



Northern California DX Foundation

www.ncdxf.org

Spring/Summer 2011

2011 MICROLITE PENGUIN DXPEDITION VP8ORK, South Orkney Islands

Tom Berson, ND2T

BY INTERNATIONAL TREATY, Antarctica is comprised of all lands and ice shelves south of 60 degrees. On any sphere, a spherical cap south of 60 degrees covers 7% of the surface. On Earth, much of the surface south of 60° is covered by ocean. So while we can take 7% as an upper-bound for the size of Antarctica, the actual size is somewhat smaller.

Antarctica has no (zero, nada, nil) permanent residents; however, about 1,000 scientists and their support staff spend the winter there in various national research stations, and during the summer, the number grows to about 5,000. Even in summer, Antarctica is a sparsely-populated wilderness. Then there are the tourists; during the 2009-2010 summer

approximately 37,000 tourists flowed into and through Antarctica — a flow that strains facilities and stresses the environment.

There are four DXCC entities in Antarctica: Antarctica (the Antarctic continent), Peter I Island, South Shetland Islands and South Orkney Islands. For the foreseeable future, that is all there will be. The ARRL DXCC List Criteria, in Section 3b,



takes note of the Antarctic Treaty and reads, “In view of these Treaty provisions, no new entities below 60 degrees south will be added to the DXCC List as long as the Treaty remains in force.”

Our story

This is the story of VP8ORK, a
continued on page 3



The VP8ORK operator team: (from left) VE3EJ, ND2T, 9VIYC, N6MZ, WB9Z, KØIR, K6AW, N1DG, N4GRN, W7EW, K9ZO, W3WL and EY8MM.

INSIDE THIS ISSUE

VP8ORK	1
President's message.....	2
2010 Heavy Hitters	3
Estate planning	8
NCDXF lending library	8
NCDXF products	8

NORTHERN CALIFORNIA DX FOUNDATION

P.O. Box 2012
CUPERTINO, CA 95015-2012
USA

Phone 707/794-9801 • Fax 707/794-8033

www.ncdxf.org

President.....BRUCE BUTLER, W6OSP
w6osp@aol.com

Vice President .. GLENN JOHNSON, WØGJ
vjohnson@paulbunyan.net

Secretary TOM MCSHANE, NW6P
tom@bimark.com

Treasurer KIP EDWARDS, W6SZN
kedwards@toll.com

Directors..... KEN ANDERSON, K6TA
k6ta@arrl.net

STEVE MERCHANT, K6AW
smerchan@sonic.net

JOHN MILLER, K6MM
webaron@gmail.com

CHUCK TERNES, N6OJ
n6oj@sbcglobal.net

TIM TOTTEN, N4GN
n4gn@n4gn.com

M. GLENN VINSON, W6OTC
w6otc@garlic.com

Advisors LEN GERALDI, K6ANP
k6anp@pacbell.net

AL BURNHAM, K6RIM
k6rim@pacbell.net

PETER JENNINGS AB6WM/VE3SUN,
BEACON SUPPORT

STEVE LUND, K6UM,
BEACON SUPPORT

CHARLIE MASON, W4NJK,
BEACON SUPPORT

DICK WILSON, K6LRN, VHS/DVD
SUPPORT, *k6lrn@arrl.net*

ROSS FORBES, K6GFJ
k6gfj@comcast.net

Managing Editor DEBI SHANK
itsdebi@sbcglobal.net

Webmaster..... JOHN MILLER, K6MM,
webaron@gmail.com

Member Services..... DOUG BENDER, WW6D,
newsletter@ncdxf.org



From the President's Desk

THIS EDITION OF THE NEWSLETTER WAS PURPOSELY delayed so that our good friend Tom Berson, ND2T, could prepare an article on the massive undertaking to activate South Orkneys. VP8ORK was a great expedition that encountered many issues along the way and we hope you will enjoy reading the VP8ORK saga.

This newsletter also includes our listing of “heavy hitters” for 2010. These are the foundations, clubs and individuals who contributed much of NCDXF’s revenue in 2010. Happily, this list is longer by eight compared to 2009. We hope this increased level of contributions recognizes the job that the Board has done in handling the DXpedition requests and grants. Nonetheless, our continuing ability to fund DXpeditions depends on our individual contributors, regardless of the size of each contribution. We cannot continue doing what we do without contributions, new and renewal, from all of you who have worked the sponsored DXpeditions.

The NCDXF Board met at the Visalia International DX Convention on April 16, 2011, and accepted the resignation of our director Dave Pugatch, KI6WF, for personal reasons. Dave was our “behind-the-scenes” guy who kept track of funded expeditions, including QSL cards received and newsletter articles. Dave did this for over 20 years, and did a superb job. We thank Dave for his efforts on behalf of NCDXF.

I also want to recognize the passing of a huge NCDXF supporter, Wayne Gingrich, W6EUF. Wayne was always there for NCDXF. His granddaughter wrote a very nice article in the April CQ on his passing.

I also missed an overdue recognition for a contribution from a club. The Central Arizona DX Association sent us a \$1,500 check in January of 2010 in recognition and memory of Bruce Makas, K1MY. Please accept my apologies for missing this in the Spring/Summer 2010 newsletter.

Getting back to Visalia, I must recognize the superb job that John Miller, K6MM (our director and Webmaster) and Kevin Rowett, K6TD, did in organizing and putting on this convention. There were so many vendors that they were on the mezzanine for the first time. I am sure the final count was over 550 registered — great programs and great camaraderie and Visalia weather in the low 70s. Make sure to attend in 2012.

Please check out our website from time to time for new sponsored DXpeditions and other activities. Also, follow us on Facebook and Twitter. Our director Tim Totten, N4GN, has moved us along well in the various forms of social media.

Elsewhere in this issue, our director Kip Edwards, W6SZN, has some brief information regarding estate planning. A number of Hams have designated NCDXF in their wills and IRAs as a beneficiary. This can be an excellent way to help maintain NCDXF in perpetuity.

Finally, after July 1, there will be an excellent ZL8X Kermadec Islands DXpedition DVD available through Dick Wilson, K6LRN, who maintains the NCDXF lending library. The lending library information is available on our website. Other than the cost of postage, it’s free.

Until next time!!!



— 73, Bruce Butler, W6OSP





M/V Braveheart at anchor at Signy Island with Coronation Island in the background.

DXpedition to one of those Antarctic entities, the 2011 Microlite Penguins expedition to the South Orkney Islands.

The Microlite Penguins, under the leadership of James Brooks, 9V1YC, are an informal band of DXpeditioners formed in 2001 who value operator skill over equipment. Previous Microlite Penguin DXpeditions were VP8THU (2002), VP8GEO (2002), FT5XO (2005), and ZL8R (2006).

The South Orkney Islands are about 920 miles (1,480 km) ESE of Ushuaia, Argentina, touted as the southernmost city on Earth. The largest islands in the group are Coronation, Laurie, Powell and Signy. The Argentine Navy has maintained a permanent base on Laurie Island since 1904 and the British Antarctic Survey has operated a research base on Signy Island since 1947. Under the Antarctic Treaty, the islands' sovereignty is neither recognized nor disputed by any treaty signatories. They are open to any signatory for non-military use, a DXpedition, for example. Previous Amateur Radio activations of the entity include LU1ZA and VP8AP. Prior to VP8ORK, VP8/O was No. 11 most-wanted worldwide per the 2010 *DX Magazine* survey and prior to our arrival, the entity had never — to our knowledge — been activated in any digital mode.

The short story of VP8ORK is that we operated from Signy Island (AN-008) — at 60°42'30"S 45°35'41"W

— which is in grid square GC79eh and CQ Zone 13. We were QRV on 27 January 2011 and QRT on 8 February 2011. The final QSO count, by band and mode, is given in Table 1. Online log check is available via the DXpedition's website, www.vp8ork.com. QSL via OQRS (preferred) or direct to VE3XN.

The finer details

For a simple consumer of DX, and there are many such Hams, the story of VP8ORK ends there. A consumer's attitude is: worked it, got the QSL, moved on. But readers of the *NCDXF Newsletter* also participate in the production of DX, and for producers, the story of any DXpedition is more

Heavy Hitters 2010

We sincerely thank these supporters of the Northern California DX Foundation for their generous contributions during the calendar year 2010.



\$2,000-plus — Northern California DX Club, Northern Illinois DX Association



\$1,000 to \$2,000 — K2PLF, Martin Green Jr.; Central Arizona DX Assn. (K7UGA); NW6P, Tom McShane; San Diego DX Club; W6SZN, G. Kip Edwards; Southeastern DX Contesting Org.; W6ZH, Herbert Hoover, III; Southern California DX Club; W4DXCC



\$500 to \$1,000 — AG6Q, Ralph Hunt; Redwood Empire DX Association; JA1EM, Yoshi Akimoto; K6RIM, Al Burnham; KU9C, Steve Wheatley; N7ZA, Bruce Wade; W1PNR, William Beal, Jr.; W5DNT, Dan White; W6JZH, John Galli; W8QID, Kirk Swalloe



\$250 to \$500 — K6ANP, L.R. Gerald; Albuquerque DX Assn. (W5UR); K6GFJ, Ross Forbes; Mother Lode DX Contest Club; K6LRN, Dick Wilson; Twin City DX Assn. (WØTDX); K6TA, Ken Anderson; K6UM, Steve Lund; K7BV, Dennis Motschenbacher; K7HC, Clay Brown; K8NW, David Wren; K9ZO, Ralph Bellas; KA8Q, Dr. Jerry Redding; KC8BIF, Daniel Seright; N4JJ, Marion Jackson, Jr.; N7NG, Wayne Mills; NE1RD, B. Scott Andersen; NN6L, Dennis Dreier; NN6W, Gary Field; NU6T, Rich Hill; PT7CB, Francisco Barreto Frota; WØGJ, Glenn Johnson; W3UR, Bernie McClenny (The Daily-DX); W4PK, Sam Leslie; W5ZE, John Uhl; W5ZPA, Michael Mayer; W6OSP, Bruce Butler; W6RS, Richard Stempien; W7KFI, Susan Meckley; WB9Z, Jerry Rosalius



Team leader James Brooks, 9V1YC, delivering feedline in a snow storm.

complicated, more interesting and more nuanced.

To begin, you need permits, a license, transportation and a team of operators. Once you have those things you can look for funding.

The Antarctic is a special place in terms of permits. Each signatory to the treaty is responsible for its nationals' activities anywhere in the Antarctic. Since our operating team would be mostly from the United States, this meant dealing with U.S. Government agencies. During 2009 we filed our Advanced Notification Paper with the U.S. Department of State and our Initial Environment Evaluation with the U.S. Environmental Protection Agency, and we applied for our Waste Management Permit to the U.S. National Science Foundation. We sent a representative to Stanley, Falkland Islands, to obtain the VP8ORK radio license. We also consulted with the British Antarctic Survey about conditions on Signy, our intended destination.

Travel to and in the Antarctic can be dangerous because of the treacherous seas and harsh climate there. For transportation, food, camp infrastructure and support ashore, we chartered the New Zealand flagged M/V *Braveheart*. The *Braveheart*, its owner

Nigel Jolly and its master, Matthew Jolly, offer a proven, reliable and safe DXpedition platform. *Braveheart* has supported 10 DXpeditions, five to Antarctic or sub-Antarctic entities. *Braveheart's* experienced, strong and flexible crew knows the difference between a beverage and a Beverage, and are equally at home providing either.

VP8ORK fielded a team of 13 operators who, in aggregate, brought 540 years of operating experience; had operated from 50 entities; had operated from other environmentally-sensitive locations including Antarctic

was to apply for funding. VP8ORK would not have been possible without the strong support of the Northern California DX Foundation. The DXpedition and the DX community at large owe the largest possible thanks to NCDXF for its significant sponsorship of VP8ORK. Antarctic DXpeditions by ship are so expensive that fundraising becomes a go/no-go issue. NCDXF's early decision to strongly support VP8ORK encouraged other sponsors to join in and allowed the DXpedition to continue its planning.



An early landing on Signy. Four members of the Braveheart crew are in the foreground. EY8MM is playing mountain goat. Materials are being transferred ashore.

entities; had run and won major contests, including WRTC; were experts in high bands and low, and were each known beforehand by at least one other member of the team. Operators came from Canada, Singapore, Tajikistan and the United States. They were Ralph Bellas, K9ZO; Tom Berson, ND2T; James Brooks, 9V1YC; Ralph Fedor, KØIR; Don Greenbaum, N1DG; Wes Lamboley, W3WL; Steve Merchant, K6AW; Mike Mraz, N6MZ; George Nicholson, N4GRN; Jerry Rosalius, WB9Z; Lew Sayre, W7EW; John Sluymer, VE3EJ, and Nodir Tursoon-Zadeh, EY8MM.

With permits, license, a team and transportation in place, our next step

Equipment and logistics

We selected equipment that was reliable, rugged enough for the expected nasty weather, great performing and fun to operate. We applied to the manufacturers for sponsorship, which they were generous in offering. Radios came from Elecraft, amplifiers from Acom International, vertical antennas from DX Engineering, StepIR, Spiderbeam and the Battle Creek Group. Rig interfaces came from RigExpert. Writelog for Windows was our logging program. Everything was acquired, built, pre-assembled, checked out and shipped to our logistics base near Atlanta. There, team members and local Amateurs

loaded a container for the 6,200-mile (9,900 km) road and ocean voyage to Ushuaia.

At this point three months pass. Patience is a difficult but important skill for a DXpeditioner. Some team members increased their workouts so that they would be in the best physical shape of their lives when they hit the beach in Signy. It became increasingly hard to pay attention to work and daily routines because visions of icebergs, seals and penguins were dancing in our heads.

En route

At last we made our rendezvous in steamy Buenos Aires where we toured the sights, enjoyed an evening of hospitality from an enthusiastic and friendly group of LU DXers, and sampled the famous Argentine barbecue. After two nights in BA, an internal flight brought us south to rainy, chilly Ushuaia and our first of 30 nights aboard *Braveheart*.

The Beagle Channel and the Drake Passage, the latter of which has earned a dangerous reputation, separate Ushuaia and Signy Island. The entire Southern Ocean of winds, weather systems and currents flow into the Drake Passage between the southern tip of South America and the



Overview of the VP8ORK camp site. The operating tent is on the left, with seven complete stations; the shelter on the right is the MEG (Meet, Eat, Greet) tent, containing cots, sleeping bags, emergency rations and the all-important tea kettle.

northern tip of the Antarctic Peninsula. We crossed it, twice.

Signy is a rocky island of rugged and fearsome natural beauty. It is partly covered by glaciers; the flora consists of mosses and lichens, and icebergs bob in its waters. It has a huge and growing population of Antarctic fur seals (about 20,000 in 2009), elephant seals and Weddell

seals, and an uncountable number of penguins, mostly chinstrap. The temperature while we were there averaged 0°C; it was the Antarctic summer. The weather varied from calm, fierce wind, clear, fog, dry, rain or snow. And it was most of these every day.



The CW/RTTY side of the operating tent during a typical shift. It might be cold and stormy outside, but inside we were snug, warm and happy. From left, W7EW, ND2T, KØIR.

Contributions

The **NORTHERN CALIFORNIA DX FOUNDATION** relies heavily upon the generosity of its members to fund various projects. We urge each member 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! The **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: **NORTHERN CALIFORNIA DX FOUNDATION**, P.O. Box 2012, Cupertino, CA 95015-2012, USA. You may also contribute and order supplies online via our secure server, visit www.ncdxf.org/donate.

A TYPICAL SCENE AROUND CAMP.

Rocks, moss, seals, antennas (this is the 80M fiberglass pole), the sea and, in the distance, an iceberg.



Setting up

Conditions at Signy were not ideal. The small boat landing was difficult and the beach from where we had intended to operate was unsuitable for a safe camp, forcing us to pick an alternative site more inland and on a steep, rocky and slippery hill. We spent several long days as a team of the whole – 13 operators and seven *Braveheart* crew – constructing shelters, installing generators and power lines, erecting antennas, laying out feedlines and building stations. And at last we were ready to QRV.

The bands were quiet. The nearest plasma television was 900 miles away so there was no QRM. We are among the few who have heard down to the noise floor of the K3 under field conditions. All it took to put an end to this tranquility was a single call on our advertised calling frequency. The pileups began.

On the air

And, with that, the DXpedition shifted out of construction mode and into production mode. Our pre-departure plan was to operate three- or four- hour shifts at preferred times, in preferred modes, and on preferred bands. This was impractical and went

out the porthole. Two factors made it impractical: First, operators slept and ate aboard *Braveheart* (Note: we were prepared to eat and sleep on Signy temporarily if a weather emergency forced *Braveheart* away.), and second, small boat landings could be safely made only in daylight, from roughly 0330-2030 local time. So, we divided ourselves into two teams of operators and partitioned the clock day into three 8-hour shifts, 04-12, 12-20 and 20-04. Each team had eight hours on and eight hours off. This allowed us to keep the operating tent fully-staffed at times and to operate on any band that was open. It also allowed us to get loopily exhausted, totally disoriented about time, day and date, and QSO-drunk on sustained rate.

Despite these difficult conditions, nothing broke, no one was injured and no voices were raised in anger or frustration. There were lots of jokes and no hard looks. I put this down to leadership, experience, tolerance and teamwork. Don't leave home without them.

But the pileups were often trying; our term for them was "dirty." We know our signals were sometimes weak, but we were nevertheless able

to maintain good pileup rhythm and control. Weak signals occurred in both directions. The K3s and the generally quiet conditions (except on 160M, which had a lot of QRN) allowed us to run rate even of S1 callers, and earned us the reputation of having good ears.

The overwhelming majority of QSOs were a great pleasure for me, even those toward the end of yet another eight-hour shift, knowing that each QSO results in a happy Ham at the other end. We are justifiably proud of the 1,906 CW Qs we made on 160M; the most ever made by an Antarctic DXpedition. But the QSOs on 160M were the most expensive QSOs we made in terms of low rate, high weight and high manpower inputs.

In theory, three people can erect the Battle Creek Special; in practice, and in the high variable winds of Signy, we needed the whole team to erect the antenna. Then we had to bring it down and re-erect it the next day in order to replace the top loading wire, which had parted during the first night's operation. The BCS radials were disturbed and broken by the daily seal traffic. Eventually, we added additional radials and weighted

them down with rocks. Additional manpower was put into building and maintaining the Beverage antenna. The Top Band community needs to recognize that conducting a Top Band operation from a rare and physically difficult entity is a labor of love (aka an irrational act) and makes little economic sense.

Dollars and cents

Here's a bit more about the economics. We knew VP8ORK would be an expensive DXpedition and budgeted accordingly. Foreseeable factors driving expenses were travel, port fees and the environment and we had planned to spend \$300,000. Travel to the Antarctic is dangerous so we hired an experienced vessel and crew. CE8 and LU/X are monopoly gateways to the Antarctic, so port fees there are unreasonably high. The physical environment in the South Orkneys is hostile so we provisioned wind- and waterproof shelters, rugged antennas, reliable feedlines and reliable power. As it turned out, we spent more than \$350,000. Important factors in this overrun were higher port fees than we were quoted; an increase in the price of fuel in the eight months between budgeting and buying, and weakness of the US dollar against the NZ dollar, from where the boat was chartered.

On the income side, the North American contribution to VP8ORK was overwhelming. Only 34% of QSOs were with NA, while more than 80% of donations came from NA Amateurs and clubs. This is a stark illustration of a structural problem with DXpeditioning. Important concentrations, whole geographies, of Hams are avid consumers of DX but are unwilling to contribute proportionally to its production. There are also changes afoot in the world of individual sponsorship, which reduce the QSL money a DXpedition can expect. An unintended consequence of the success of Logbook of The World is that many Hams now use LoTW for

their confirmation rather than direct QSL or OQRS.

Many thanks

There are roughly 17,000 unique callsigns in the VP8ORK log. We received individual contributions from roughly 2,700 Amateurs and we appreciate every one of them. Substantial individual and club contributors are acknowledged on our QSL card. A wonderful thing about Amateur Radio is that it builds community, often in the form of clubs. We thank the following foundations and clubs, and their

Band/Mode	SSB	CW	RTTY	TOTAL
160	0	1,906	0	1,906
80	1,292	3,444	0	4,736
40	3,540	7,783	326	11,649
30	0	8,401	1,369	9,770
20	5,652	8,223	1,326	15,201
17	3,397	5,061	578	9,036
15	2,604	4,216	1,021	7,841
12	510	1,923	0	2,433
10	112	1,151	0	1,263
TOTAL	17,107	42,108	4,620	63,835

Table 1. VP8ORK QSO count by band and mode.

members for their substantial support: Northern California DX Foundation, ARRL Colvin Award Grants Committee, International DX Association, German DX Foundation, Top Band DX Club, Chiltern DX Club, Southwest Ohio DX Association, Twin City DX Association, Southeastern DX Club, Lone Star DX Association, Radio Society of Great Britain, Clipper-ton DX Club, Tokyo 610 DX Group, Magnolia DX Association, Danish DX Group, LA DX Group, EUDXF, GM DX Group, Swiss DX Foundation, Blackstone Valley Amateur Radio Club, and the PJ7E DXpedition.

The future

Antarctica (and the sub-Antarctic) is a mostly-pristine wilderness under pressure from the outside world. A properly-planned DXpedition can have a light or zero footprint and we worked hard to leave the door open

for future Antarctic DXpeditions. Representatives of the British Antarctic Survey visited our campsite several times during our operation and they inspected it after our departure. The commander of the BAS Signy Research Station reported that we left things as they were before we arrived.

The flow of 37,000 tourists per year into the wilderness inevitably makes a heavier impact. The wilderness has advocates, who are reasonably concerned about its preservation and conservation. These advocates push for restrictions on access or use which will inevitably impact future DXpeditions. For example, there is a movement to conserve artifacts from the obsolete whaling and sealing industries. The 2002 VP8GEO operation was mounted from an old whaling station at Husvik in South Georgia. We understand that current regulations there prohibit approaching within 200 meters of that whaling station, even in the case of life-threatening emergency. Heavy cruise ship traffic through poorly charted waters leads to occasional groundings with more-or-less

dramatic rescues and scuttlebutt in Ushuaia harbor upon our return was that future regulations may require that non-government ships operating in Antarctic waters need to travel in pairs for mutual aid. Can you imagine organizing and financing a DXpedition with two *Bravehearts*?

An old Steeleye Span song has the refrain, "A safe return's the best part of the journey." For me, the best parts of the VP8ORK journey were the journey itself, the companionship of my shipmates, the remarkable sites of the South Orkney Islands and the QSOs with DXers from all corners of the globe. And a safe return. 

Tom Berson, ND2T, is a mathematician from Palo Alto, CA, and past president of the Northern California Contest Club. His previous DXpeditions were BS7H and K4M (Midway Island).

Estate planning and NCDXF

Kip Edwards, W6SZN

NONE OF US LOOKS FORWARD TO BECOMING A SILENT KEY, BUT WE ALL owe it to our spouse, family and friends to plan for that inevitable event. Each of us has different goals and plans, but making sure that one's spouse, children and grandchildren are provided for is, for many, our first priority. Many of us also wish to leave a lasting legacy by making bequests to charitable organizations, such as colleges and universities and other charities that seek to help in specific areas and that mean something to you. We hope that NCDXF is among those organizations that you may consider in establishing your estate plan.

NCDXF cannot provide legal or tax advice, but we can offer suggestions to those who may wish to provide for a bequest to NCDXF in your estate plan. The designation of NCDXF as one of the beneficiaries of your IRA or 401(k) plan is straightforward. Leaving a bequest to NCDXF under your will or other testamentary instrument is best done by consulting with your estate planning lawyer.

The NCDXF Board has decided that it will publish in the NCDXF Newsletter a list of those who have made the arrangements for a gift or other contribution to NCDXF in their estate plans, provided, of course, that we have your consent to do so. Estate gifts may be designated by you for NCDXF's general fund to support DXpeditions or for a specific purpose such as scholarships, the Beacon Project, and so forth. If you are interested in learning more about this, please contact me (*phone 530/546-5892, e-mail kedwards@toll.com*). Your communications will be held in confidence and not discussed with the Board without your consent.

DXPEDITION LENDING LIBRARY

The **NORTHERN CALIFORNIA DX FOUNDATION** has a number of VHS/DVD videos and Microsoft® PowerPoint 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, please visit our website, www.ncdxf.org, and click on "Videos."

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 to order today.



Contribution & Order Form

YES! I want to join NCDXF or renew my membership.

New member / Renewal

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\$ _____

Callsign _____

Name _____

E-mail _____

Check enclosed or Charge to Visa / MC / AmEx

Card number _____

Expiration _____

Signature _____

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