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The DX Magazine FEATURE

Penguin Islands

The ZS9Z/ZS1 DXpedition to this Potential New DXCC Country

by Chris Burger ZS6BCR

When the Pretoria Branch of the South African Radio League introduced their VHF Award series early in 1986, a project was launched by ZS6BCR, ZS6WB, and ZS4TX. This involved travelling from grid square to square, and operating on four bands (50, 144, 432, and 1296 MHz), making them available to the VHF men. This eventually led to the activation of several dozen grids that did not have resident activity, as well as the first-ever six-meter activity from several Zone 38 countries, and a few moonbounce contacts from several of these countries.

During this project, many hours were spent pouring over maps, while planning trips to new squares and planning meteor-scatter schedules and beam headings.

One thing kept attracting our attention: a string of little islands off the coast of the then-South West Africa were clearly marked as South African territory. Were they a possible new DXCC country?

The announcement of the imminent implementation of United Nations Resolution 435 for Namibian independence caused me to start researching the issue of Walvis Bay and these islands thoroughly, with a view to submitting petitions for their inclusion on the DXCC list.

The ZS9Z team from left: Martti OH2BH, Pertti OH2RF, Chris ZS6BCR, and Wayne N7NG. Seated in front is Hal Lund ZS6WB and his family.

It turned out that both Walvis Bay and the islands had been part of the Cape of Good Hope (Republic of South Africa) even before German South West Africa was annexed by the Germans during the 19th century. They became British territory for different reasons: Walvis Bay provided a good port for the traders there, and the British government offered their subjects their protection by annexing the area as part of the Cape of Good Hope. The islands are not related administratively to Walvis Bay. Instead, they are a valuable source of guano, and have been mined extensively since around the turn of the century.

The German annexation of German South West Africa (now Namibia) followed, and the British responded by claiming Bechuanaland (now Botswana) to avoid the Germans making contact with the Boer republics of ZAR (now Transvaal ZS6) and the Orange Free State (nothing's changed there, except that it now sports the callsign prefix ZS4).

The post-WW1 League of nations mandate for South Africa to administer the territory of South West Africa did not

include the islands or Walvis Bay, as these were and are part of the RSA already. This is why ZS3 calls were allocated to SWA, and ZS1 calls to Walvis Bay, except for a short period when Walvis Bay was administrated as part of SWA.

As far as DXCC is concerned, Walvis Bay was always a sensitive case. There was a lot of rhetoric about the validity of the League of Nations mandate in the light of it having been replaced by the UN. The General Assembly of the UN resolved in 1978 that the territory of SWA had to be renamed Namibia, and that it was to become independent as soon as possible. This resolution is the well-known Resolution 435.

In the light of this resolution, the ARRL apparently decided that SWA was neither fully independent nor fully South African territory, and thus Walvis Bay stations were placed in a special category along with Maritime Mobile stations: their cards were accepted for neither SWA (ZS3) nor the RSA (ZS).

This situation obviously needed addressing, but all attempts to do so had drawn a blank. My petition would center on proving that the new Namibian government would in fact be wholly independent from the RSA. The petition was in an advanced state of completion when Bill Schipp, KC1AG, submitted his petition on the same subject to the DX Advisory Committee (DXAC) of the ARRL. Bill's petition was well-researched, well-written, and, perhaps most importantly, he had noticed a quirk in the wording of the DXCC criteria which rendered the issue of Namibian independence irrelevant (the criteria refer to an intervening DXCC country, which Namibia definitely was).

The petition was approved, Walvis Bay was added to the countries list, and the ZS9 prefix was assigned to stations in Walvis Bay. But what about the islands?

Another petition was submitted by Bill Schipp last June, the purpose of which was the addition of the Penguin Islands to the DXCC countries list. This petition was co-signed by Hans Hannappel DK9KX and Ian Sutherland ZS9A, one of three active amateurs in Walvis Bay. As of February 1991, the DXAC decision on this subject was still pending.

To coincide with this submission, an operation was run from Seal Island, in Luderitz bay, as ZS9AAA/1. Operators were mainly Germans, with ZS9A being the most notable exception. They were worked in Europe on several bands, and were very active on 21 MHz CW, but complaints were heard from the US and Japan that their signal was not very workable. They made around 12,000 contacts.

Penguin Island from the air, in the center. Lüderitz Bay is at the left, and Seal Island is to the right.

Being subject to a rather inflexible schedule (as I am a full time university student) I had been contemplating an operation from Walvis Bay for the December 1990 time frame for some time. The Penguin Islands were regarded as only a dream at this stage, due to the considerable logistical (read financial) requirements. Imagine my elation when a letter arrived during mid-October from Martti Laine OH2BH, suggesting that we go there to run a major multi-station DXpedition during December!

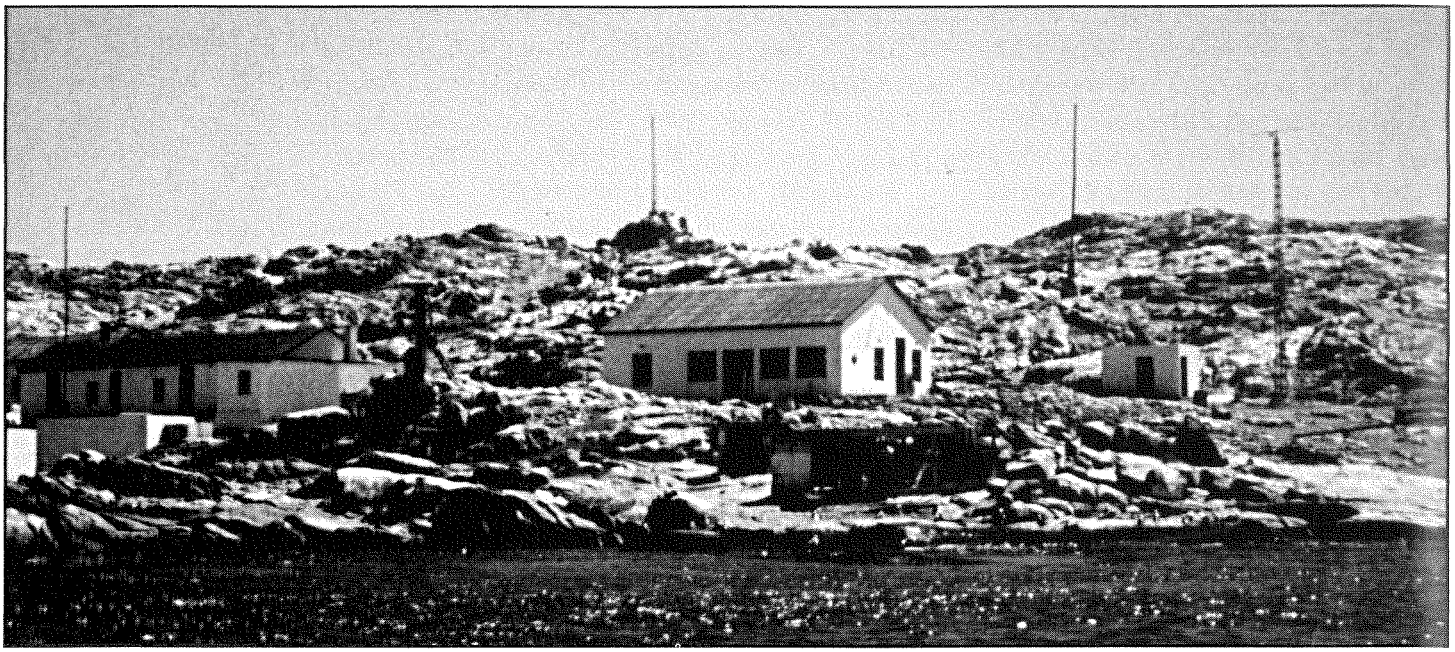
I immediately responded, and the operation was on its way. This was to be the first of a series of over 100 fax messages during the following six weeks.

I was responsible for logistical support, and had to try and find one more ZS operator. Unfortunately, the only ZS that I regarded as up to the operating side of things on both phone and CW, Bernie van der Walt ZS4TX, would not be able to get leave during the period concerned. So, the muscle had to be imported. The planning called for a one-week operation during December.

October and November consisted of a mad rush to get the necessary licenses, landing permits, aeroplane bookings, and logistics together, and moving house. Oh, yes, I should not forget that this period happens to be exam time too, and eleven papers had to be written during this period, as well as the fact that several projects had to be handed in during this time. But, back to the important stuff.

The South African Radio League was approached to find out what their attitude was to the petition; they wrote a letter to the DXAC of the ARRL, expressing their support for the country petition.

The Cape Provincial Administration was approached and landing permission



Three abandoned, guano-filled buildings provided shelter for the DXpeditioners, but they had to haul a Rohn tower to the top of the hill in the background to get a clear shot to the US.

was obtained. They had been totally unaware of the existence of an amateur radio interest in the islands, and were under the impression that the previous operation had been a one-shot event. I supplied them with a copy of DXCC rules, several magazine articles on DX-peditioning, and a complete explanation of amateur radio's interest in the island and the probable future demand for the islands. They were very cooperative, but have indicated that operations in future would probably be restricted to once a year, and strict selection would be applied to potential candidates to ensure that the demand is filled to the greatest possible extent by each operation.

Their concern centers around the ecological sensitivity of the islands: they serve as habitat for literally millions of sea birds, including some endangered species.

This would be my ninth DXpedition, but I have to admit that I initially underestimated the logistics involved in placing five guys with a couple of big signals on a little island with enough supplies to last two weeks, in case they get trapped by bad weather. In our case, this included 500 liters of fuel, 1000 liters of drinking water, around two tons of equipment, three towers, and five antennas.

The success of an operation of this nature depends on very loud signals; it is of no use to be able to work only the big guys. This is why 400-watt amplifiers (the legal limit) and big antennas are an absolute necessity.

Fortunately, I had a lot of the necessary material on hand from previous operations. I own a seven-meter trailer, a Rohn BX tower, and a Butternut HF2V that had been donated by Butternut for DXpedition use. [See the September 1989 issue of *The DX Magazine* for a photograph of Chris's travelling tower. - ed.] Hal Lund ZS6WB had another Rohn tower and a portable mast, as well as the VHF antennas to hand. Still, a lot of equipment had to be acquired, including containers for the fuel and water, which could only be handled in small units due to the manual unloading operation that would be required on the island. The 64 cans we eventually used filled Hal's delivery vehicle to capacity!

Things take off

Our operators arrived about a week before the operation, and spent a day with Hal Lund ZS6WB and his wife Dalene. This time included assembling all the antennas that had been hand-carried, checking the tribander, and discussing administrative issues.

The crew was small, due to the restrictions of operating from a wildlife reserve, but each man could do duty in one of a variety of roles. All were equally at home on phone and CW, and special interests such as the low bands and RTTY were also well covered by several crew members.

Martti Laine OH2BH needs no introduction. At this point one normally proceeds with an introduction spanning several paragraphs. I will break with that tradition and give none.

Wayne Mills N7NG has operated in several major operations: P4ØV, Clipperton, Jarvis, Auckland Island, and XF4L are some of the most well known. He is also a reliable Wyoming multiplier in most contests, and is a Yasme Director. Professionally, he is a communications specialist, and deals mainly with VHF systems. He is a competent antenna man, and leans toward CW when the opportunity permits.

Pertti Turunen OH2RF is a medical student, and at age 24 the youngest member of the crew. He had been an opera-

tor at Jarvis, and was on the first MV-island 4J1FS operation.

I was responsible for logistical coordination. Past experience included eight DXpeditions to various Southern African countries, including Swaziland, Botswana, Lesotho, (hosted by ZS4TX) and Nnamibia. My main amateur interest is contesting, and with a modest station have been heard in major contests at least a few times in the past eight years.

Maybe the most important member of the crew was Joshua Engelbrecht. He is a student, and has just passed his amateur radio exam. He should be heard on the bands one of these days sporting a ZS callsign.

As a student, he has been working for Hal Lund ZS6WB on a part-time basis as a station technician for about a year now. During the time on the island, he was responsible for station maintenance and housekeeping (including cooking), freeing the four operators to keep the stations going. It has yet to be determined whether the DXpedition experience will get him deeply involved with DXing or whether it has put him off for life!

Windhoek

Stage one of the operation was the CQWW DX CW contest.

I operated from home, and the rest of the crew was joined by Ian ZS9A in a multi-multi effort from Derek Moore V51DM's station.

My effort sank when I realized that the previous weeks had taken their toll, and I got some rest for the forthcoming operation instead. I just prowled around looking for new ones, and around twenty hours of operation netted only 1500 contacts for a score of around 1,5 million points. An interesting aside is that I had to move house the week before the contest, and would have really run out of time if my father hadn't offered to pack all my belongings into cardboard boxes and have these boxes stored away. Hal and his wife Dalene also undertook some of the last-minute organizing and shopping for me. This really saved the day, as time just ran out totally at the end.

The boys in Windhoek were more successful; they made around 6000 contacts, the most ever made in a contest from Zone 38. They used my call sign V51Z, and QSLs go to OH2BH for this contest operation only.

On the Monday after the contest, Derek Moore organized one of his pilots to fly the contest crew down to Walvis Bay for a visit. The Colvins were there, and Martti, Pertti, and Wayne had the opportunity to meet John Smith ZS9S as well.

Penguin

Stage two saw all the operators gathering in Luderitz for the trip to the island. Joshua and I were late, as we had to drive close to 2000 km and had tremendous problems with the vehicle. This meant that the operation had to be postponed by a day.

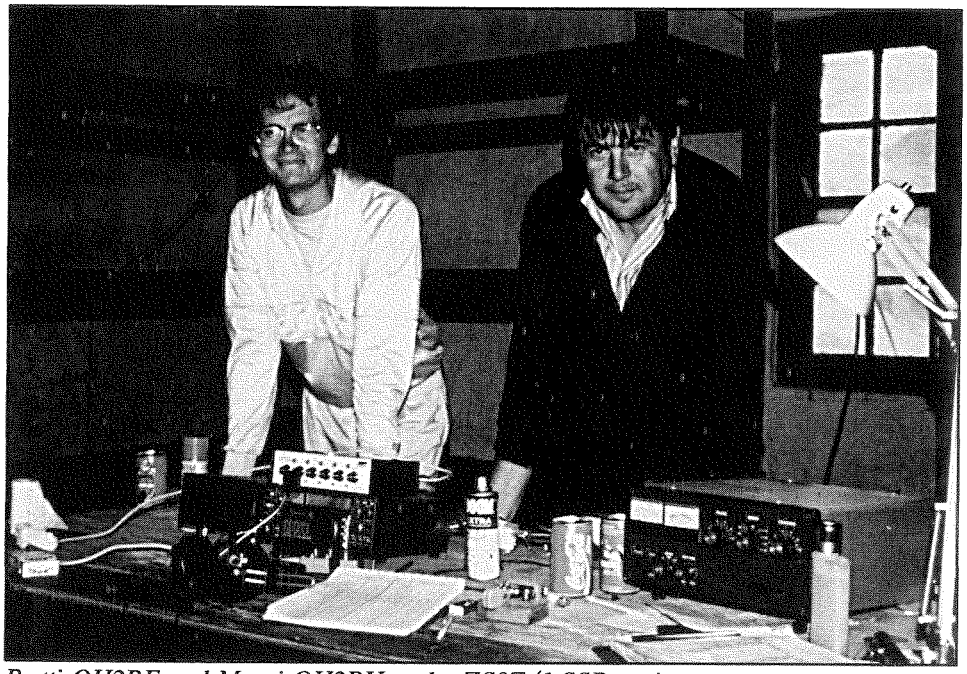
Although I had considered using a helicopter to lift all the stuff onto the island, this proved both unnecessary and impossible; unnecessary due to the short distance and sheltered waters, impossible due to the presence of thousands of birds on the islands.

We made the trip to the islands in a motor-boat owned by Heiko Metzger. Heiko had acted as our contact in Luderitz, and is a diamond diver who holds the only charter licence in Luderitz. Luderitz is diamond territory; if you stray more than ten meters off the road from the interior, you are in the Sperrgebiet (German for restricted area) and may be shot on sight. Heiko owns a boat that sucks diamonds from the sea bed, and this had just been completed before we arrived.

We had a look at both Penguin and Seal islands, and visited the operating position of the previous group on Seal. Their location was on the eastern edge of the island, with a rapid rise to the west and northwest, blocking the path to the US.

Penguin Island was not as steep, but the crest of the ridge was considerably farther, and long feed lines would be needed to get up there. The matter was decided by the fact that the landing on Penguin is considerably safer and easier, and Penguin became our choice for the operation.

Penguin Island sounds impressive; it is a misnomer, as it has nothing to do with penguins, and is not really much of



Pertti OH2RF and Martti OH2BH at the ZS9Z/1 SSB station.
(Shades of the late Gus Browning W4BPD with the cans of Coca-Cola!)

an island. It is a huge, bare rock sticking out of the sea, sporting no vegetation except a few dozen small shrubs. There are no penguins, only several thousand gulls and a single colony of cormorants.

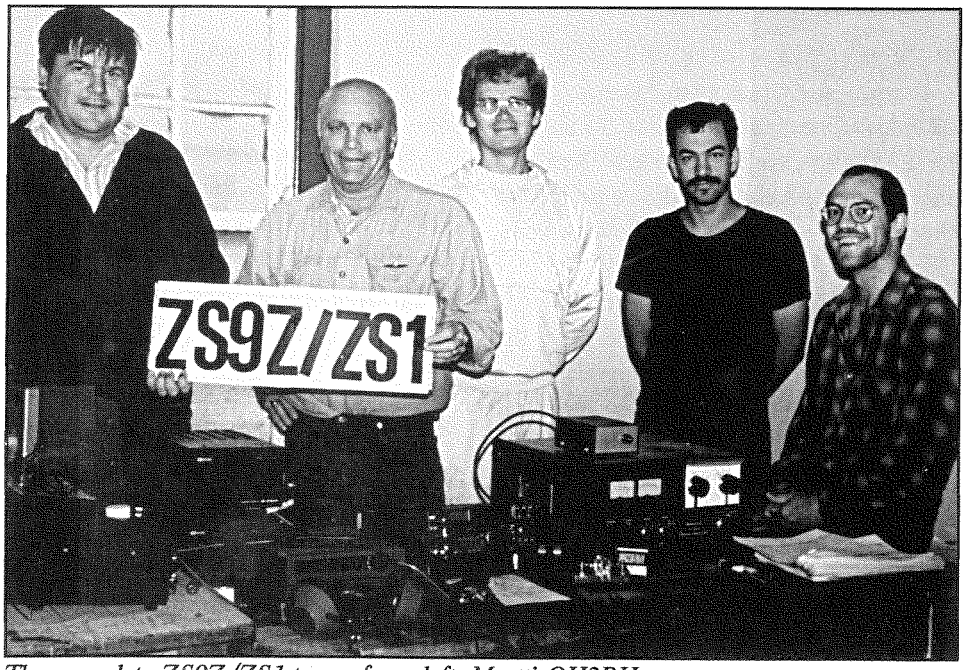
We were extremely fortunate in that the sea wind was relatively calm; only about 20 knots. During our stay, the wind seldom exceeded 40 knots, making for considerably deeper sleep than would have been possible with higher winds.

I had shipped a lot of equipment to Heiko some weeks before; this also caused some anxiety, as the promised turnaround time of seven days was exceeded by more than a week, and the container arrived only three days before our departure to the island. This material, plus the full contents of Hal's 4x4 vehicle, its roof rack, and my trailer, needed around a dozen trips to get onto the island.

In the funny department, something must not go unreported. While unloading the 4x4 vehicle, Pertti piped up, "You guys are just like the Americans, taking a fridge wherever you go." I explained that the fridge had only been brought because it was on the check list of a previous operation that Martti had faxed as a starting point for pulling together the logistics.

The previous operation had been their only one with a fridge. I still recall feeling mildly surprised by fridge on the check list, but what the heck, with over two tons of equipment, it wouldn't make that much difference. Well, it did prove very pleasant to have cold milk and soft drinks available!

To maximize the probability of wind survival (locals talk of 40-knot winds lasting weeks), lattice towers were used rather than the more usual push-up masts. Station building took the whole day, and at 10 pm on Wednesday 28 November, I was pushed into taking to the air as ZS9Z/ZS1. This apparently had something to do with punishing me for doing antenna work that day.



The complete ZS9Z/ZS1 team, from left: Martti OH2BH, Wayne N7NG, Pertti OH2RF, Chris ZS6BCR, and Jashua.

I was amazed at the pileups; 10 kHz of the band would be totally swamped by hundreds of callers, and nothing I had ever encountered in contesting or DX-peditioning had prepared me for this. Rates were way down due to the QRM, and my first three hours produced only 400 contacts!

There were two totally independent stations, each running 400 watts to a separate antenna. External filtering was used to eliminate all inter-station interference, and we were able to run two signals on the same band simultaneously. This meant that we could exploit the best band openings fully, by having both a CW and a phone station on that band.

We had a TH5DX on a 40' tower on the highest peak on the island, another 40' tower with a 10-meter monobander, a 25' tower with the six-meter beam, and two verticals; one for the low bands and one for the high bands. The location proved better than Seal in this respect too. Adequate physical separation existed between the stations to allow a virtual absence of interstation interference.

We kept one station running at all times. The second station probably ran 80% of the time, and the third station was used only occasionally for RTTY and VHF operation. During good openings, combined rates of over 500 contacts per hour were achieved on 28 MHz.

Towards the end of the operation, the extent of our success was becoming apparent. We could call CQ on an open band and have no takers. Only about once a minute, someone would come up and work on us. It really seemed that there was no-one left to work!

We covered 10 bands (from 1.8 to 50 MHz) and three modes, including RTTY. Several stations managed to catch us on six or more bands, and on three modes. Over 33,000 contacts were made, with about 40% being on CW and several hundred on RTTY.

QSL requests for ZS9Z/ZS1 are being handled by OH2BH.

Walvis Bay

Phase three of the operation consisted of an operation from Walvis Bay, emphasizing the modes and bands not normally very active from there. This was a formidable task, as the resident hams are active on the WARC bands, RTTY, CW, and 50 MHz.

Also, the Colvins had just been there. They appeared a little concerned when I told them about our operation in Pretoria before our departure, and their operation

netted 8,000 contacts, the second most ever from a single location.

Initial planning was that the Penguin operation would be followed directly by the Walvis Bay operation, but this had to be changed when my examination timetable was unexpectedly altered. I had to come back to write an examination on Boeing 747 flight planning, the last exam I needed to pass for the issue of an ATP on aeroplanes and helicopters.

We flew back from Luderitz after the Penguin operation. When the Beech 1900C of Namib Air landed at Luderitz to pick us up, I noticed with amusement that the captain was someone that I had taught to fly multi-engine aeroplanes, and Wayne immediately started soliciting a taxi for the 1200 km trip to Windhoek. The last of the real nice guys, Wayne is.

We spent a day in Pretoria before Martti, Pertti, and Wayne caught their flight back home. A few days later I wrote my exam before returning to Luderitz to collect the vehicle and continue to Walvis Bay. This trip had to be made alone, and took 24 hours due to a series of problems. This included being stuck in the desert without enough change to make a phone call!

As the crew would no longer be able to help me in Walvis Bay, I decided to invite Rad Handfield-Jones ZS6RAD (formerly ZD4AAB) to help me out. Being a VHF man, he would be able to help with the planned operation on these bands. Also, he is a keen CW operator, an important qualification in my book!

Walvis Bay is South African territory. The harbour is the main reason for the existence of the enclave. This harbour supports the majority of Namibian fishing fleet, and is also an important import and export route. The environment is extremely hostile, with loose sand making up the majority of the surface. This sand is blown up by the wind, often reducing visibility to virtually nothing. Also, the area is often fogged in during the morning. The climate is temperate, except when the wind blows off the Namib desert, when the temperature soars. The dunes outside the town are mobile, as the sand is transported in huge quantities by the desert wind. The town's inhabitants consist mainly of transport officials running the harbour, a limited South African military presence, and a number of pensioners, often from Namibia. There is also a salt mining operation, where sea water is evaporated mainly by wind action to supply the majority of South Africa's salt output.

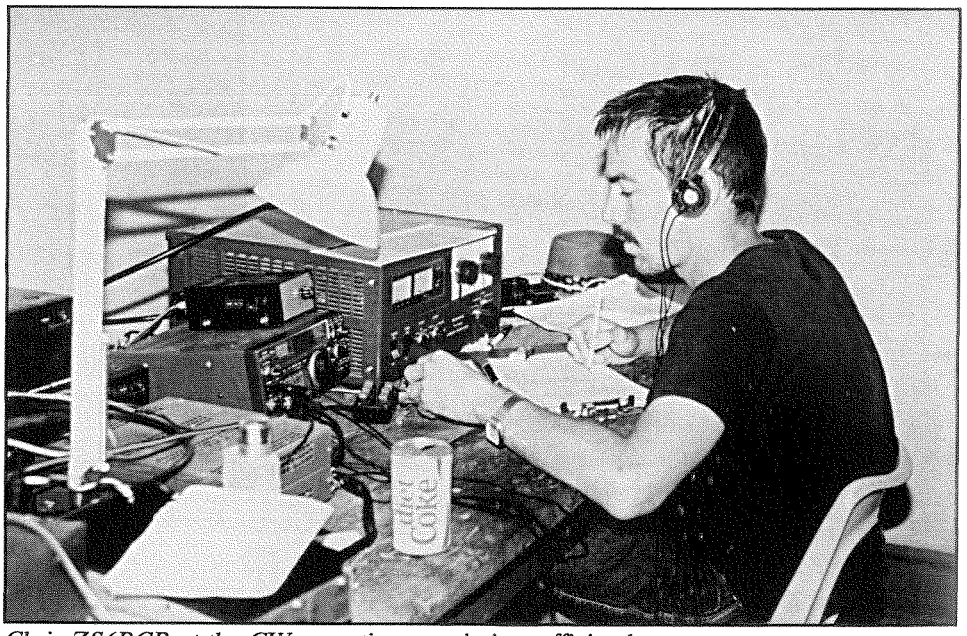
We initially had plans to operate from an outbuilding at the house of a friend of Bernie ZS4TX (also ZS9X), but at the last moment John Smith ZS9S (possibly better known as ZS6BNS) offered the use of his station. He had also hosted the Colvins during their one-month operation from there. John is himself a versatile phone/CW man, and operates regularly on the WARC bands, too.

John's TH7DX obviated the necessity of erecting our second tower and tribander, but we did erect several antennas: a 40 ' tower with a beam for 50 MHz and dipoles for the WARC bands, a Butternut HF2V vertical for the low bands, another vertical for the WARC bands, and two yagis for 144 MHz. These were used for meteor scatter (a contact to ZS6 on two meters was interrupted in the final stages by line noise at the ZS6 end) and moonbounce. W5UN was about 539 on two different occasions, and the QSL will probably supply him with his 100th country on this band, enabling him to claim the first two-meter DXCC. His 99th country was recently supplied by Bernie van der Walt ZS4TX operating from Lesotho as 7P8EN.

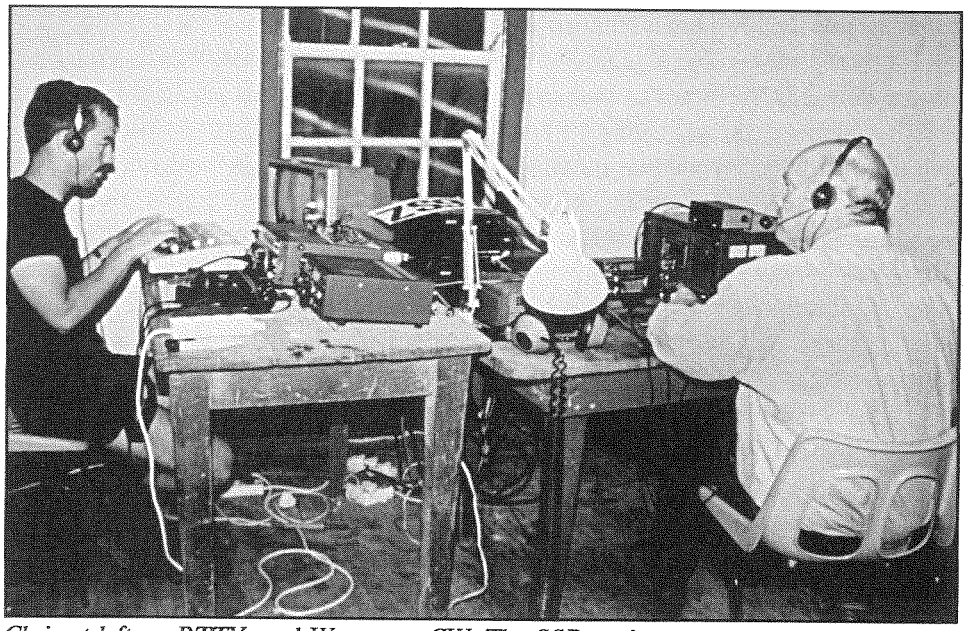
To avoid covering the same territory as the residents and the Colvins, we spent very little time on 15 and 20. Our attention was divided evenly between the low bands, RTTY, and 10-meter phone, where the US Novices had a good shot at working us. A lot of time was also spent on the WARC bands towards the end. An interesting point is that this was the first ZS6BCR operation where more phone than CW contacts were made. This was mainly due to Rad's persistent work on 28 MHz SSB. [A list of seventeen DX nets we did not check into, is available from the author for an SASE. State your color preference (available in black on white and grey on white).]

RTTY operation was interesting; the terminal smelt of seaweed, and the keys stuck regularly due to sand and salt water (our call sign was not really ZS9ZZZZZ).

The low bands were terrible, and 160



Chris ZS6BCR at the CW operating permission, efficiently logging with his right hand while sending with his left.



Chris at left on RTTY, and Wayne on CW. The SSB station was located in another building, to reduce mutual interference.

produced a total lack of results - until the last day. The very last opening, some three hours before leaving, produced a howling horde around 5 kHz above my frequency, and 25 stations were logged before the signals disappeared about 20 minutes after sunrise, In an attempt to work 160 as thoroughly as possible, a lot of prime low band time was consumed. This lead to dismal 80-meter results, and even the 40-meter results were hurt.

The only other great disappointment was the almost complete lack of good JA openings. Their sunrise openings were marred by extreme static at our end, and signals were weak due to poor conditions. A partial remedy was provided by one particularly productive JA run on the long path on twenty, but even that was only a few minutes long.

The difference between Walvis Bay and Penguin Island was really amazing in one respect; Penguin produced respectable rates at all times, even when people were supposed to be at work. Walvis Bay was different; it was obvious that the number of amateurs with health problems had dropped dramatically in only a matter of weeks!

QSLs for ZS9Z are being handled by ZS6BCR.

Also, Walvis Bay should now be one of the easiest countries in the world to work. When we left, John's station (ZS9S) sported, apart from the TH7DX, a Butternut HF2V with 160-meter kit, and a second 40' tower with a 50 MHz beam and a set of WARC band dipoles. I am also sending him a DX Edge, so if you don't work him, you are not trying!

Shooting fish in a barrel

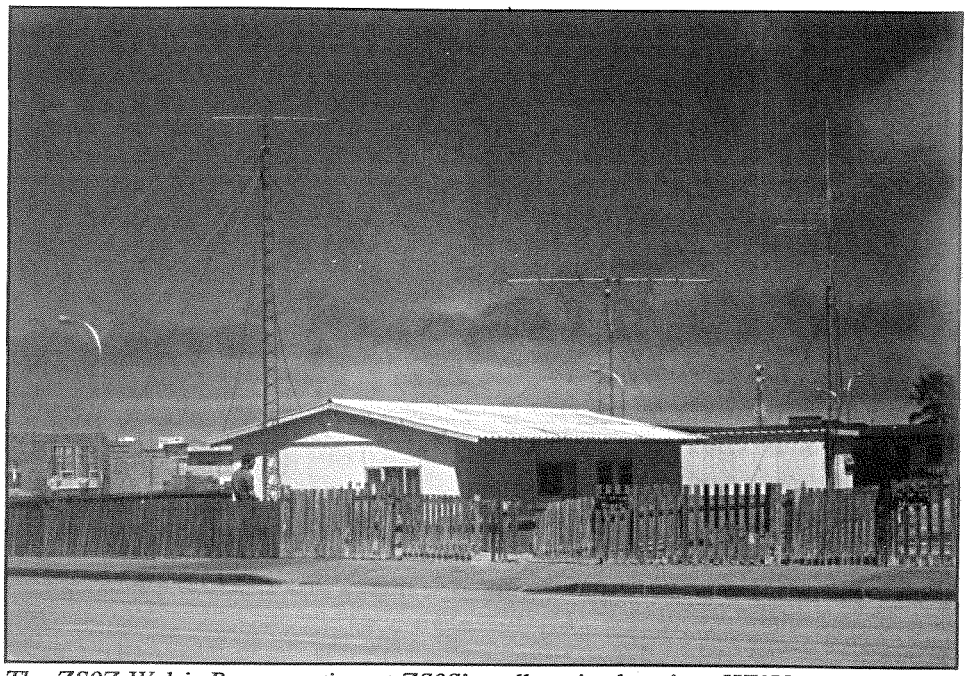
An interesting note is that I am now even more thoroughly convinced that there is no justification for DX nets; at ZS9Z, AA2U worked us on at least four bands, never using more than 4 watts output, and his contact on 28 MHz was made using 100 mW on SSB. We were also worked by W5ZPA, using a rock-bound transmitter built into a coffee cup and running a mighty 40 mW.

If they can do this, I have difficulty in understanding why people running 100 watts need help in working DX.

Questions

An amazing thing about handling pileups, big or small, from a DXpedition is the number of questions that are asked. When are you going to be on 160? What is the QSL information? Are you on the WARC bands? What is you shoe size? Who is the operator? What is your name (for the log)? Will you listen for my friend? What did you have for breakfast this morning? Am I louder than I was during our third contact on this band?

Believe it or not, answering a ques-



The ZS9Z Walvis Bay operation at ZS9S's well-equiped station: HF2V vertical on left, 6-meter and new-band dipoles on the tall tower, ZS9S's TH7DX, and 2 meters on the right.

tion does not resolve the matter, but invariably leads to another question being fired right back. Wayne folded double laughing at least twenty times after discovering a new trick; when you take a short break for some reason, leave the CW keyer on to broadcast all this information. Did it help? Well, if this helps any, the first station worked after one of these short breaks wanted to know when we would be on 160....

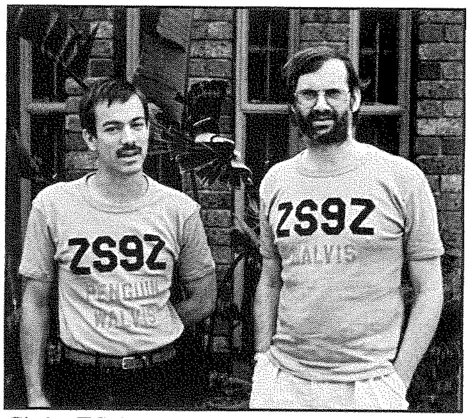
Where do we go next?

Now the inevitable question; would I do it again? Well, although right now I feel like one of the living dead, I guess the fact that my bank manager is very concerned about my well being all of a sudden alone is worth something (he does have a lot to lose now)!

An interesting point surfaced when having lunch with the Colvins, Hal Lund, his wife, and ZS6P in Pretoria a few days before departure. The Colvins mentioned that they were often asked about low bands, WARC bands, RTTY, and a myriad of other special interests. They carry a tribander and a forty-meter antenna, and mentioned that most DXpeditions are expected to carry all the other stuff, too, these days.

At Penguin, we had equipment going for three modes and ten bands, and at Walvis Bay we fielded eleven bands and three modes. Are the days of the suitcase DXpedition numbered? I get the impression that the suitcase/vertical type expedition has to be to a really rare location to make any dent in the demand at all.

As an afterthought, Walvis Bay and Luderitz are said to be some of the most corrosive atmospheres on earth. They are not kidding; my towers, trailer, and antennas corroded more in the few weeks on Penguin, in storage in Luderitz, and at Walvis Bay than the cumulative corrosion before that (most of my stuff is over a decade old). Also, I used a vacuum cleaner to suck several hundred grams of sand out of my linear amplifier when we got home!



Chris ZS6BCR and Rad ZS6RAD after the ZS9Z Walvis Bay operation.

Thanks is definitely due to several organizations and individuals for making it all possible; Hal Lund of Communicomp supplied equipment, generators, a vehicle, antennas, and a fax machine to conduct all of the negotiations necessary for securing permission and licenses. Sam Ford of Radio Accessories and Data Modems lent us his TH5DX.

Kosie du Buisson V51E went all the way to Luderitz to find out how to get a boat and someone to handle our admin at that end. The drive was over 2000 km both ways! Derek Moore V51DM hosted the contest crew, John Smith ZS9S generously put up with us at Walvis Bay. INDEXA supplied the 10-meter beams and Butternut the low-band antenna.

NCDXF is donating QSL cards for ZS9Z as well as logistical support for ZS9Z/ZS1, and finally Icom supplied the QSLs for V51Z and ZS9Z/ZS1, and loaned us transceivers for the Penguin operation.

And to you guys for working us and making it all worth while; thanks!