



Newsletter

Summer 1993

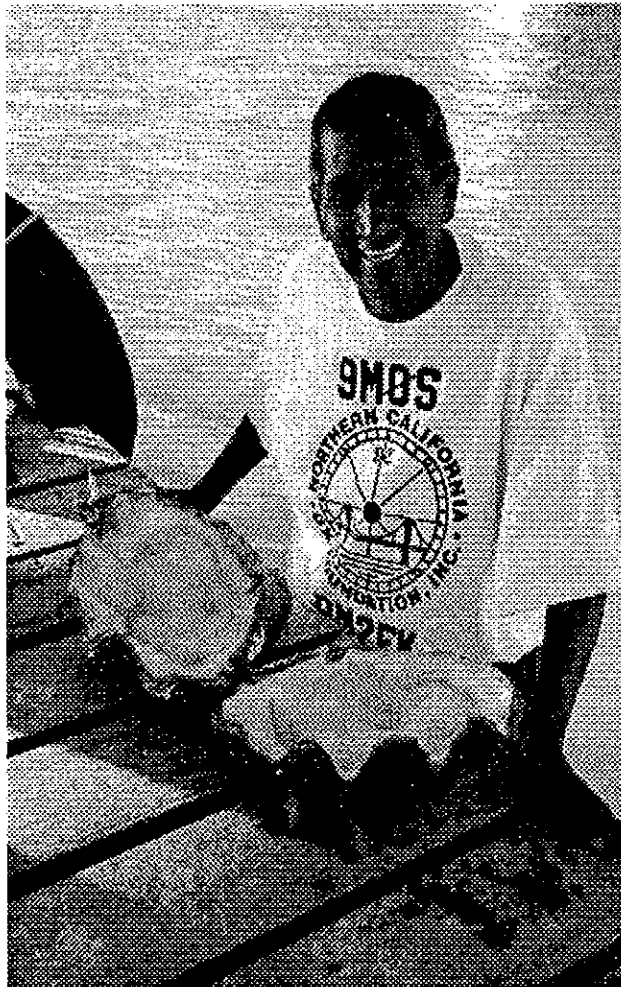
Steve Thomas, N6ST, Editor

Northern California DX Foundation

1993 Spratly Island DXpedition Report-9MØS

by Martti Laine, OH2BH

Due to last minute changes proposed by the Malaysian authorities, the expedition party had to withdraw from its vessel contract and instead charter a 16 seat airplane for the trip. Wow... flying high to Spratly Islands!



Eshee, 9M2FK, with treasures from the reef at Spratly

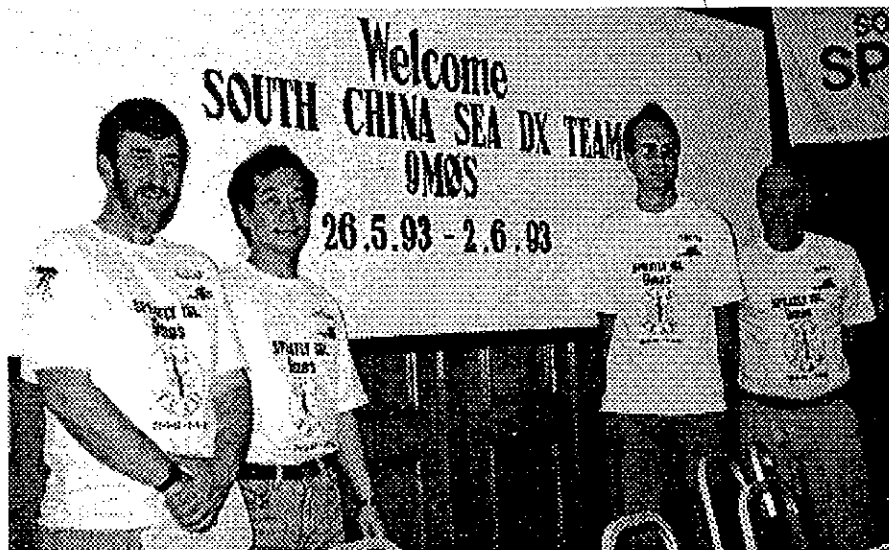
the Yaesu FT-1000 radios were challenged to tolerate each other with only 100 kHz separation for those critical East Coast openings. During the short openings 14195 and 14295 kHz both provided East Coast contacts simultaneously. We are proud to present more than 3,000 East Coast QSOs.

A total tally for six days of operating is 37,000 QSOs of which more than 10k were on WARC bands. Three Cushcraft beams were used while the potent low band signals were

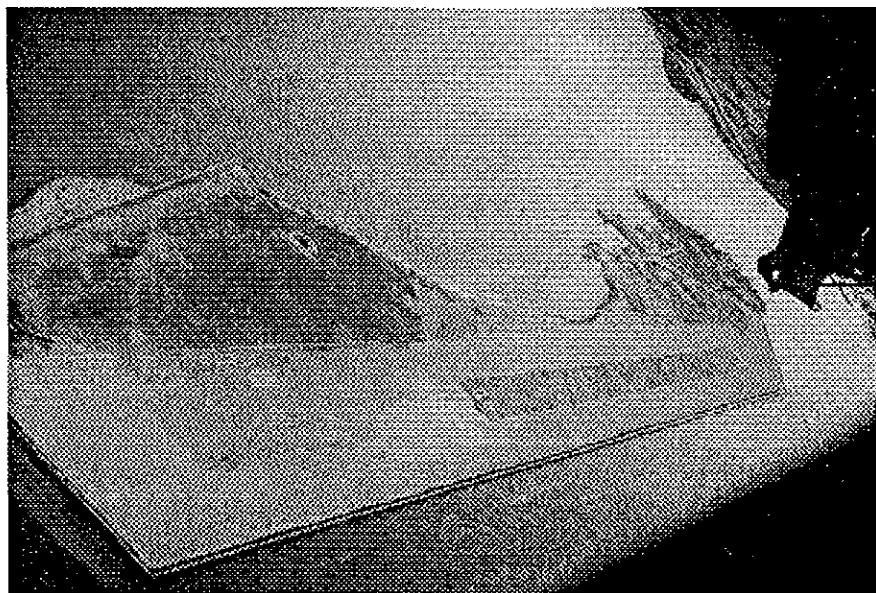
Swallow Reef (Layang-Layang) is 2,000 feet by 400 feet and has 1,500 foot airstrip supporting the Malaysian occupation of the reef. With an extensive Malaysian Navy presence at one of the reef, ideal premises for 9MØS were available at the other end. The Prime Minister of Malaysia had built a private guest house with air-conditioned facilities easily matches those at any Holiday Inn.

Because of the Navy presence and other restrictions, all ETO amplifiers were left at the port of takeoff and the total weight allowance was limited to 800 pounds of gear. That last-minute prioritizing of all the valuable gear was probably the most difficult moment for the expedition. It was called the DX moment!

Compensating for the lack of power, with a full understanding of the challenge provided by the U.S. East Coast, the team quickly drafted their antenna layout accordingly. The Cushcraft A3S beams were nulled, side-by-side only one wavelength apart, toward the East Coast while



Pre-expedition news conference at Kota Kinabalu, Saba (9M6). Left to right: WA6AUE, JA5DQH, AB6NJ (OH6DO) and N7NG.



Spratly (Layang-Layang) from the air. At the far end is a military base.

the result dedicated efforts by Aki-san, JA5DQH.

Even though the facilities on the reef were first class, the team had to experience their share of adventure in several ways. AB6NJ (OH6DO), and JA5DQH were suffering with high fevers and other problems. Aki-san had a serious ear infection, and he virtually lost hearing in one ear for the entire operation. In spite of their suffering and being under medication, these nice people were still giving their maximum to provide you with a Spratly QSO.

9MØS was a splendid example of international amateur radio goodwill with very extensive media coverage in Eastern Malaysia. The group is very grateful to the various Malaysian governmental agencies that provided all the needed permissions for this unique event and especially to Mr. Mohd Elliza Bin Hashim, the commanding officer of the Swallow Reef for ensuring our total safety during the operation.

The Malaysian Amateur Radio Society based in Kuala Lumpur (9M2) and the Sabah Amateur Radio Society (9M6)

both played key roles in making this mission a success.

The multinational group at 9MØS was very honored being able to conduct the very first amateur radio operation from the Malaysian occupied Spratly Islands and to move Spratly down the most wanted lists. We appreciated the interest of the DX community.

73, Martti OH2BH

Operators:

9M2FK, Eshee; 9VIYW, Simo (OH2BQF); JA5DQH, Aki; OH2BH, Martti; OHINYP, Jouko; OH2MAK, Lasse; AB6NJ, Marko (OH6DO); N7NG, Wayne and WA6AUE, Jim.

The Big Hitters

compiled by Lou Beaudet, K6TMB

We sincerely thank the following individuals and groups for their generous support of the Northern California DX Foundation.

\$100 or more

CADXA, DL-312WW, DL2HQB, HC2HVE, JA3BKP, JA3XED, JA8IYI, K2PLF, K4IIF, K4KUZ, K4RZ, K6DC, K6HHD, K6ITL, K6MA, K6OZL, K6PU, K6RK, K6TMB, K8MFO, KA6ING, KE3AY, KG6WU, KH6WZ, KI6WF, KK6QM, KK6TE, LADX Group, N6HL, N6HR, OH0XX, OH5NQ, PA0GAM, SARL, TF3CW, VE7GV, VE7VR, VK5WO, W0CD, W0MLY, W0YK, W4WJ, W6AXH, W6DU, W6EEN, W6EUF, W6GO, W6OAT, W6PVE, W6QHS, W6RJ, W6RR, W6SQL, W6WKE, W6ZH, W7NCO, W8FLA, W8UVZ, W9QBJ, WA4DAN, WA6HXM, WA8LLY, WB6RZK, WB6ZKD, WB6ZUC, YB0EBS, JA1EM, JA2MNB, N8CEO, Yaesu

\$200 or more

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\$300 or more

WB6WCW

\$500 or more

K0IR

\$1000 or more

N6HZV

Northern California DX Foundation

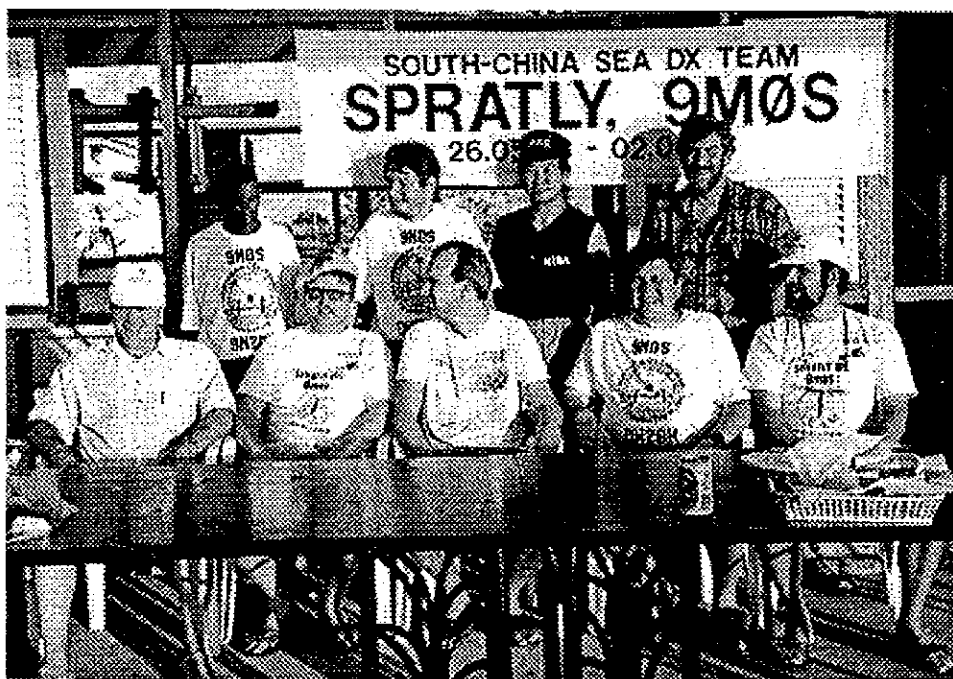
P.O. Box 2368

Stanford, CA 94309-2368

FAX (415) 948-4594

Phone (415) 948-1748

President: Eric Edberg, W6DU
 Vice President: Lou Beaudet, K6TMB
 Recording Secretary: Stan Kaisel, K6UD
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 Newsletter Editor & Publisher: Steve Thomas, N6ST



9M0S Crew. Front: (L to R) N7NG, OH1NYP, AB6NL (OH6DO), OH2BH, 9Y1YW. Back: 9M2FK, OH2MAK, JA5DQH, WA6AUE



DAGOE DXpedition Report of Ghana Trip 9G1AA

Nearly two years of preparation, letter writing, making budgets, calling meetings, making scenarios, telephone calls, etc. finally culminated in the long awaited telephone call on Friday 18th March 1993 confirming that all permits had been found in order and we were allowed to go to Ghana. The Ghanaian authorities faxed the declarations required for the equipment to Ghanaian customs. We were also told that the container in which antennas, cables, wire, coffee, tea, liquor and other sustaining material had been transported to the Dormaa Hospital had arrived.



Two transmitters, linears and keyers had been collected from the Schaart Co. in Katwijk, the Netherlands on the previous Tuesday. During an urgent meeting on Friday night it was decided that we would endeavor to fly out to Ghana on Tuesday 23rd March to lose as little time as possible. There was however a problem. We had neither tickets nor visas for Ghana. Moreover, the paperwork required for Dutch customs upon the return of the equipment had to be prepared yet.

The Merwede Hospital of Dordrecht, the Netherlands, (being the partner of the Bormaa Hospital)

organized the tickets and two members of the expedition left Monday early to obtain the visas from the Ghanaian embassy in Brussels, Belgium. To everybody's relief it took them less than half an hour to get the visas.

Another lucky circumstance was that one of our radio friends works for Dutch customs so that the necessary papers could be finalized in about half a day. During the weekend the two transmitters and linears were packed to be carried as hand luggage (total weight 100 kg).

Monday afternoon convinced us that nothing had been forgotten so that nothing could stop us from leaving on Tuesday by flight KL585 for Accra. To our delight the large amount of hand luggage caused no problem nor did the X-ray check, not even when the contents were revealed as being transmitters.

Our flight to Accra went extremely well without delay.

Upon arrival in between immigration and customs we were met by officials from the Dormaa Hospital since they had the original customs declarations for the radio equipment and knew one of the customs officers personally. All our bags and cases were cleared by customs by

means of a purple chalk mark and we were allowed through.

The next day we went to the Ghana Frequency Registration and Control Board where we found Mr. Kofi Asafua Jackson, who is a radio amateur (9G1AJ) himself, most helpful. The call sign 9G1AA was issued and all licenses were prepared. Mr. Jackson would bring the licenses on Sunday when he would officially start the DXpedition at the Dormaa Hospital with QSO with PAØLOU chairman of the IARU Region 1.

We drove to Dormaa Ahenkro that same day which turned out to be a very grueling eight hour trip on unsurfaced roads in the dark. It however gave us the much required advantage of an extra day to build the antennas.

The original plan was to put up two of the three monoband beams on bamboo towers. The Dormaa Hospital very kindly had more than 200 bamboo rods cut of 12 meters length each. Building a bamboo tower however is extremely labor intensive and the temperature is equally high; 40 degrees C tends to be the rule rather than the exception. Only one tower was built for the inverted 40 and 80 meter Vee's and not for the beams. A bamboo tripod with a height of roughly 15 meters was constructed for the 160 meter inverted Vee. The station as constructed looked like this:

Antennas:

One 3 element monoband beam for 10 meters, one 3 element monoband beam for 15 meters, one 3 element monoband beam for 20 meters, one inverted Vee for 40 meters, one inverted Vee for 80 meter, one inverted Vee for 160 meters, one 3 band ground plane for the WARC bands and 500 meters of RG-213U coax .

Transmitters:

Two transceivers Yaesu FT990 and two Yaesu FL7000 linears.

Accessories:

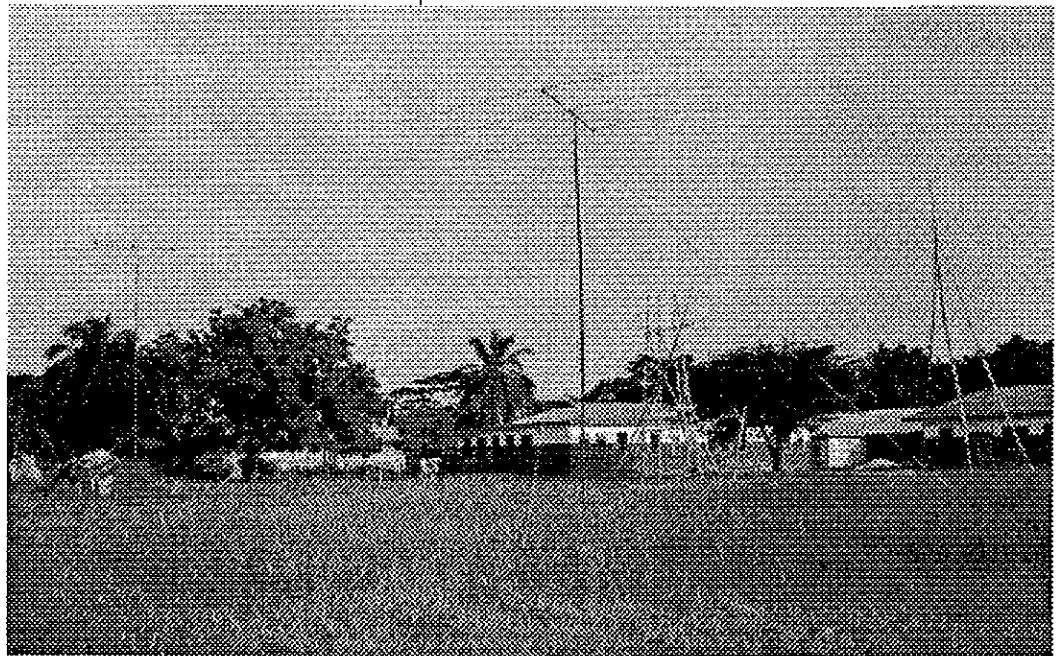
Two ETM keyers

Two laptop computers with one TNC for RTTY
Unfortunately the TNC did not function which

meant no RTTY operation. Some days later one of the computers also broke down. Both the transceivers and the linear amplifiers more than proved their worth; they were in use for a total of 384 hours, or 16 days at 24 hours a day, without any problems. Really excellent equipment.

The first QSO was made with Hans PA3FFJ on the 20 meter band. This was important because PA3FFJ was our daily link with home and our families in the Netherlands. After being sure that all worked well, the party could start ... We started working the pileup with a lot of stations calling. Everyone would like to be the first. hi!

At the time we did not keep an exact record but we estimate the number of contacts at roughly 38,000 QSO 's made by five operators working in shifts of



two hours on and one hour off with a daily rest period of nine hours. For this purpose a roster was made up every day and hung on the wall for all to see.

The principles of working which band and at what time were simple; the best conditions prevailed. Although obviously the less "popular" bands were not forgotten.

Working the 80 and 160 meter bands and to a lesser extent the 40 meter. band was a traumatic experience. It usually started in the afternoon with atmo-

spheric disturbances by thunderstorms (QRN) that would last until deep in the night or early morning. It was all due to the season although the rains should have started already. The atmospheric disturbances easily came to 40 dB over S9. For that reason we were unable to work many stations since we could not hear them although our signal generally was very strong. For the next time a better period would be mid-January with lower temperatures and no thunderstorms.

All in all our DXpedition was very successful. Our goal was to make 25,000 contacts and we surpassed that by 50%. This also means that our goal of "earning" money for a recovery room for the Dormaa Hospital has been achieved. The QSL mail as well as our sponsors ensured that the required amount of \$15,000 U.S. was raised so that the hospital can start building.

back on the "radio" map after such a long period of silence.

Apart from making contacts with the world, a number of crew members carried out a number of other activities in the hospital. The Merwede Hospital in the Netherlands had donated an overhauled industrial washing machine adapted to the tropics which our crew installed and made operational. Both instruction and manual were written on the wall with a felt tipped pen (so it cannot be lost)!

The Merwede Hospital also presented an electrical welding unit. We put it to good use for the antenna masts but also an "instant" welding course to two people of the technical department for simple constructions. This included repairing a broken lawnmower.

Back to amateur radio... On Sunday 11th April 1993 at 2400 UTC radio station 9G1AA was closed down, but not permanently. The Dormaa Hospital took over the call sign and our crew has each obtained a license to go on the air with this station. We are convinced that this will definitely happen again in the future.

The next day we dismantled the antennas that will stay at the hospital together with the cables. After all, we will be going back?



Heartfelt thanks from the 9G1AA crew consisting of PA3AWW, Henk; PA3DEW, Rob; PA3ERA, Arie; PA3FUE, Bert; and PAØTUK, Rinus, as well as QSL Manager PA2FAS, Wim, are extended to all those who made this possible.

Also because of our "harping" Ghana is back into amateur radio after a ban of more than 13 years. We are proud to have been the first station to put Ghana

After a farewell party, a hospital bus took us and our remaining equipment back to Accra on Tuesday. The next day we went to say good-bye to Mr. Jackson 9G1AJ and presented them with a FT990 for the use of Ghanaese radio amateurs with thanks.

We then had a well earned rest at Accra beach before flying back to Holland on Friday night.

We look back on our time in Ghana with great

satisfaction. We were able to help the Dormaa Hospital both with equipment and knowledge. As radio amateurs we were in a position to do something of which we could normally dream. To be the first station again after so many years and to process pile ups constantly. We learned a lot from people there of values that have been long forgotten in our "civilized" world and that were rediscovered in Ghana which are hard to express and can be experienced only. That is why we will be going back.

For award hunters we provide the "DAGOE-GHANA" award.

One should have worked 9G1AA two times on two different bands or on two different modes. The costs are \$5 U.S. or 10 IRC'S. SWL may also apply. The profits are also meant for the Dormaa hospital in Ghana.

Applications (with a log summary) should be sent to:

DAGOE-Foundation, P.O. Box 356, Dordrecht, the Netherlands.

Also available is a video tape, length 50 minutes.

As the big amount of the QSL cards, we will start sending our QSL cards NOT before September and of course: everyone who sent us a card will have one in return.

Over and out from 9G1AA (for the time being...)

N6RJ Memorial Contributions

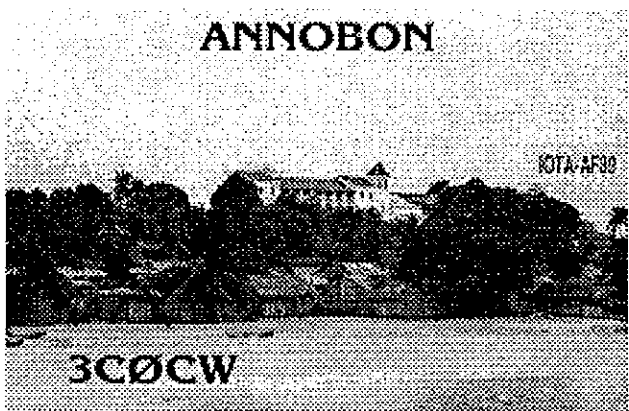
July 25, 1993

As most of you are aware, the amateur radio community lost a good friend and tireless supporter with the passing of Jim Rafferty, N6RJ. One of the causes that Jim's family asked people to support was the Northern California DX Foundation.

A number of Jim's close friends have asked the foundation to put together some sort of memorial that would recognize Jim's love of amateur radio and the on-going support for the foundation and it's efforts on behalf of all DXers the world over. This has been done.

From now until December 1, 1993 the foundation will accept separate contributions in memory of Jim Rafferty. These contributions will be pooled with the rest of the foundations resources but the individuals donating will have their call signs put on a plaque. This plaque will be presented to Mrs. Rafferty and subsequently hung in the Anaheim, California, Ham Radio Outlet where Jim was the Vice President of the company.

Anyone who desires to donate to this memorial should send their contribution C/O: The Northern California DX Foundation P.O. Box 2368 Stanford CA 94309 or to Bruce Butler W6OSP, Treasurer, 4220 Chardonnay Ct., Napa, Ca. 94558.



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How the 14.1 MHz Beacon Network Began A Short History

by John G. Troster, W6ISQ
NCDXF Beacon Coordinator

IARU International Beacon Coordinator

The idea for the beacon project began shortly after formation of the Northern California DX Foundation (NCDXF) in October, 1972. The new Board of Directors envisioned the organization would expand its horizons to include something of a scientific nature in which all amateurs, DXers, and non-DXers, could participate. NCDXF support for DXpeditions and overseas operations would be a priority because DXers of the world would be the major contributors to the Foundation. But we wanted to do more than just send out radios and DXpeditions and print QSL cards. We consulted our Scientific Advisor, Dr. O.G. "Mike" Villard, Jr., W6QYT, Professor of Electrical Engineering at Stanford University and Senior Research Scientist at Stanford Research Institute (now SRI International). Mike had an idea. He was concerned about the disappearance of fishing and other small boats in Alaskan waters every year. He believed that if the circulation of the Arctic currents were better understood, rescue ships searching these waters, would have a clearer idea where to look, thus increasing the chance for finding small, lost boats. To help solve this problem, Mike suggested the possibility that a floating beacon be dropped into Alaskan currents. This could be tracked by amateurs around the world to monitor the drift and course of the currents.

A friend of Mike's had just such a drifting beacon, made to transmit on 20 meters with 1 watt or 25 watts and it was being tested in Washington, D.C. Mike arranged for his friend to turn on the beacon one Saturday morning and a listening group was organized on 20 meters via the Northern California DX Club 2 meter network. The beacon was easily readable with 25 watts and pretty good with only one watt. So we knew the one watt QRP transmission could be monitored and used by amateurs some distance away.

There was One Big Problem with the drifting beacon: the cost. At \$25,000 each, this was about 25 times greater than NCDXF had in the treasury. In addition, these beacons were non-recoverable. But not to give up. The beacon idea was appealing, and with further thought, a way to develop a series of relatively low-cost, stationary beacons world-wide appeared possible. We could realistically do it. This propelled us to get started.

We set up a series of brown bag lunch meetings at SRI to explore possibilities. To do the heavy thinking we

recruited some of the fellows who had worked on Oscar I-IV: Chuck Towns, K6LFH, president of Project OSCAR at the time, Lance Ginner, K6GSJ and some of the other OSCAR people plus NCDXF Board Members Jim Maxwell, W6CF, and myself.

After a month or so of meetings, we agreed it would be possible to develop a world-wide beacon network which would feature beacons transmitting the same message of about one minute in length, on the same frequency, one after the other, going around the world. At Mike's suggestion we also planned to step down the power output of the beacons in 10 dB steps beginning at 100 watts. The beacon would come on the air with 100 watts, sign the beacon call, then step down to each of four power levels, 100 - 10 - 1 - 0.1 watt, and finally back to 100 watts for the sign-off call. Each power level would last about 15 seconds before automatically switching to the next level. All the planning and day dreaming was great, but who was going to design and build this thing? We looked at Chuck Towns and he looked deep into the engineering talent of Project Oscar and came up with an enthusiastic, knowledgeable, designer and builder, Jim Quimet, K6OPO. One more matter had to be addressed, and it was potentially the biggest hurdle. We would need an FCC license! We wrote a letter to Mr. A. Prose Walker, W4BW, then Chief of the Amateur Branch of the FCC, and it is not an exaggeration to say that the NCDXF/IARU World-Wide Beacon Network owes its existence to the early encouragement of Mr. A. Prose Walker! A prompt answer from him said essentially, he thought this was a good idea. He thought the plan showed the kind of creative ingenuity that produced Oscar 1 (although assuredly some magnitudes below). It was a program that would benefit and interest all amateurs, world-wide, and thus certainly of interest to the WARC-79 planners. In addition, he invited us to join the WARC-79 group which was beginning to develop the agenda for that important amateur international conference.

The WARC-79 meetings in Washington offered the all-important opportunity to discuss with the FCC Amateur Branch engineers, particularly George Enuton, what requirements would have to be met in submitting the proper application for an unmanned, automatic beacon on 14 MHz. One requirement was that we include a contour map showing the beacon location as well as the location of all primary and secondary operators in the San Francisco Bay Area who would be monitoring the beacon 24 hours a day, in case the beacon drifted off frequency, or the keying mechanism failed or anything else went wrong. This map had been a requirement for

early two meter repeaters. A lot of Northern California DX Club members did not realize they were now expected to have a receiver on 14.1 MHz day and night, and listen to it continuously! We applied for a license April 14, 1976. The license arrived dated August 17 1976 and we were assigned the call WB6ZNL, not exactly a nice crisp, short beacon-type call, but by golly, it was a license. We were elated and grateful.

Meanwhile, back in Palo Alto, CA, Jim Ouimet was busy designing RF circuits, timing circuits, power-stepping circuits, and all kinds of other circuits to make this new beacon perform as it should. Periodically we put a beacon on the air for a day, using a transceiver and keyer, but no power-stepping, just to use the call. One Sunday we went to the top of mountain and, with the help of local DX Club members calling, "QST, Beacon on 14.1 MHz", we got confirmation that the beacon was being heard throughout the USA and indeed we received one report from Europe.

Construction was painfully slow as Jim was commuting for his company. Finally, his job demands were so high, he had to turn beacon construction over to a colleague. However, Jim did the extensive Beacon bench testing when the time came, and it worked exactly what it was supposed to.

This first beacon was finally put in operation from a trailer Mike Villard had for a research project on a low hill overlooking the Stanford University campus in October, 1979. It transmitted its one minute message every ten minutes for about two years, with only a few midnight calls to go up and find out why it was not working. We received reports from all over the world telling of its reception. So here it was—a prototype beacon truly in successful operation.

Next step, build another eight or nine beacons for distribution around the world. Problem. Our beacon transmitter was complicated, and, we had to admit it, a real guy line anchor. Also Jim Ouimet was then being sent world-wide by his company for extended periods, so was out of the picture.

About this time, Dave Leeson, W6QHS, came on the Board of Directors of NCDXF. We described the problem to Dave and he went to work in his lab. He came up with a solution: use a Kenwood TS-120 as the beacon transmitter and build a black box to control the entire system. Dave built the control unit and hooked it up to the TS-120. Voila, a beacon transmitter that an average amateur with an average physical build and strength could lift.

Dave's new second generation beacon worked beauti-

fully. We put up two quad loops at right angles, complete with a phasing box, designed by Mike Stahl, K6MYC, then at KLM Electronics. At about the same time we were granted a new call for the beacon, W6WX/B. The foundation applied for it in memorial to well-known local DXer, Dave Baker, W6WX after his untimely death. That beacon was on the air almost continuously until 1990 when it was stolen from the trailer!

We needed eight more beacons. Who was going to build them? Fortunately, the late Cam Pierce, K6RU, took on the project with great enthusiasm. He recruited Merle Parten, K6DC, another NCDXF Board Member, and they set up a real engineering production line. Cam designed and built control circuit boards, designed and made cabinets, and also tested the units Merle made cables, and helped test the units.

As Cam Pierce was building the beacons, we began to contact potential beacon station operators around the world. At the United Nations, NY, we talked to Dr. Max deHenseler, HB9RS, Mister UN Amateur Radio. Max immediately said yes, he would like to operate a beacon there. Marty Laine, OH2BH, arranged for a beacon at the University of Helsinki and also in Madeira. Local DX Club friend Bruno Bienenfeld, AA6AD, introduced us to an astronomy professor, Dr. Ahron Slonim, 4X4FQ, at his alma mater, Tel Aviv University. Kan Mizaguchi, JA1BK, introduced the beacon idea to the JARL. We contacted old DX friend ZS6DN for a good location in the Southern Hemisphere. In Honolulu City College we spoke with Professor Bob Jones, KH6O. Later we received approval from Radio Club Argentina to put a beacon in Buenos Aires. We achieved a total of eight groups, ready to operate a beacon and join W6WX/B at Stanford in the first world-wide Beacon Network.

These new beacons were unique. Each would transmit the same one-minute message in sequence, one after the other on 14.1 MHz. The message was the same as before, call sign at 100 watts, then four nine second dashes at power levels descending from 100 watts to 10 to 1 to 0.1. Then back to 100 watts for sign off. This same message has been transmitted on 14.1 MHz by beacons in the Network for almost 14 years.

Beacons were boxed, courtesy of Ham Radio Outlet (owner Bob Ferrero, W6RJ, was an NCDXF Board member), and distributed to the operators as they were completed and tested. All of them have been in almost continuous operation since they were put on the air. We've had our adventures also. There have been two thefts, one at W6WX/B, the other at JA2IGY. Lightning struck a tree at ZS6DN/B which crashed into the an-

tenna. A hurricane flattened the vertical at KH6O/B. Once in a great while something went wrong within the beacon unit or power supply, but local repair took care of it. The TS-120's in general, have been remarkably free of problems. An outstanding record for the 12 years or so each of the beacons have been on the air.

The International Amateur Radio Union (IARU) had been interested in beacons on a world-wide basis for many years. In 1984 at an IARU Advisory Council meeting, Alberto Shaio, HK3DEU, then Secretary of Region 2 of IARU suggested that a frequency and time-sharing Network, as used in the NCDXF system, would be the best way to present beacons on a world-wide basis. We talked and have been working together ever since.

About four years ago it was decided to expand and upgrade to a multi-band Network. Ideas about expanding the number of beacons and making the entire system multi-band were also brought up. Again, the quest to find the right person, willing and able, and with the time, to do the technical work.

Quite fortuitously, at a meeting of the Northern California Contest Club, I met Bob Fabry, N6EK, retired Professor of Computer Science at University of California, Berkeley. Somehow we drifted into conversation about beacons and Bob ventured that he would be interested in building rather than programming for a while. We put Bob in instant touch with Dave Leeson, W6QHS, who designed the present beacons, and who just happened to be sitting at the next table. They started drawing pictures right then and there. They closely collaborated over many months until Bob had a prototype. Thus was born the new generation of beacons.

One of the goals was to shorten the time of each beacon's transmission so that we could increase the number of beacons without stretching the time beyond listener-attention span. So, Bob recorded beacon messages at various speeds, from about 7.5 seconds to 15 seconds; that is, beacon call, then four short, power-stepping dashes only. He played the tape for the Directors of NCDXF and we voted almost unanimously that 10 seconds would be about right. The same tape was played for a meeting of the Executive Committee of IARU Region 2. They agreed also that 10 seconds was good, but perhaps "just a little longer" would be better. We'll probably use about 12 seconds, which is five beacons transmitting per minute.

Using the technology available in a TS-140, Bob constructed a unit to control the functions of band-switching and power-stepping. He also used the new Trimble

Global Positioning System (GPS) receiver to assure accurate timing and control functions. Everything is state-of-the art in this new system.

As this new beacon was being crafted, we went to work with the IARU to secure additional locations for the beacon. One big need was to increase the number of locations in the Southern Hemisphere. To date, Radio Club Peruano, Radio Club Venezuelano, The New Zealand Amateur Radio Transmitters and the Radio Club of Sri Lanka have accepted an invitation to join the Network. An invitation has been extended to Australia. We hope someday to add a beacon in Central Asia, bringing to 15 the total Network of beacons.

Frequencies were chosen for the five new bands after a survey of several months by Bob Knowles, ZL1BAD, and his world-wide crew at the IARU Monitoring Service. Those are 14.100 - 18.110 - 21.150 - 24.930 - 28.200 MHz. We are quiet aware that 14.1 is in the middle of packet station QRM. However, W6WX/B is limited to that frequency because of our FCC license. Actually 14.100 MHz has been designated on the IARU band-plan as a "guarded" beacon frequency for many years. We are hopeful that packeteers will give just a little up or down and keep 14.1 clear for the Network.

That is where we are today. Within a year or so, we hope to activate the new Beacon Network on five bands. The listener can get 14 beacons transmitting around the world in just under three minutes. Or the listener may monitor a single beacon, switching through five bands in a little over a minute.

We are grateful to the 14 Universities, National Societies and numerous individuals therein, who have volunteered to operate the beacons in this expanded network. You will be reading more about these operators as beacons are distributed to them in the coming months. As the sunspot cycle passes through minimum and begins its climb back to DX glory, it will be of special interest to monitor the increased in HF band activity, with a full network of beacons on the job.



NCDXF DXCC Rocks Report to the Membership

Hey, all you DXCC rock hounds, we made it. Yep, we reached DXCC ROCK-100. And I know you're excited to know about the countdown to that historical moment when we declared a small piece of dark colored rock to be THE DXC CROCK-100, sorry, that's DXCC ROCK-100.

Of course, the count-down was conducted under exact and scientific control. When we advanced to DXCC-91, we began lining up rock packages on a bench from left to right as they arrived, DXCC-91 being the leftmost. More than a dozen rocks were needed for the final assault on DXCC-100, because there could be duplicates in some packages. Note that dupes are given the same number as the first rock from that particular country, plus a letter B or C or D, etc. When we had 15 packages lined up, we declared NDXCC ROCK DAY.

Suspense and anticipation. The packages were opened with ceremonious care, one by one. The first two were both from Egypt, sent by AA5NK. One was declared new for DXCC ROCK-92, the other a dupe. Two good new DXCC ROCKS sent by N6TJ from Saipan and Antigua. Then a dupe from Alaska from W6PAT, and another dupe from South Georgia, courtesy LA1GV. Another new one from Bouvet from LA1GV. That was number 95.

Next a KC4 rock from LA1GV and a gypsum specimen from the Sahara, sent by KF5DE/7 to reach DXCC-97. Then back to Crete with a piece of slate collected by SVØCR/9 and for-warded by SVOAA for DXCC-98. Two more contributions from SVØCR/9, SV8 and SV5; but alas, both dupes.

The next package from WB6VIN, contained two rocks. If there were no dupes, one of these rocks would be DXCC ROCK-100. Excitement level mounting. Steady the hand, don't be biased. Pick one, eeneey meeny. OK, I got it. Open wrapping. It was from Ireland, a new one. That's number 99. Gloria in excelsus. If not a dupe, the remaining unknown rock is the BIG ONE, DXCC ROCK-100!! Where did WB6VIN find it? Oh, unwrap it

and look. Wales! It's a new one. There it is DXCC-100, a rock for all ages. And what was it? Sorry, in all the excitement I almost forgot. The little rock 100, is a piece of slate collected at the wild Pheasant Inn in Llangollen, Wales. We have reached the goal, DXCC ROCK-100. Wish we could have stepped into yon Wild Pheasant Inn for a toddy of warmth and cheer to aid in the celebration. Instead, after all the stress and tension, I had to lie down a while to calm myself.

A few days later we summoned our rock-collection geologist, Don Eberlein, W6YHM, to officiate with his geology hammer, hand lens, and bottle of acid (to show the presence of carbonate). There were about 60 rocks to identify and Don applied his usual expertise expertly and had them identified in about four hours. Don, although recently retired, has been identifying rocks and studying other earth phenomena for the United States Geological Survey ever since we were in graduate school together a way back. Thanks Don for your usual fine work.

That's it all the way up to DXCC-100. Congratulations and appreciative thanks to each one for finding, packing, and sending a contribution. Each one was outstanding and of special interest. Thanks also to those of you who eagerly cheered on the DXCC-ROCK marathon. And thanks to the lucky 100-designate winner, WB6VIN, for his well-timed contribution.

To date, there have been a total of 160 rocks, less 43 dupes, sent to the collection. Which gives us DXCC ROCK-117. The latest one received, a piece of obsidian from Easter Island, was contributed by SMØAGD.

Now, where do we go from here? Shall we continue onward and upward? Did we hear, Press on. Let's go for DXCC ROCK-150. We're only 33 away! That's what we thought you said. Aye, there's the spirit. we'll go along with that. You send in DXCC ROCKS, we'll keep score and inch our way up toward DXCC ROCK-150. Progress reports will be issued periodically.

In keeping with the enthusiastic, competitive response shown, we'll declare rock 150 a second, special designation. One of you amateur radio operators from adventurous travels will submit it,

DXCC ROCK-150! It could be YOU!

Here is a list of countries that make up the NCDXF DXCC ROCK collection. Please **DO NOT SEND ROCKS FROM A COUNTRY ON THIS LIST**. when a country is listed, it means that we already have a rock from there. is, 3A, 3D2-Conway, 3D2-Rotuma, 3DA, 3Y-Bouvet, 3YØ-Peter I Island, 4S1 4U1ITU, 4X, 5W1, 5X, 5Z4, 6Y, 7P8, 7X, 9K2, 9V, A6, A9, AP, BV, BY, C2, C3, CEOY, CT, DL, EA, EA6, EI, ET, F, F08-Clipperton, F08 French Polynesia, FR/G, G, GM, GU, GW, HB, HBO, HH, HKØ-Malpelo, HV, HZ, I, 1AØ, J2/A, JA, JW, KC4, KG6, KHO, KH3, KH5, KH5K, KH6, KH9, KL7, KP1, KP2, KP5, LA, OD, OE, OH, OHØ-Market Reef, ON, P4, PJ2, PYO-ST Peter & Paul, PYØ-Fernando, SM, SP, STO, SU, SV, SV5, SV5, SV9, SY-Mt. Athos, T77, TA, TF, TK5, TY, UA2, UA9, UB5, V2, V5, V73, VE, VK, VK9-Heard, VK9-Xmas, VPI, VP5, VP8-Falklands, VP8-South Georgia, VP8-South Sandwich, VR6, VS6, VU, VYØ-St. Paul, VY1, W, XE, YB, YI, YU, Z2, ZA, ZD8, ZF, ZK1-North Cooks, ZK1-South Cooks, ZS, ZSØ.

REPEAT. WE ALREADY HAVE A SAMPLE from each of the above listed countries. Please don't send in another from those here shown.

In recognition and appreciation, we plan to send official certificates to each donor who has sent a rock to the DXCC ROCK collection we have greatly enjoyed receiving these rocks and are mightily pleased by the enthusiasm and interest with which they have been gathered and donated.

What has all this DXCC-ROCK business have to do with amatur radio and NCDXF? Gee, I dunno. Maybe it answers the usual tourist urge to bring something home from far reaches, and of course, it shows what wide-ranging, intellectual interests hams have. From the response we've had, it's apparent lots of you enjoy unusual collecting. we're glad. Thanks, and keep em coming.

Until next time, hold your rock hammers at high port. Thank you all.

73,

John G. Troster, W6ISQ "Rocky" Curator,
NCDXF DXCC ROCK MUSEUM

Odds and Ends

by Eric Edberg, W6DU

In the previous issue of the Newsletter I made a plea for more expeditious reporting of address changes. There seems to be a notable upsurge in those letters. We are much appreciative. There is, however, still an address problem. Since the change in the addressing of overseas military mail, we find that the Post Office does not continue to forward our Newsletters. Perhaps that is because they are not sent by first class mail. Please send us your new mailing addresses. It may be a nuisance for you, but we have no other way of getting your mail to you.

You may have read about a Caribbean DX Ham cruise last spring sponsored by Yaesu. At the end of the cruise they passed the hat and made a very welcome and generous contibution to the Foundation.

I have no other way of acknowledging this kindness so I hope that this note is read by each and every one of them. Chip Margelli, K7JA, in his letter of enclosure, has an interesting paragraph. "You may be interested to know that our Cruise participants made approximately 10,000 QSOs from Aruba, Bonaire, Curacao, Barbados, Martinique and Maritime Mobile, undoubtedly setting some sort of perverse record by activating about 270 different call signs during the operations."

I am happy to report that the incumbent officers and directors all wished to continue in present positions and were re-elected.

Elections are held on a yearly basis, usually at the June Board meeting.



Official NCDXF-DXCC Rocks Collection Geologist, Don Eberlein, W6YHM, standing beside the rock archives



Pekka, OH1RY operating SSB from Banaba



Mats, SM7PKK operates CW from Banaba



A local, Gwen (now SM7PKK's XYL), and TF3CW raising 10 meter antenna on Banaba

Editors note: These pictures are scanned prints of video images originally printed by a Panasonic Video Printer from videotape.

New Programs

by Josephine Clarke, WB6ZUC

I'm happy to report that we have some new slide programs. Jim Smith's DXpedition to Willis Island during October 1992 is of about 36 minutes duration and features Jim's usual fine job of narrating.

Then we have Jim Smith's S2, Bangladesh trip of 1992, which has received excellent ratings from the few clubs which have seen it so far.

Another new slide show, VK9XN-VK9XM, is from W5KNE, Bob, and again this is a professional job describing in pictures and narrative his trip to Christmas Island.

Lastly, we have a new slide show about Jarvis, KH5, 1992, taken and recorded by WA6AUE which has an interesting account of this DXpedition.

As for the new VHS programs we have the following:

The 1992 trip to Navassa Island by WA4DAN, AA4VK, NØTO, KW2P AND AA4NC is a good description of the difficult landing on this island and operating from the same lighthouse area which the 1988 group used.

"Getting Started in DXing" by CQ Communications augments the coverage done by the ARRL and the Zman productions tapes and has a wonderful segment showing a YL knocking off a line of brand new countries from a modest station. Fun.

"The Radio Ham" is an English comedy purporting to show an early ham with a valve rig. The English hobbyist brings home a new "valve" which had taken months to acquire and then you watch some of his experiences after he gets on the air. Zany and fun. I thoroughly enjoyed it but realize not everyone enjoys English humor. Use your judgment on this one.

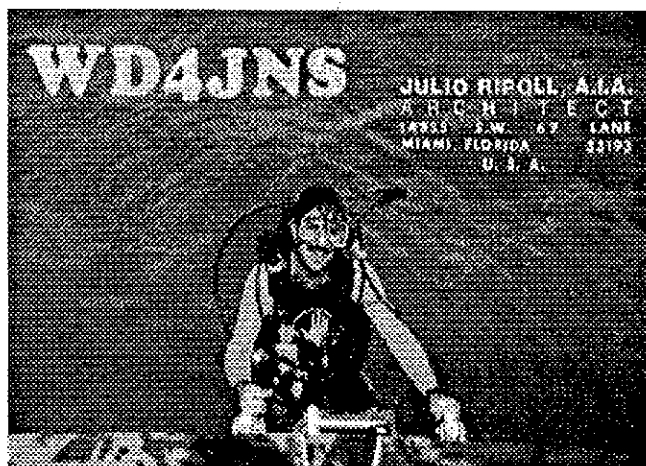
"Project Irma" is a short tape of one of the humorous programs presented at the 1993 Northern California DX Convention when a DX Truth-O-Meter was used to test W6RJ's veracity about working 80 meters. Produced by K6ITL.

The ZL9DX tape about Auckland Island has The

usual good photography which the Japanese (in this case JH4RHF) bring to their videos and stresses nature on this island.

Lastly we received a new tape of the 1992-3 trip to Desecheo from NØTG, KW2P, WA4DAN, WØRJU, and AA4VK. This one is the complete story about the latest DXpedition to that area.

With these new programs the Foundation Library continues to grow! We are already being used as a reference library for operators going out on DXpeditions, and that is good. Plus we are recording "ham" history for those coming down the trail.



73 from the Land of Enchantment
NEW MEXICO, U.S.A.

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Slide Shows and Videos

The Northern California DX Foundation has a number of slide shows and videos available for loan to organizations wishing to show them at meetings. Clubs borrowing materials are responsible for postage in both directions. The amount involved can be learned from the postage on the package when it comes to you and is usually about \$2.90. Please give the name of your club, the day of the month you meet and more than one choice of program in case there is a great demand for the item. Correspondence should be addressed to Josephine Clarke, WB6ZUC, P.O. Box 788, Kentfield, CA 94904.

Available Slide Shows:

1. Kingman Reef and Palmyra Island expedition of 1974 (148 slides)
2. K5YY on Africa of 1978 (62 slides)
3. Colvins on Easter, Galapagos, San Andreas, etc 1984 (140 slides)
4. W6REG & ZL1AMO, Kermadec 1984 (58 slides)
5. AH0C (Saipan) CQWW Contest Operation of 1983 (82 slides)
6. 1985 Clipperton expedition (191 slides)
7. Ponape Island by N6HR, travelogue (81 slides)
8. Pribilof Island operation of 1982 (48 slides)
9. Midway by NA6T & KD7P (120 slides)
10. Antarctica, Arctowski, Palmer, Peter, Macquarie stations (101 slides)
11. VR6, Pitcairn, Mar/Apr 1979 by ZL1AMO & ZL1ADI (51 slides)
12. SM0AGD 1982 Pacific DXpedition (150 slides)
13. 9U5, Burundi by ON5NT (57 slides)
14. TYA11, Benin by ON5NT (61 slides)
15. VK3DXU/2, Lord Howe Island by K2UO (52 slides)
16. 3A, Monaco, by F6EYS & F6HIX of 1984 (43 slides)
17. 5X5, Uganda by DJ6SI of 1985 (115 slides)
18. Market Reef, July 1983 by PA0GAM/OH0/OJ0
19. XX6DS, Marshall Island (34 slides)
20. Andorra, by DL1HBT, DL3HAH, DL5BAD, DL4BBO, DL4BAH (50 slides)
21. 1986 Clipperton DXpedition (176 slides)
22. Peter I Island, 3Y, of 1987 (127 slides)
23. KP2N, 1986, CQWW DX CW contest (55 slides)
24. OF0MA, Market Reef, 1987 (28 slides)
25. Abu Ail, AI5AA, by DJ6SI, 1988 (65 slides)
26. XX9CW by DK7PE, 1986 (16 slides)
27. 1988 Palmyra by K9AJ, KP2A, WA2MOE, W0RLX, F6EXV, JA5DQH (93 slides)
28. 1988 Kingman by the above operators (96 slides)
29. 1988 4U, KC4, VK9Y, VK9X and 9V1 by W7SW (73 slides)
30. Banaba Isl, T33JS+T30 & T27 by KN6J & VK9NS (80 slides, 80 minutes)
31. XF4L by XE1L, XE1OH, XE1XA, OH2BH, OH2U, JH4RAF, W6RGG & N7NG
32. Publishing the DX Bulletin by Chod Harris 24 min
33. Rotuma 1988 by W6SZN, 73 minutes
34. 4J1FS, MV Isl, 1989 with Finnish, Soviet & American DXers by K7JA 16 min
35. ZS8MI, Marion Island by Peter Sykora, ZS6PT 1 hour
36. Y63-KC6-P29, Micronesia/Melanesia by KQ1F & K1XM 20 min
37. YL DXpedition to Wallis Isl June 1989 by NM7N, N7HAT, N4DDK, KA0MX 20 min
38. A51JS, Bhutan by VK9NS, Jim Smith 1 hour
39. HC8X, Galapagos by KQ1F 34 min
40. Faroe Island May 1991 by N6HR 28 min
41. Palmyra Island, KP6AZ, 1963 by W6FAV
42. VK9WW-VK9NL/W Willis Island Oct 1992 by Jim Smith, VK9NS 36 min
43. S2-Bangladesh 1992 by Jim Smith, VK9NS 26 min
44. Christmas Island 1992 VK9XN - VK9XM by W5KNE 50 min
45. Jarvis, KH5 1992 by WA6AUE 45 min

Available VHS videos:

1. XU1SS (plus BV0YL and BV0JA) (35 minutes)
2. 7J1RL of 1976 and 1978 (includes ZK9ZR, Mellish Reef)
3. VK9ZR DXpedition of 1978 (plus Ogasawara)
4. Frankford Radio Club ARRL phone parody + JH7YFL WWCW
5. JF1IST/7J1 DXpedition to Okino Torishima of 1979 (25 minutes)
6. Australian travelogue - Climbing Big Ben, Heard Island (55 minutes)
7. Ham Radio in the South Cook Islands by ZK1CA & ZK1CT (70 minutes)
8. VR6 by ZL1AMO & ZL1ADI (copy of slide show above)
9. Looking Up in Rio Linda, 1986 by W6GO/K6HHD (45 minutes)
10. Revillagigedo, XF4DX, of 1987 (15 minutes)
11. Northern Texas Contest Club - towers and contesters (45 minutes)
12. It Started With A Broken Fence - JH3DPB Tall Tower tale (15 minutes)
13. Pile Up Busters, Humorous. (10 minutes)
14. FG/W2QM/FS, French St Martin, DXing Senior Style - Another Wrinkle to DXing
15. 1984 Laccadive Island DXpedition, VU7WCY, plus 1983 VK0HI from TV (60 minutes)

16. The K6UA contest station story (25 minutes)
17. HK0TU DXpedition of 1983, Malpelo (25 minutes in Spanish)
18. The Ship That Shouldn't Have - VK0JS Heard Island DXpedition (90 minutes)
19. The New World of Amateur Radio (28 minutes)
20. S0RASD 1987 by the Lynx Group, The Western Sahara Story (37 minutes)
21. Auckland Island 1988 by ZL1AMO, ZL1BQD, N7NG (60 minutes)
22. Dr. Owen Garriot's First Talk to hams about the Space Shuttle
23. Russian Ham Radio Tour by WA6WXD, Oct 1986 (45 minutes)
24. 3Y DXpedition 1987 - W4VWA copy of the slide show
25. Peter I 1987, from JA7ARW
26. 1979 Spratly Isl DXpedition by K4SMX, K1MM, VK2BJL, N200, N4WW & KP2A
27. 1988 Mahj Vysotskij Island by OH2BH, UZ3AU, OH5NZ, UR2AR, OH2RF, UW3AX 23 min
28. 3W8DX & 3W8CW by HA5MY, HA5WA, HA5PP, HA5BBC, Nov. 1988 Produced by W4BRE
29. Aruba, P40V CQWW Test (12 min)
30. A Message from Barry Goldwater, K7UGA (12 min)
31. Navassa of 1988 by N2EDF, K2SG, KE4VU, KD2NT, N4GMR, KT2Q, W3GH (38 min)
32. Rhodes, SV5, by N200 & SV0AA, April 1989 (40 min)
33. N01Z/KH1, Howland Isl 1988 by N01Z, 7J3AAB, TR8JLD, VK9NS & VK9NL (20 min)
34. Boeing ARC at the Electronic Convention and Great Wall of China (audio tape + VHS 30 min)
35. KC Club DXpedition to Tonganoxie Island (30 min)
36. Tuvalu 1989 by K6EDV and ZL1AMO (27 min)
37. Visalia Convention of 1990 recorded by W6NLG (2 hours)
38. Rotuma, 1988 copy of the slide show (73 min)
39. XW8CW & XW8DX 1989 by HA5PP & HA5WA (27 min), produced by W4BRE
40. XU8CW & XU8DX 1990 by HA5PP & HA5WA Produced by W4BRE (27 min)
41. All China Amateur Radio Dfing Competition + BY1PK (32 min)
42. ZS8MI by ZS6PT, partial copy of the slide show (40 min)
43. Jim Smith, A51JS, VK9NS, visits the SF Bay Area by WA6BXV (80 min)
44. R9ZF/NN7A, NN7D & W7YS, Aug. 1989 Lake Teletskoye, Siberia (30 min)
45. VU7, Laccadive Isl 1984 (65 min)
46. VU7, Andaman Isl 1987 by Combatore Radio Club (30 min)
47. 3Y5X Bouvet 1989. Video by JF1IST (in Japanese, good photography) 35 min
48. VR6TC speaks to the Turlock ARC. 1991 by K6IMN (125 min)
49. 1990 World Radiosport Team Championships in Seattle (25 min)
50. ICOM's "More Than Radios" The legacy we leave to the young. (25 min)
51. T33R-T33T Banaba, Nov 1990 by SM7PKK, TF3CW, OH1RY (22 min)
52. This is ATV by Western Washington AT Society (12 min)
53. New Horizon: South Pacific Adventure by AA6LF (55 min)
54. YB3ASQ: Indonesian Stations and Sightseeing by W7TSQ 25 min
55. XF4L of 1989 by JH4RHF, XE1OH, OH2BH, W6RGG, XE1L, OH2BU and N7NG 25 min
56. ET2A by W4IBB, Jack Reeves May 91 12 min
57. IS0XV by UW3R et al July 1990 35 min or 2 hours (your choice)
58. Jarvis 1990 by K3NA and KN3T 35 min
59. 3C0CW, Annobon 1991 by the Garrotxa Club of Spain
60. Araucaria DX Group of Brazil, about contest stns and ops 30 min
61. 9L1US by Dave Heil, K8MN Ed. by Jim Hurst, West Ga College & W4VWA (45 min)
62. Dave Heil, K8MN visits Finland. Edited by Jim Hurst & Henry Owen, W4VWA (35 min)
63. Penguin Isl. 1990 from a slide show by Wayne Mills, N7NG, Produced by MoBre (15 min)
64. PJ9W-1990, "Spirit of Victory", Radioteam Finland, Produced by WA7LNW (48 min)
65. Empire of the Air; The Men Who Made Radio Recorded by K16YB
66. Contest Night Live, by the Kansas City DX Club (30 min)
67. DXing Kansas City Style, by the Kansas City DX Club (30 min)
68. VP8ANT/G3CWI The story of Richard Newstead on Adelaide Isl (45 min)
69. H44 Soloman Island DXpedition (12 min)
70. VP2EOH 1992 by Northern Ohio DXA (29 min)
71. Christmas Island March 1990 by JH1LBR. English audio by WB2CHO
72. VP8SSI South Shetlands 1992. (46 min)
73. More About Radios by Zman Productions - an intro to the hobby (28 min)
74. Navassa Island Jan 1992 by WA4DAN, AA4VK, N07T, KW2P and AA4NC (25 min)
75. Getting Started in DXing by CQ Communications, Inc. (52 min)
76. The Radio Ham starring Tony Hancock English Comedy (26 min)
77. Project Irma: The DX Truth-O-Meter, Northern California DX Convention 1993 (25 min)
78. ZL9DX, Auckland Island by JH4RHF
79. Desecheo 1992-3 by N07TG, KW2P, WA4DAN, W0RJU and AA4VK (40 min)

1993 Contribution

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 \$25 U.S. or its equivalent in foreign currency or IRCs. However, we do not wish to exclude anyone from the Foundation for financial reasons. If \$25 is not within your budget, then please give what other amount you can. Naturally, we welcome contributions in excess of \$25! The NCDXF is an organization as 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.



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