA's mission is to build skills and foster lasting friendships and mentors with younger Amateurs.

While sheltering in place, we all have many opportunities to participate in virtual meetings to learn new skills and stay in touch with our ham radio colleagues. One example is QSO Today's Virtual Ham Expo scheduled for Saturday/Sunday 8-9 August 2020 ([www.qsotodayhamexpo.com](http://www.qsotodayhamexpo.com)). Two of our officers — Ned, AA7A, and Glenn, WØGJ — are among the invited speakers and both are members of the CQ DX Hall of Fame.

Finally, I'm pleased to report that 17 individuals have now included NCDXF in their estate plans. The goal of the Cycle 25 Fund is to double NCDXF's endowment through significant estate gifts from current DXers, which will allow NCDXF to continue its mission throughout sunspot Cycle 25 and beyond. See the separate Cycle 25 update in this newsletter.

Once again, on a personal note, I want to thank each of our contributors for your continued support. You are the backbone of NCDXF. We could not do what we do without you. A full list of individual and club contributors is always shown on our website ([www.ncdxf.org](http://www.ncdxf.org)).

I certainly hope you are taking good care of yourselves during these difficult times, as we wait for calmer waters, hopefully soon.

As always, if you have comments or suggestions to help improve NCDXF, please contact me directly. I would love to hear from you.

73 and Good DXing!

**CONTRIBUTIONS** NCDXF relies heavily upon the generosity of its contributors to fund various projects. We ask you to consider making an annual contribution of US\$50 or its equivalent in foreign currency. However, we do not wish to exclude anyone from the FOUNDATION for financial reasons. If \$50 is not within your budget, then please give what other amount you can. Naturally, we welcome contributions in excess of \$50! NCDXF is an organization described in Section 501(c)(3) of the Internal Revenue Code and all contributions are tax-deductible to the extent permitted by law for U.S. taxpayers. Send your contribution to: NCDXF, PO Box 2012, Cupertino, CA 95015-2012, USA. You may also contribute and order supplies online via our secure server, visit [www.ncdxf.org/donate](http://www.ncdxf.org/donate).



*Pack ice along shoreline. Photo: K3EL*

Many team members knew one another from previous PDXG or other DXpeditions, or had met at a ham radio event. We knew there would be significant interest from the DX community since the South Orkneys' last major DXpedition was VP8ORK in 2011.

In preparing for the expedition we held several pre-expedition planning teleconferences with topics such as living on the island, antenna planning, operator scheduling, travel planning, permitting and licensing. The detailed plans were documented in the VP8PJ Operations Manual and shared with everyone prior to departure.

Operating from any Antarctic location is a challenge because, even during the Austral summer, bad weather can be expected. An early priority was to identify shelters that would stand up to the expected weather conditions so that the team could operate safely and effectively. We secured two WeatherPort portable buildings, which we used to establish a single campsite on the island; a separate, smaller tent contained a toilet. One building housed the radio equipment with seven operating positions as well as a small camp kitchen where we reheated prepared food brought daily from the *Braveheart*. The other building was equipped with 14 bunks for sleeping. We prepared detailed tent layouts to make sure everything we needed would fit and to facilitate setup on arrival.

Of concern was the weight of materials that we had to transport plus the time it would take to put up the shelters. To address these issues, we designed and built a prefabricated floor system

out of plywood and metal construction studs, cut small enough for one person to handle in windy conditions. These were laid down next to each other and joined together to form a solid floor. Several team members traveled to California in the summer of 2019 to prepare the WeatherPort buildings and prefabricate the floor.

We decided to operate from the same site that VP8ORK used in 2011, near Waterpipe Beach on the eastern side of Signy Island because it has a sheltered anchorage and its slightly inland location is protected from the worst of the wind by several low rocky knolls immediately surrounding the camp.

The island is well positioned for propagation to Europe (EU) and North America (NA), however the hills immediately to the north and east made the take off for NA less favorable than that to EU, which is straight over water. Asia (AS) and much of Oceania (OC) are challenging from the South Orkneys with a path over the South Pole. Both South America (SA) and Africa (AF) are relatively close with excellent propagation much of the time.

These considerations were key design factors for the expedition.

At the bottom of the solar cycle, only a few bands would be open at any one time so the antenna plan and station design were developed to address propagation and paths, allowing two or more stations to operate simultaneously on the most active bands. Much of the antenna preparation work was performed by Walt, N6XG, and Steve, W1SRD, and several team members met in California to help consolidate, assemble, test and pack antennas and equipment for sea shipment.

### Red tape

The South Orkney Islands are located at, and below, 60°S, which places them under the Antarctic Treaty System. A DXpedition is considered a tourist activity, which is permitted under the treaty, but an environmental assessment and a waste permit, issued by a signatory country of the treaty, are required. Being a US-led project, we interacted with the US Department of State (Polar Affairs), the National Science Foundation and the Environ-



*VP8PJ team at Punta Arenas. Photo: K3EL*



*Moxon and vertical antennas Photo: W7XU*

mental Protection Agency. The permit process took about eight months from start to finish.

We had input from Ralph Fedor, KØIR, who managed the process for VP8ORK, and the various agencies — keenly focused on their mission of protecting the environment in accord with the provisions of the treaty — were helpful throughout the process. We created two detailed documents that answered many questions about the project, including explanations of our intended activities, and of the capabilities of the *Braveheart*.

The radio license and call sign proved to be surprisingly elusive. Previous DXpeditions to the South Orkneys applied and received the license/call sign from the Falkland Islands telecommunications authority; however, while we were organizing the DXpedition, the Falklands telecommunications authority was being restructured and their licensing process was temporarily suspended.

After a conference call with the ARRL we decided to use VP8/VP8DXU, as team member Arliss, W7XU, was the holder of VP8DXU — it made sense to use his call. Subsequently, Alan, VK6CQ, joined the team, held VP8PJ, which was issued during his working years in Antarctica — and his license was specifically issued for the British Antarctic Territories, which included the South Orkney Islands, so it was an easy decision to change to this call. The DX community applauded the

use of the shorter call sign.

Although a travel visa is not required for Antarctica, team members were responsible for obtaining the proper documents to enter Chile.

### Travel and set up

The team met in Punta Arenas, Chile, a popular transit point for visitors to Antarctica and Patagonia, where we spent a few days buying last-minute items — including a 3-day supply of emergency food should the weather make replenishment from the *Braveheart* impossible.

We also enjoyed a visit with members of the Radio Club of Punta Arenas, CE8RPA, and took in the sights.

On 14 Feb, our equipment was loaded aboard *Braveheart*, and we departed Punta Arenas the following day for the planned 6-day transit to Signy Island. (A Garmin inReach personal locator allowed many of you, as well as our families, to follow our progress.)

We arrived at Signy earlier than planned but were disappointed to find access to our intended landing spot blocked by upwards of 100 meters of pack ice. The skipper and team members investigated the extent of the ice and concluded it would be too dangerous to land, so we evaluated alternative landing sites. We contacted the staff at Signy Research Station for their advice and we learned that the ice had blown in the previous night and a

change in wind direction was expected that evening which would likely move the ice out.

As predicted, the ice was dispersed enough the next morning that we could begin ferrying people and equipment to the island using an aluminum-hulled boat especially constructed to operate around ice. The radio and campsite equipment were ferried ashore. Being relatively late in the season, there were very few fur seals at our landing site so we were able to transfer equipment across the slippery, rocky foreshore. From there, the *Braveheart* crew and the radio team moved the equipment approximately 300 meters up a steep and rugged slope to the camp location.

A second location was used for landing of personnel, by stepping out of the boat onto boulders and then climbing up rocks to reach the campsite's path. We constructed a temporary ladder to facilitate this landing, which was removed upon our departure.

### Island life

Our first priority was to establish shelter, and the prefabricated tent flooring was placed on the ground and the buildings erected. This was followed by parallel workstreams of antenna construction, equipment setup, and furnishing of the sleeping and operating tents.

Signy Island is mountainous, with very rocky and uneven ground — losing your footing could be dangerous. The weather was cold and windy, with rain and snow most days, and the temperature hovered around freezing most of the time; the wind and precipitation made it feel colder. Assembling antennas or anything with small pieces of hardware was difficult in the harsh climate.

Our meals were eaten on the island, where breakfast foods were stored and regularly replenished by the *Braveheart's* crew, and, weather permitting, two hot meals were brought ashore each day. Except for the occasional trip back to the ship for a shower and a warm bed, everyone stayed on the island for the duration of the DXpedition.

The high wind conditions proved to be a challenge for the verticals and regular maintenance was required to keep them up; better guying using



*Prefabricated floor for the Quonset huts. Photo: NG2H*

stakes rather than tying off to surface rocks improved wind survival. The Moxons were situated on the Marble Knolls, low rocky ridges that surrounded our camp, giving them enhanced effective height. The EAntennas and Spiderbeam aluminum masts withstood the rigors of Antarctica and performed well in the exposed location.

The terrain and location of our campsite prevented us from having Internet access, and although *Braveheart* was far enough away from the mountains to get a signal, weather conditions made landings too hazardous to go back to the ship on a daily basis. Instead, we kept in contact with the pilot team using the Garmin inReach's texting capability — not perfect for long detailed reporting, but good enough to pass pilot reports. On the ship, we used the Inmarsat satellite phone for calls to home and to the chief pilot, Glenn Petri, KE4KY, and the Inmarsat BGAN to upload logs and exchange emails with the pilot and support teams.

### Radio operations

The first contact was made on 40 Meters CW with DL2HRF on 22 Feb 20 and the final contact was on 30 Meters CW with WA6RRI on 6 Mar 20. A few minutes after the first QSO was logged two additional stations came on line.

The next morning, the team continued antenna and campsite buildout and by the end of that day, most stations were operational. We were delighted to find good propagation and reasonably strong signals to many parts of the world, with EU being the best. Later into the expedition conditions dropped off a little, but overall, we had few complaints about propagation.

During periods of good propaga-



*Inside the operating hut with all stations operational Photo: NG2H*

tion all seven operating positions were in action. As high-bands propagation waned during the night, SSB usually dropped out first. The SSB operations would shift to FT8, where a single operator could handle multiple FT8 stations simultaneously. The radio operations plan included a rack of high-power bandpass filters manufactured by Low Band Systems. Even with our Moxon and vertical antennas in close proximity, the

combination of Elecraft radios and LBS filters proved to be very effective and we had very little interstation interference.

An important aspect of VP8PJ planning was operator scheduling. We used a similar plan to the one that was used on Ducie Island, VP6D. For each four-hour shift operators were scheduled on four or five stations, depending on expected band activity, with the remaining stations available for any other team member to use. The scheduled operators worked under a designated shift captain who decided which bands/modes had priority during their operating shift. Operators using an open station could choose to do whatever they wanted so long as the band/mode was not already occupied by a scheduled operator since the scheduled operator always had priority. This process ensured that all team members had a sufficient amount of operating time, while providing an opportunity for extra time on-the-air for those who wanted more radio time. Every few days each of the three radio teams would move their start time by four hours, thus over the project's duration each

team experienced different geographic openings and band conditions.

Our final QSO count was 83,782 (after the WSJT-X [RR73] machine-generated dupes were removed by PDXG Log Search/OQRS software,



*The VP8PJ campsite. Photo: W7XU*



Dave, K3EL (left), and Gene, K5GS, at the makeshift ladder constructed to allow us to reach the campsite easier. Photo: W7XU

which looks at each FT8 contact and deletes subsequent QSOs for that call sign within a two minute window). QSO distribution was as follows: EU 52.7%, NA 34.8%, AS 6.4%, SA 4.5% and AF/OC 1.6%, with 20,523 unique call signs and 168 DXCC entities (see table for additional details).

We had 773 “Not in Log” (busted call) inquiries, which is a very small number for 83,782 QSOs. This was a good indication that the VP8PJ operators paid close attention to logging accuracy. However, there were a few pirates operating and unfortunately some claimed QSOs were for dates, times and/or bands when we were operating elsewhere or off the air.

Each morning we’d look at the N1MM+ graphs and see that we were making between 5,500 QSOs per day from the first full day of operating to 9,200 QSOs per day on the best operating day. Considering the propagation and less than perfect paths, signals from all over the world were good. Pilot reports and over-the-air reports indicated we were being heard without too much difficulty on most bands, and even 10 and 12 opened a few times. We used WSJT-X software version (2.2.0) with the fox/hound operating mode and most callers understood the FT8 oper-

ating protocol. However, some callers didn’t get the message straight away and were calling below 1,000 Hz. This improved as more people got the hang of fox/hound operation.

As with VP6D, it was interesting to see the popularity of FT8 not just amongst the callers, but also with the DXpedition operators; perhaps the chance to remove the

headphones and relax was a welcome break from the adrenaline rush of working a pileup on the other modes.

During the voyage to Signy Island we operated as ZL1NA/MM and also had a WSPR station operating as VP8PJ.

## Equipment

We were well-supported by manufacturers and distributors of Amateur Radio equipment: Elecraft loaned eight K3s transceivers, KPA-500 amplifiers, P3 panadapters, KAT-500 tuners and

a KPA-1500 amplifier; DX Engineering donated coax, connectors, tools, antenna parts and accessories; WiMo (Europe) donated two triband and two WARC band Moxon antennas. Spiderbeam provided a substantial discount on the telescoping masts and Arlan Communications loaned (and later discounted) their RadioSport headsets. Low Band Systems discounted high-power band pass filters, which were a great help in reducing interstation interference. The DX Store and ON5UR QSL Print Services subsidized QSL card production. Inmarsat Government donated communications equipment and services. Mastrant and Clamcleat each donated guying ropes and fittings. The generosity of these manufacturers and distributors is greatly appreciated.

Team members provided SPE and OM Power amplifiers and logging computers were Lenovo X-230 laptops belonging to PDXG. Many of the Pelican and other shipping cases were loaned by Paul Ewing, N6PSE (Intrepid DX Group), and Jim Sansoterra, K8JRK, while others came from the team.

The antennas included two EA-antenna triband Moxons; two EA-antenna 12/17 WARC Moxon antennas; verticals on 60, 80 and 160; four squares on 30 and 40; a dipole for 40, and VDAs for HF.

## Departure

A DXpedition team needs to create a departure plan and that begins by merging the team’s plan into the skip-

Band/Mode	CW	FT8	RTTY	SSB	Total QSOs	Total %
160M	1,232	828	0	0	2,060	2.46%
80M	2,515	2,563	0	190	5,268	6.29%
60M	0	1,559	0	0	1,559	1.86%
40M	6,824	5,704	14	1,979	14,521	17.33%
30M	8,799	5,226	737	0	14,762	17.62%
20M	8,396	3,534	1,232	5,762	18,924	22.59%
17M	6,920	4,985	417	4,719	17,041	20.34%
15M	4,089	1,925	40	1,351	7,405	8.84%
12M	1,083	595	0	46	1,724	2.06%
10M	285	233	0	0	518	0.62%
Total QSOs	40,143	27,152	2,440	14,047	83,782	100%
Total %	47.91%	32.41%	2.91%	16.77%	100%	

per's departure schedule. We began by removing non-essential equipment from the island as soon as we determined what was not needed, then antennas were gradually removed, stations disassembled and packed for shipment. This process typically begins about three days before the planned departure date, but the actual departure depends on weather and sea conditions.

The skipper provided regular weather forecasts, and the day before our planned shutdown, he told us we had one more day to operate, as the tides and sea conditions would be more favorable if we left on the morning of 7 March. An early morning departure would give us better visibility to navigate ice fields.

Our final day was filled with very intense activity, taking down the remaining antennas, equipment and tents, transporting everything to the shore and then transferring it to the *Braveheart*. By that afternoon, much of the equipment was staged on the beach, and we were revitalized with a cup of hot soup.

Three team members assisted the ship's crew with stowing the equipment, while the remainder of the team transferred equipment down the beach and through the waves to the small boat, making multiple trips to the boat, as several team members donned waders and stood in the very cold water as the transfers were made. When everything was properly stowed, we conducted a final check to ensure nothing was left on the island, before the remaining team and crew returned to the ship.

The return to Punta Arenas was uneventful and we arrived sooner than expected. After several hours of formalities with Immigration and Customs officials, and a health inspector, we were permitted to leave the ship and our equipment was transferred to the Customs broker.

## Reflections

Back in Punta Arenas, we became fully aware of the worldwide Covid-19 crisis and several team members who had previously booked return flights between 13-17 March, rebooked their flights for an earlier departure.

With time to relax we looked back

over the past several weeks. Very few people in the world get to walk on the Antarctic continent and even fewer are permitted to camp overnight. The consensus was that VP8PJ had been a successful expedition for the island participants. We hope it was a good experience for those of you chasing us in the pileups. We enjoyed hearing from people who contacted us, be they a mega-station looking for a full house, or a QRP operator needing an ATNO. A consistent theme from many who wrote was they had "fun" working VP8PJ, and we had fun working you.

We set up a Groups.io reflector prior to departure, many of your comments were summarized by the pilots and forwarded to us. Other island activities included collecting marine sediment samples for scientific research and partnering with several schools to supplement STEM education through classroom presentations about the expedition.

One of the most meaningful comments on the reflector was written by John Miller K6MM, President of the Northern California DX Foundation, addressed to Chief Pilot Glenn, KE4KY: "*Kudos to both the on-island team, and to you and the other members of the off-island team. VP8PJ has been one of the most well-run DXpeditions in the last decade.*"

## Wrap Up

We would like to acknowledge the help and support of many groups and individuals who contributed to South

Orkney Islands 2020. We appreciate the major financial sponsorship from the Northern California DX Foundation (NCDXF), the German DX Foundation (GDXF), The American Radio Relay League Colvin Award, Clipperton DX Club and the Far East DX-ploiters for their very generous support, and that of the many other clubs and foundations. Please review the list of Corporate and Club/Foundation sponsors at [sorkney.com](http://sorkney.com), they deserve your support.

Over 1,700 individual donations were processed via the website, including 103 Premier Donors (contributing \$200, or more) and over 1,600 DXers added a contribution to their OQRS confirmation request. The on-island team were supported by many individuals, and in particular we would like to recognize our Chief Pilot Glenn, KE4KY, and his pilot team of: Mason KM4SII, Cesar PY2YP, Bjorn ON9CFG, Alex 4L5A, Andre V51B, Hiro JA1WSX and Luke VK3HJ.

Managing the early donor program was Doris K0BEE, and Tim M0URX who processes your QSL confirmations and uploads your LoTW confirmations.

Among the highlights of the project were giving many DXers an ATNO and/or band fills, putting people on the Honor Roll, logging thousands of FT8 contacts, the first 60-meter operation from Signy Island, and working with a fantastic team of amateur radio operators.

We must also recognize Matt Jolly and his *Braveheart* crew who were as much a part of the project's success as the radio team. 



Waterpipe Beach staging area. Photo: K3EL

# ZK3A — DXpedition to Tokelau

Adrian Ciuperca, KO8SCA

TOKELAU MEANS “NORTH WIND” IN Polynesian and is the textbook definition of an island paradise — turquoise waters, incredible beaches and abundant marine life — and the destination for our international team of 19 operators, led by team leader Hrane Milosevic, YT1AD, and co-leaders Alex Yakovlev, UT5UY, and Roman Tkachenko, URØMC. Using the call-sign ZK3A, we activated Tokelau from 25 September-10 October 2019.

In addition to the aforementioned, our ZK3A team consisted of the following operators: Andy Kotovsky RW7K, Alex Betsan USØKW, Serge Shalya R7KW, Nick Ovcharenko UT8IO, Vangelis Gkekas SV2BFN, Chris Dimitrijevic VK3FY, Lee Moyle VK3GK, Alex Nersesian K6VHF, David Jorgensen WD5COV, Adrian Ciuperca KO8SCA, Robert Fanfant N7QT, Sandro Nitoi VE7NY, Rafael Oliveira Martins PY2NDX, Sergii Khrypko UR9QQ, Sergey Dyachenko RX3APM, and Dusko Dumanovic ZL3WW.

## Planning

Being No. 53 on the Global DXCC Most Wanted List on ClubLog and No. 33 on the Europe DXCC Most Wanted List, Tokelau is a rare DX entity. The archipelago (IOTA: OC-048) consists of three main coral atolls — Atafu,



*Curious Tokelaun school kids visited our camp.*

Nukunonu and Fakaofu — plus many small, uninhabited, islands, located in the South Pacific midway between Hawaii and New Zealand with a population of about 1,500 people. Because of its remote location, Tokelau is not on the usual tourist’s radar, and a visit by a large team of DXpeditioners raises many complications and requires special permits and visas from local authorities. To resolve and negotiate

those details, Hrane, YT1AD, and Dusko, ZL3WW, visited Tokelau to meet with telecom authorities many months before the DXpedition.

Since the Tokelau islands are located about 300 miles north of the nation island of Samoa, the team’s starting point was chosen to be Apia, Samoa’s capital.

There are no airports that service these remote islands, so the team

*View of Fakaofu village from the drone.*





*Post-DXpedition — the ZK3A team back in Samoa.*

hitched a ride on the (semi) regular supply boat to the atolls. The ride from Apia to the team's final destination on Fakaofu Atoll was a little over 24 hours on the open ocean.

While on Samoa, however, the team took care of the remaining logistics before our departure: obtaining visas, packing the equipment for the boat ride and shopping for needed supplies.

We coordinated our operations based on the supply boat's schedule. There wouldn't be enough time to operate if we planned our DXpedition between two of the scheduled boats, so it was decided to send a 3-person team — Dusko, ZL3WW, Adrian, KO8SCA, and Robert, N7QT — to install many of the antennas, thus allowing the main team to start operating immediately upon their arrival.

## Operations & equipment

The ZK3A team was divided into two groups, each operating from a different island, about 2 kilometers apart. Doing so removed the possibility of interference and maximized the number of contacts by allowing both locations to operate in the same band, but on different modes.

The local school was located on one of the islands, so there was a boat that made multiple daily trips to ferry children back and forth, and the team utilized that boat, plus others, to move between the two islands.

Camp 1 on Fale Island had a Mosley TA33M beam for 14/21/28 MHz; a Mosley TW33XL beam for 10/18/24 MHz; a LBS 4-square for 3.5MHz; Comtek 4-square for 7 MHz, and a vertical for 10MHz.

Camp 2 at the Teletok location had a Cushcraft A3S beam for 14/21/28 MHz with YAESU GDX 800 rotator; a Mosley TW33XL beam 10/18/24 MHz; a dipole for 3.5 MHz; vertical for 7 MHz; dipole for 5 MHz; 7 element beam for 50 MHz (EME); vertical and delta loop for 1.8 MHz and receiving antenna for 1.8 MHz, plus a 102-meter-long Beverage antenna (BOG), as there was enough space available.

For radios, we utilized three Elecraft

K3S, three Kenwood TS-590s, one Icom 7300, SunSDR Pro and a Rig One transceiver. For amplifiers, we used three SPE 1.5kW and one SPE X 1.3kW, a Burst 2kW and one homebrew 1kW amplifier.

## Good will

It is important for Amateur Radio DXpedition teams to gain good will and leave a positive footprint on their travels and ZK3A was no different.

The team brought in and donated antennas, radios, generators and everything else that was needed to setup a fully functional station for each of the three Tokelauan atolls. The equipment could be used by Tokelau ham radio



*Hrane, YT1AD, teaches young Tokelauens about Amateur Radio — one of the goals of the ZK3A DXpedition.*



*Adrian, KO8SCA, with locals who helped us assemble the 80M 4-square antenna.*

operators to become more proficient in amateur radio operating and, more importantly, it represents a significant asset during emergency situations.

During the DXpedition, Hrane, YT1AD, and Lee, VK3GK, conducted Amateur Radio training sessions so that young Tokelauans could obtain their radio licenses. These young islanders, many of whom worked for the local telecom company, were familiar with many technical aspects being presented to them and showed a keen interest on learning about Amateur Radio.

During their day off, team members had the opportunity to visit the island's village and participate in the local activities, including fishing for tuna or barracuda.

Being a dependency of New Zealand, English was widely spoken, which allowed our team to easily interact with the locals and learn more about their Polynesian culture.

### **Abrupt departure**

Three days prior to our planned ending, we were notified that the boat we were going to use for our scheduled departure was required for a medical emergency—we had just three hours to pack up and leave the island or wait another two weeks for the next scheduled trip.

This was, of course, unexpected and unfortunate, but we had no alternative. We later learned that the medical emergency was a small infant who required urgent medical attention and that the situation ended well.

### **The tally and some thanks**

The ZK3A DXpedition ended up with almost 53,000 QSOs, of which almost 15,000 were unique calls. The continental distribution of the QSOs is: Asia 38%, NA 37.5%, Europe 19%, Oceania 3.6%, SA 1.6% and Africa 0.4%.

The most QSOs were done in CW (near 30,000) followed by FT8 (approximately 12,000), SSB (near 9,000),

RTTY (about 2,300 by SV2BFN) as well as a few 6M EME QSOS (by URØMC). Many more ZK3A statistics are available on clublog.org.

Thanks to our pilots: Oceania and Chief Pilot and Webmaster, Peter Dernikos, VK3FN; Asia, Champ Muangamphun E21EIC; North America, Steve Hass, N2AJ; South America, Cesar Augusto de C. Rodrigues, PY2YP; Europe, Demetreos Anastasiades, SV2GWY, and Africa, Andre Pretorius, V51B.

We also thank all the Amateurs, clubs, organizations and companies who provided support to the ZK3A DXpedition. A special thanks goes to NCDXF for continuing to support DXpeditions to rare DX entities.

For more details and additional pictures, visit our website [www.tokelau2019.com](http://www.tokelau2019.com).



*Adrian, KO8SCA, after a fun and productive fishing day.*

# NCDXF Director Profile

**NAME & CALL SIGN:** Ned Stearns AA7A

**PAST CALLS:** WB7AEB, WB9LFY, WA8JWY, WN8JWY, AA7A/KH5, TZ6NS, 9L7NS, EL2ES, 5B/AA7A, C6ANS, 6Y5AZ

**CURRENT LOCATION:** Phoenix, AZ

**WHAT ARE YOUR PREVIOUS QTHs?** Ft. Wayne, IN and Shaker Heights, OH

**WHAT WAS YOUR CAREER BEFORE RETIREMENT?** I retired in 2015 after a 43-year career in engineering. I primarily worked on communication systems for the US Government as an RF specialist and as a systems engineer. I also worked for Motorola in the Phoenix area for 28 years before it was sold to General Dynamics, and remained there for an additional 13 years.

**NCDXF LEADERSHIP POSITION:** Vice President/Director

**CURRENT DXCC STATUS:** Top of the Honor Roll Mixed and Phone. Missing only P5 on CW. DXCC Challenge 3000 endorsement. DXCC on 11 bands.

**DXPEDITION EXPERIENCE:** AA7A/VP2A, 3B9R, T32R, AA7A/KH5, K5K (Kingman Reef), VP8STI, VP8SGI, VP8IDX, C6ANS, 6Y5AZ, and KH1/KH7Z. Contest DXpeditions to TZ5A (twice), 3X5A (twice), 9L5A, 9L5VT, EL2A (twice), P3F, 9K2HN and PZ5V (twice)

**WHAT WOULD YOU TELL SOMEONE WHO IS THINKING ABOUT CONTRIBUTING TO NCDXF?** Simply remember the joy you experienced in working a new one that was supported by an NCDXF grant. Help to keep this Foundation going so that we, as well as newcomers to DXing, can all continue to have those special ATNO moments in this incredible hobby.

**AS AN AVID DXER WHAT TRENDS DO YOU SEE?** It is getting harder to get permission from local governments or HOAs to erect good antennas for DXing. Getting new Amateurs into DXing or existing DXers staying in the game when moving into new homes will be greatly impacted by antenna restrictions. The solution for some will be the use of remote operating, using stations with good antennas. There is much debate about the effects that remote operation may have on some competitive aspects of DXing or contesting, but there simply needs to be a way to continue to participate in DXing activities when using remote stations. I have personally been involved in the development of two remote radio sites using antennas that could not be installed in urban areas. Working through the issues of land leases, remote site construction, remote site management and wireless Internet might be a new set of topics of discussion in planning and building your next Amateur Radio station. These endeavors normally exceed the skill set of one individual and it will more than likely require a professional service to be provided (several remote

radio services are currently available and many more are on the way) or a collective of Amateurs with diverse talents who work together to tackle all the challenges. This will more than likely become the new way to go for many in the DXing game.



**ANY TIPS FOR DXERS?** DXpeditions to really rare DX will likely be on hold for a while until it is safe to travel... especially when confined to small spaces on boats going into Antarctic waters. Keep interest in the sport until then by trying new things, like chasing DXCC entities on 60 Meters or chasing grids or DX on 6 Meters.

**DESCRIBE YOUR SHACK AND ANTENNA SYSTEM:** My home shack is a K3/P3/KPA1500 with several K3/0 stations to access remote sites. I use a Mosely PRO67C3 at 70 feet for HF and 3 element vertical array for 80.  
• My HF remote site is located in Safford, AZ, roughly 200 miles SSE of my home QTH. My primary partner in the development of this site is Lee Finkel, KY7M, with whom I have travelled to the site over 50 times. The site supports two K3 stations that make KW power and permits M/2 contesting or multi-band DXing for the Top Band Club of Arizona group that uses this station. The LF antenna systems at this site are the product of long-time 160 DXer Milt Jensen, N5IA (sk). The 160 Meter 8-circle, 80 Meter 4-square and 16-direction Beverage farm are world-class antennas. The TBCA group now maintains these legacy antennas and is adding more HF antennas to make this a competitive contest site and a DXers dream for all bands.  
• My VHF remote site is located in Maricopa, AZ, roughly 50 miles S of my home QTH. I designed the site and worked closely with the site owner Larry Loen, WO7R, to erect a monstrous 6 Meter antenna at 70 feet and a 8-Yagi EME array for 2 Meters. This site can be operated remotely which is a rare capability for an EME station.

**MARRIED?** Yes, My wife, Jan, tolerates my ham radio passion. **KIDS?** Yes, two girls, Kim and Carrie. **GRAND-KIDS?** Yes, one boy and one girl.

**ANY OTHER HOBBIES BESIDES HAM RADIO?** Well, yes. My new hobby is driving to and from remote sites. I also write articles for magazines and give speeches, but mostly I tinker in my well-appointed shop making cool things.

# NCDXF VP Ned Stearns, AA7A, inducted to CQ DX Hall of Fame

ON 20 MAY 2020, *CQ* MAGAZINE announced the induction of Ned Stearns, AA7A, into the *CQ* DX Hall of Fame, which honors those DXers who not only excel in personal performance but who also “give back” to the hobby in outstanding ways.

*CQ* DX editor Bob Schenck, N2OO, made a virtual presentation on the Ham Nation podcast on 20 May 2020, as both

Ned and Tony Gonzalez, EA5RM, were both inducted into the DX Hall of Fame. (<https://twit.tv/shows/ham-nation/episodes/454?autostart=false>)

Ned is an accomplished DXer, DX-peditionier, and technical innovator. He introduced the use of switchable vertical dipole array antennas on island DXpeditions and designed “dual-band discone” antennas for use with

NCDXF’s worldwide beacon network. Ned also worked with 2019 DX Hall of Fame inductee Joe Taylor, K1JT, on developing the “Fox/Hound” mode for FT8 used by DXpeditions. On the air, he is at the Top of the Honor Roll for DXCC Phone and Mixed, was the first recipient of 11-band DXCC and has worked over 160 countries via EME (Earth-Moon-Earth). 



## 50 Years Ago A Blast From the Past

**West Coast DX Bulletin  
published every week by the Marin County DX Group  
July 21, 1970**

*“One of our local QRPers has turned into a demon DXer... the only trouble is that the beam is swinging so fast that the rotator overheats. Hardly slowed the QRPer down at all. Ran the garden hose up the tower and now has a water-cooled rotator to go with the water-cooled tubes in the final. Son of a Gun... got a 65-foot fountain as a side product. How about that? \$7.00 for a full, cool year of DX drips.”*

# Cycle 25 Fund & Cycle 25 Society



TO HELP SUPPLEMENT NCDXF's mission to provide necessary financial support for well-organized DXpeditions to rare and financially demanding DXCC entities, NCDXF established the Cycle 25 Fund in 2016. The goal of the Cycle 25 Fund is to double NCDXF's endowment through significant estate gifts from current DXers, which will allow NCDXF to continue its mission throughout sunspot Cycle 25 and beyond.

NCDXF Director, Craig Thomp-

son, K9CT, who oversees the Cycle 25 Fund, has established a Cycle 25 Society for those who participate. Thompson said, "The Cycle 25

Society is for honoring those special individuals who commit to estate giving before the next sunspot maximum. When you let us know your plans, we will honor you on our website and send you a special Cycle 25 Society pin as

a memento of your thoughtfulness."

Craig invites DXers interested in the Cycle 25 Society to visit the NCDXF website

[www.ncdxf.org/pages/estate.html](http://www.ncdxf.org/pages/estate.html) for more information. You can also contact Craig to

*Since the announcement of the Fund, the following individuals have made estate-planning commitments:*

- |                           |                         |
|---------------------------|-------------------------|
| Tom Berson, ND2T          | Alan Rovner, K7AR       |
| Al Burnham, K6RIM         | Bob Schmieder, KK6EK    |
| Bruce Butler, W6OSP (sk)  | Rich Seifert, KE1B      |
| Rusty Epps, W6OAT         | Charles Spetnagel, W6KK |
| John Grimm, KØYQ          | Ned Stearns, AA7A       |
| Rich Haendel, W3ACO       | Randy Stegemeyer, W7HR  |
| Glenn Johnson, WØGJ       | Craig Thompson, K9CT    |
| Hardy Landskov, N7RT (sk) | Dan White, W5DNT        |
| Ed Muns, WØYK             |                         |

## DXPEDITION LENDING LIBRARY

NCDXF has a number of VHS/DVD videos and Microsoft® Power Point presentations on CD-ROM available for loan to organizations wishing to show them at their meetings. There is no charge to use the programs in the FOUNDATION'S library, but clubs borrowing materials are responsible for postage in both directions. To view the complete listing of programs available for your club's use, visit our website, [www.ncdxf.org](http://www.ncdxf.org), and click on "Videos."

discuss Cycle 25 Fund funding options, including specific bequests, designation of IRA beneficiaries and purchase of an annuity or life insurance.

## Show your support for NCDXF

NCDXF offers several ways for you to show your love for DXing! Impress your friends with a gold lapel pin (\$7), show up at your next hamfest sporting the NCDXF hat (\$12) or don a NCDXF T-shirt (\$15) to set up your Yagi on Field Day. Send out your QSLs with an NCDXF label (roll of 500, \$7). Mail in the attached form or visit [www.ncdxf.org](http://www.ncdxf.org) to order today.



## Contribution & Order Form

**YES! I want to contribute to NCDXF!**

Contribution ..... \$ \_\_\_\_\_  
 YES! I want to show my support for NCDXF. Send me the following supplies (shipping included):

- \_\_\_\_\_ T-Shirt(s) @ \$15 each ..... \$ \_\_\_\_\_
- (indicate size M / L / XL / 2XL / 3XL)
- \_\_\_\_\_ Hats @ \$12 each ..... \$ \_\_\_\_\_
- \_\_\_\_\_ Lapel pin @ \$7 each ..... \$ \_\_\_\_\_
- \_\_\_\_\_ Roll(s) of labels @ \$7 each ..... \$ \_\_\_\_\_
- Total contribution & supplies ..... \$ \_\_\_\_\_

Call sign \_\_\_\_\_ Name \_\_\_\_\_

Mailing Address \_\_\_\_\_

Email \_\_\_\_\_

Check enclosed or Charge to Visa / MC / AmEx

Card number \_\_\_\_\_ Exp. \_\_\_\_\_

Signature \_\_\_\_\_

Mail to NCDXF, PO Box 2012  
 Cupertino, CA 95015-2012