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Southern African Activity

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Southern African Activity

Namibia, Swaziland, and a Summary of Zone 38 Activity

by Chris Burger ZS6BCR

ZS3Z and 3DA0/ZS6BCR December 1988

The introduction of the new single-band DXCCs by the ARRL over the past year seems to have renewed interest in the bands concerned, to the extent that there has been a sudden upswing in requests for confirmation of DXpedition contacts on forty and ten meters. These include my 1984 operation from Botswana, and my 1985 and 1986 operations as ZS3Z.

Also, there has always been tremendous interest in low-band operation during these operations, but we were only able to comply in a very limited way, due to the fact that we did not have good portable low-band antennas.

Butternut responded in 1987 by donating an HF2V vertical with 160-meter kit for DXpedition use, but due to snags in the shipping arrangements I had made, the antenna only arrived here late in 1988.

At about the same time, Bernie van der Walt ZS4TX and I were recovering from injuries sustained during a VHF contest. We were trying to activate about 9 grid squares in 24 hours for the local boys. The helicopter we were using (a Hughes 500C) had an engine failure and I had to force-land in very rough terrain. We were put up by Hal Lund ZS6WB and his wife Dalene, and had lots of time

to talk. One of the subjects that kept cropping up was the low band antenna, lying unused in its original packing.

We decided that a DXpedition would not be a bad idea but, based on the experience from the previous ones, it would be difficult to find enough operators for a full-scale, all-band operation, and it was decided to concentrate on the bands where single-band DXCCs existed, to try and help the boys who were pursuing that goal. Also, we decided on the basis of previous operations that we would have to get the biggest signal on the air that one could feasibly do, as we were not only interested in giving the Big Guns a crack at us. We are about 7000 km from Europe, the closest concentration of amateurs, so anything less than a big signal restricts you to working mainly the super stations.

As my license in South West Africa (Namibia) was still current (I had spent two of the previous 12 months in the country), it looked like that was the place to go to. Also, an enquiry confirmed that Kosie du Buisson ZS3E would be prepared to let us use a property that he owns, including a generator, for the duration of the operation.

Logistics would be the major problem, as the distance by road is almost twice the straight-line distance, unless you are prepared to negotiate the direct route through Botswana, which can only

be done in a 4 x 4 vehicle, and which would take several days.

The effort would be worth it, though, because propagation is considerably easier from there into both Europe and the states than from the RSA border in the south, and slightly better into Japan.

The extent to which the propagation was superior was evident when I operated from central SWA in 1985, and worked the ARRL 10-meter contest using only a TH3 jr about 25' up. ZS6USA (better known as N4NW) told me most of the time that he could hear only me on the band, while I was working consistent piles of Europeans and Americans. He was using a KT34A on a high tower at the time. I was top DX station on CW in that contest, with only a few hours of operation using a barefoot radio.

The actual planning came together in about a week, and this included getting a tower to support the beam, getting a trailer to transport the tower, and finding equipment that would work on 160 meters. The latter was supplied by Hal ZS6WB, in the form of his backup radio, an IC751.

We eventually took the IC751, my old FT707 as standby, a Heath SB220, a TH5DX tribander, a Rohn BX56 to put it on, and the HF2V. We also took a 5-element beam and an IC505 with a 100W amplifier for 6-meter operation, and

intended taking a long Yagi and equipment for 144 MHz to try and work to ZS6 on meteor scatter, and possibly to give out a few QSOs to the moonbounce Big Guns. (This may sound insane, but we had worked W5UN from Botswana using a similar setup, and at that location we only had battery power available, which meant that the batteries became so

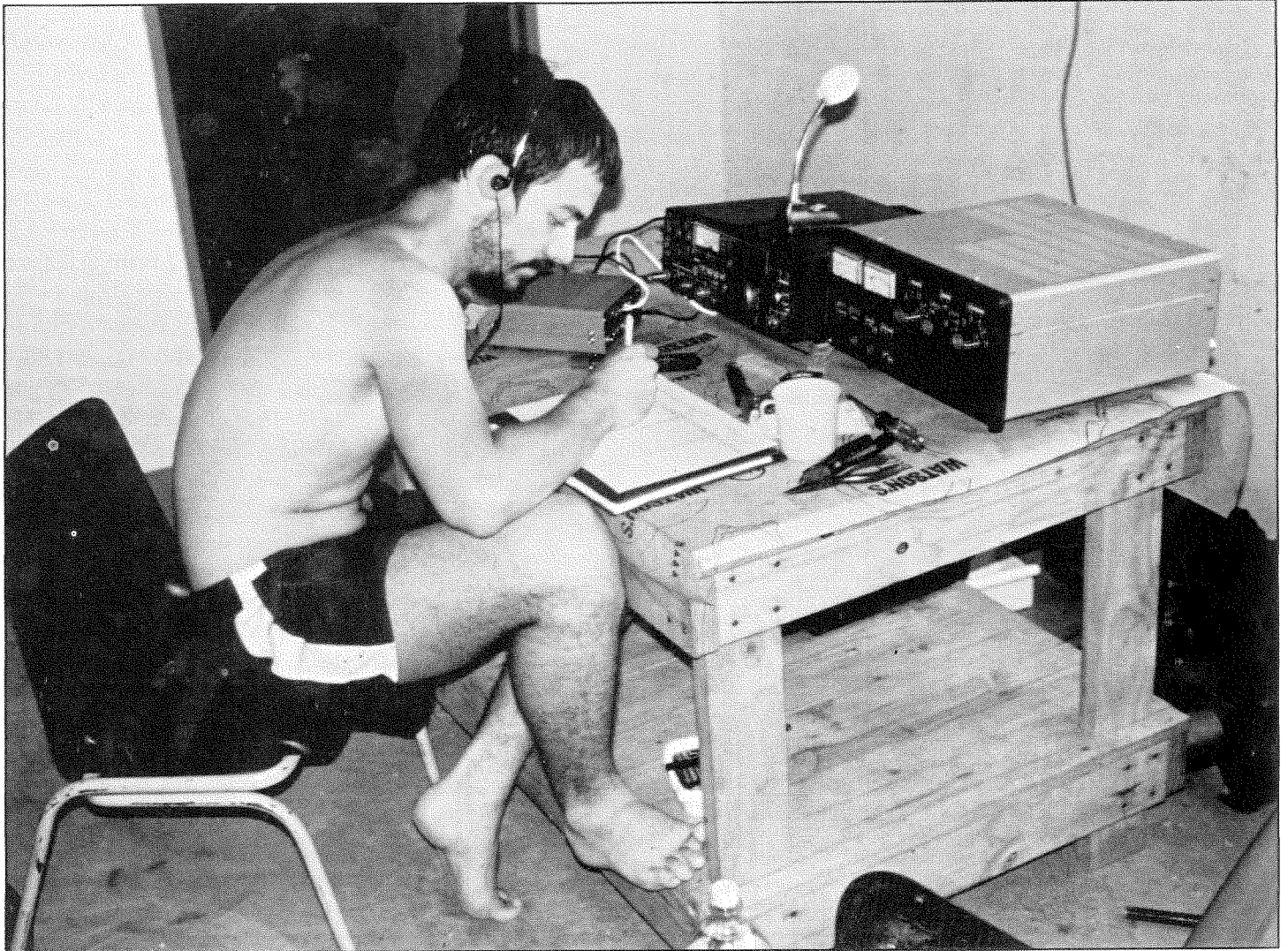
out to be our worst enemy. I spent about 40 hours on the road going there, because of endless trouble with the radiator and the cooling fan.

We set up the antennas, and had excellent results from the start on forty and ten meters. The lower bands were wiped out totally due to the most intense geomagnetic and solar activity in years.

major population centers.

Six meters was monitored around the clock, and ZS3E's nearby beacon remained on the air continuously, but only two Europeans were worked.

Most of our phone operating time was spent on 28 MHz in the US Novice band, where many stations mentioned that we were their first Africans. We also



Chris Burger operating CW as 3DA0/ZS6BCR, efficiently sending with his left hand while logging with his right.

flat that the PLL would unlock on key-down!)

Unfortunately, Bernie's 2-meter amplifier was taken out by lightning a few days before departure, leaving us with only 6-meter and HF equipment.

The only vehicle that was available was my 1969 model jalopy, and it turned

The DX Bulletin's propagation report mentioned that it was better during that period for low banders to catch some sleep than to struggle with the weak signals and high noise levels! We did spend a lot of time digging on the low bands, hurting the QSO totals, but forty was very productive every day into all the

operated some phone on forty, but on eighty we did not have enough bandwidth on the antenna, and on 160 there was little enough propagation time available to leave even the CW demand unfilled. The Butternut worked really well, with a ground plane consisting of a corrugated iron roof supplemented by some resonant

radials for 160 meters.

One problem that did surface with the phone pileups, was the use of partial calls in the pileup. This phenomenon has received a lot of exposure in DX publications recently, but it appears that the message has not yet reached the masses. We were continually trying to keep the piles down to less than five stations or so, and often switched off the amplifier when pileups became too large, with the result that we believe that most audible signals were answered within a few calls (at most). Even so, some find it necessary to holler only two letters of their call, necessitating a complete extra exchange of information to complete the contact.

I believe that the use of partial calls is only warranted if the operator specifically requests it, or if he/she appears to be unable to pick up anything from the pileup. If the operator is working a continuous stream of stations (especially if it is done at a decent rate), the chances of

getting your whole call picked up are the same as getting your partial call picked up, except that no competent operator will work a partial call if he can pick up a full call at the same time.

To help to reinforce this lesson, we consistently refused to work any partial calls. Some were amazed to hear us coming back to their first complete call after their partial calls had been ignored for several minutes. With some of the non-English speaking amateurs, it was impossible to explain our gripe, and I have subsequently had a letter published in *CQ Ham Radio* in Japan (courtesy of JA1ADN), explaining why partial calls should only be used as a last resort. (This technique has absolutely nothing to do with a rental QTH on a small island in the Caribbean.)

About 4000 QSOs were made (complete results are listed later), which was quite adequate considering that less than five contacts were made on twenty and

fifteen meters, which would have been the bands of choice for much of the day. Instead, time was spent working much lower rates on the more difficult bands. Our basic reasoning, which was that few DXers needed us for an "all-time" new one, but that many needed us on these bands, made the choice a logical one. (Even so, a large percentage of QSL requests indicated that it was an all-time new one.)

The return was much easier, with most of the bugs having been ironed out of the car. The biggest problem was the heat when driving through the desert. We were sunburnt even through the glass windows, in cloudy weather.

Thanks are due to Kosie du Buisson, ZS3E, whose property and generator were most handy, and to Hal Lund, ZS6WB, who supplied the HF radio.

While ZS3Z was running, my father was following up a number of leads I had obtained for Norbert Taerner ZS6ANL, who had operated from Swaziland a number of times. He eventually traced Nico Dekker, Norbert's customary host, who offered the use of a workshop at Manzini Bible School, where he was running a vocational training program. Nico would be away at the time that we intended operating, but would advise the caretaker that we would be coming. Licenses were organized by a series of letters and telexes, and the cooperation of the Swazi licensing authority deserves special mention. The license was delivered by express mail four days after the first telex message was sent.

Bernie was unavailable for the following week, so the Swaziland operation would be run with the assistance of a no-code VHF-only licensee. His main purpose would be to assist in setting up and maintaining the station and to work 6 meters. Once again, we had no 2-meter equipment worth mentioning, so it was decided to leave all that equipment at home. My assistant did not arrive as promised, so I had to go solo. I therefore decided to take only two-thirds of the Rohn, because that would be all that I

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could set up unassisted. The rest of the equipment was the same as in South West Africa, except that I had a borrowed FL2100Z amplifier and no antenna tuner this time. The 2100 was for 160-meter operation, with the SB220 being the primary amplifier for the high bands.

The trip was much shorter than the previous one and, except for the fact that the last half had to be driven in darkness with dense fog limiting visibility to under a hundred meters, was totally uneventful. The official-looking license document was very helpful in convincing the customs officials that the car and trailer full of radio equipment was not for illegal purposes!

The caretaker for the workshop complex, Skumbuza Mathisi, turned out to be extremely helpful, and with his help the antenna farm was again set up in half a day. The HF2V again found a place on the tin roof, and the TH5DX was slightly lower than at ZS3Z.

The FL2100Z sprung a nasty surprise on me, because at the first dawn morning, with a whole crowd waiting, I discovered that it would not load into the low impedance presented by an efficient short vertical on an efficient ground system! This left me without an amplifier on 160, and the radio cut back to 30 watts output due to the SWR. Because of the waiting crowd, I decided to call CQ anyway, and was surprised by working 17 North Americans in half as many minutes! Absorption was much lower than from ZS3, and eighty-meter results were also considerably better than from ZS3.

Once again, I spent most of my phone time on ten. The biggest problem was requests for repeating my call! The new format prefix for Swaziland is confusing, and most people still seem to expect the operator's home call at the start. The memory keyer helped a bit on CW, but on phone I could do nothing but repeat the callsign a few times, and even then some QSL cards contained weird versions of the call. I made an honest attempt to catch all the major openings every day. This means US sunset on low



Chris ZS6BCR (left) and Bernie ZS4TX packed and ready to leave for Namibia, with Bernie's station in the background.

bands, my sunrise on low bands, shortly after that to Japan on the high bands, mid-day to Europe on the high bands, afternoon on ten to the states, long path on forty to the Suffering Sixes and Sevens, then my sunrise on the low bands, Japan sunrise, and the midnight conditions to Europe on the low bands. This never allowed more than two hours of uninterrupted sleep, and plans to extend the operation by a day were shelved when I realized that I was getting so irritable that it was a matter of time before I would tell someone his fortune on the air. I went QRT a few times when persistent partial-callers became a bit too

much for my fragile temperament!

Apart from the low-band results, the six-meter operation is worth mentioning. There were no ionospheric openings, but two ZSs were worked by meteor scatter, giving each of them a new country. No previous operation is known to have been conducted from Swaziland on six meters.

A pleasant surprise was a visit from Franz Taschl, ex-ZS5MY (5BWAZ, 5BDXCC, and 5BWAS), who was then waiting for his call after moving to Swaziland permanently some weeks before. He had heard from the telecomms department that I would be operating from "some religious outfit," and spent a lot of

energy tracking me down. He eventually overheard an explanation of where I was that I was giving to a friend on the air, and drove all the way out to see me. He is now 3DA0BK, and is planning to start all over with the 5-band awards. At this time, he is most active on ten, and plans to move down to the other bands once a new QTH offers better opportunity to get

an antenna farm running.

On the way home, I dropped in on Fred Maxwell 3DA0AH (ex-3D6AN and 3DA0AN), who related an amusing tale of how he had been hearing about some one named Chris that would be coming to Swaziland for weeks, and also how many stations referred to my presence while I was there, but that he never

heard me on the air. When he saw me at his front door, he greeted me with "Chris, I presume?", even though we had never met or spoken on the air!

The return trip was uneventful, and a day's rest followed before I started working on 3 January, to try and pay the expenses.

Thanks to Nico Dekker and his wife Lydia, and to Skumbuza and Mr. Shandu, the principal of Manzini Bible School. Also to the licensing authority, and Hal Lund for again loaning equipment.

Final results, after four days of operation from each location, were as follows:

Band:	28	7	3.5	1.8	Total
ZS3Z	2407	1538	198	12	4162
3DA0/					
ZS6BCR	1105	752	344	34	2240
Total	3512	2290	542	46	6402

QSLing started on my return, and over 2000 direct requests were honoured in the first three months. QSLs were donated by the NCDXF. Their financial assistance and the Butternut donation certainly helped to ease the financial burden.

The whole trip involved about 8000 km of driving, which appears to be about as much as my car could handle; it needed an engine overhaul after the trip!

Other activity in the zone

Bernie and I are planning some similar action in other countries in CQ Zone 38. Lesotho is high on the list of priorities. Bernie already has a call sign there, and other possibilities are Botswana and Zimbabwe. Some feedback on the demand for these countries would be appreciated, especially from the low banders. If you need anything in Zone 38 on any band, please let me know, so we can plan accordingly.

We were gratified to have been able to give five of the top ten on the 160-meter DXCC a "new one" on this trip. The biggest problem at this stage is the lack of a radio that covers 160 meters, something that will be difficult to overcome on our restrictive budget. (Bernie is a trainee technician, and I am a university student.)

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There is considerable action from most of the countries in the zone, but some of these are restricted to phone only. 7P8DP and 7P8DX are making Lesotho available on a regular basis, and the Voice of America installation in Selebi-Phikwe often attracts personnel who provide activity from Botswana. Several ZS3s are rather active (ZS3s AT, BI, E, GB, HL and others), with a limited amount of CW activity. Low-band operation is restricted to a handful, with 3DA0AH, 7P8DX, and a few others providing the goods regularly on 80 and 75 meters. Very little activity exists on 160 meters, with the exception of a handful of South Africans, notably ZS4PB, ZS5LB, and ZS5BK.

With the appearance of C9MKT on the bands, Mozambique is looking better than ever for an operation, but our recent attempts at getting a license have drawn a blank. Verbal permission is not impossible to get, but they are unwilling to commit themselves in writing. Some of the Portuguese-speaking locals have offered to run a training program (Portuguese being the language most commonly used in this former colony). The government has not yet responded.

Walvis Bay is at present looking like a good possibility, and several ZSs are working on documentation to submit to the DXAC. Walvis Bay (Walvis is the Afrikaans word for whale) is a harbour along the coast of South West Africa, but is part of the Cape Province of the Republic of South Africa. It was in fact part of the Cape of Good Hope (then a British colony), even before SWA was annexed by Germany before the first world war. It thus predates both South West Africa (now Namibia) and Bechaunaland (now Botswana) as an administrative entity. It has remained apart from SWA ever since, and remains separate from an independent Namibia. According to the newly-rewritten DXCC criteria, it only needs 75 miles of separation from the rest of the RSA, and the actual separation is about five times that.

Bernie and I are planning something

major for December and January, but this will be subject to official word from the ARRL on the DXCC status of the enclave. At present, cards from ZS1IS (who is a resident of Walvis Bay and operated from Windhoek as ZS3C before his retirement) are not accepted for any country by the DXCC desk. Ian can probably be regarded as the only land-based maritime mobile station in the world, for DXCC purposes anyway.

Marion Island is seeing its first legal operation in a decade (ZR6AOJ operated as ZS2MI some years back, but did not obtain prior permission), and the next few months promise to see this one drop well down the Wanted Countries survey. Peter Sykora (his home call is ZS6PT) is a technician on the weather station, and has NCDXF-provided equipment (two radios and a linear amplifier) for the HF bands. The rhombic antennas pointing north are being used now, but if necessary another antenna can be shipped down to him on the August supply ship.

Peter has been a consistent participant in the CQWW DX and WPX Phone contests for the past few years (check the multi-single or QRP results), so he is no stranger to the pileups. He is primarily a phone man, but promised that he would provide some CW action. It appears that Slim borrowed his call a few times, giving several CW men a supposed 'new one,' before Peter himself ever fired up on CW. However, Peter has since been regularly active on CW, and presumably the practice will help to increase his speed as well.

As this is being written (early June), the supply ship has left and the base is being prepared for the long winter. The first month produced about 1500 contacts, and Peter is becoming more active as the task of setting up the weather station for the winter approaches completion. His operation is subject to a regular HF commercial sked, which has hampered his operation somewhat.

Considerable operation is taking place from ZS3 by members of the

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UNTAG force monitoring the process of running an election. It is amusing to hear some of the European members of this force trying the low bands, and suddenly realizing that it is almost impossible to be heard in Europe, even on forty, and that there is absolutely nothing closer to work!

Contest activity from this area is limited to about a dozen regular participants, with a few more operators taking the opportunity that major contests provide for increasing their all-time totals. Phone DX contesters include ZS1CT (club station), ZS3HL, ZS5K (formerly ZS6BPL), ZS6A00, and ZS6CDJ, while ZS6BRZ and ZS6P often run DXpeditions to neighbouring countries for the major contests. On CW, serious DX contest activity is provided by barely a handful, these including ZS1CT, ZS6BCR, and ZS6BSZ. A great deterrent to serious contesting is the disadvantage we have against the stations further north, particularly those on the equator and those near Europe. A station with a good monobander can expect about 14 hours (1430 - 0430Z in ZS6) of useable propagation on forty in the contest season, while a similarly-equipped station in EA9 or CT3 would have a full 24 hours, and would get the same 3 point QSO advantage, and compete for the

same continental records and trophies. N4NW, who operated for some time as ZS6USA from Pretoria, maintains that Zone 38 has by far the worst propagation he has seen anywhere in the world. DX-peditions also seldom beam this way (it isn't worth it), so most piles are cracked "off the back of the beam."

Added to this, there is the legal power limit: 150 watts DC input to the final stage, and an SSB-only PEP output limit of 400 watts. Furthermore, it is not only illegal to operate equipment above this power level, but also to own equipment capable of doing so. The result is

There are only four stations with 5BDXCC in Southern Africa (ZS5LB, ZS5BK, ZS6BCR, and ZS5MY). Some others have completed the upper four bands, but the 80-meter QSOs elude the majority. Considerable experimentation seems to indicate that vertical antennas are the only practical way of putting out a useable signal on the low bands, and successful low banders are generally using some kind of vertical antenna (sloping or otherwise.) Exceptions are Pieter ZS4PB, who has a pair of 120' towers on which he can hang an assortment of wire antennas, and Dave

amateur radio station.

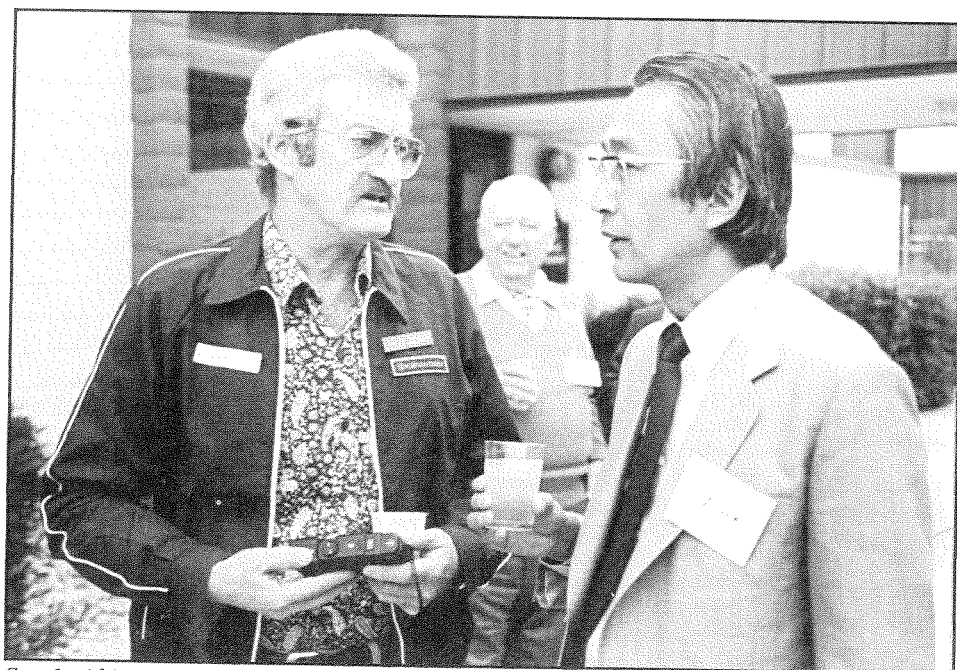
An annual extract of the DXCC listing from QST and regular write-ups on the awards program have been published in an attempt to stir up some interest in DXCC, but current ZS membership of DXCC stands at about 20 calls. (This compares miserably with the seventy-odd ZS members in the 1950s). About half a dozen of these are on the Honor Roll.

Probably the biggest obstacle to the increase of HF activity in the area is the decline of the South African currency unit, the Rand. When I first bought dollars (around 1974), I could get about \$1.20 per Rand. The current exchange rate is about R1.00 = \$0.35. The salaries in Rand are roughly the same as a similar job would get in dollars in the US, and the buying power of a certain amount is roughly the same as the same number of dollars in the US, except for imported equipment. A simple used radio like a used FT101ZD would fetch close to R2000, and to import a new radio would cost roughly five times that. That is roughly equivalent to paying \$10000 for an IC761 in the states. Antennas are also very expensive, so the TH3/TA33 family are standard equipment for those who choose not to home brew. To my knowledge, there are less than ten 7-MHz beams in operation in the area. Would you lay out \$2,000 for a loaded two-element beam?

Conclusion

I always enjoy reading about operating from a different part of the world; each location has its ups and downs. Most people seem to think their location has only downs, but it is always interesting to compare notes.

Maybe, if you find yourself with nothing to do, you can make use of the excellent exchange rate (from that side!) and come and see for yourself! Reciprocal licensing is easy, and though the legendary good weather cannot be guaranteed, an interesting time can!



South African amateur ZS6AF discusses DX topics with DX Hall of Famer JA1BK, at the Visalia International DX Convention.

that big monobanders are required to hold down a frequency in a contest, and most ZS amateurs are confined to urban properties. This is why a ZS is normally the "weak station vainly trying to hold down a frequency" in a contest! Consequently, few operators ever learn to operate for long hours or at high rates, and the contest participation suffers accordingly.

Outside contests, there is a limited amount of low band activity. We left a DX Edge with ZS3E after our most recent ZS3Z operation, and Kosie has promised more regular low-band activity.

ZS6DN, who runs a research station near Pretoria, who has an assortment of Rhombics on the short and long paths into Europe and the US, all of them optimised for 7 MHz. These antennas also put out a fair signal on the low bands. Dave's brother Roy (ZS6QU), who lives about 60 km further south, often "borrows" the rhombics by making use of a 6-meter patch to trigger the CW transmitter. He normally signs ZS6DN/QU. Unfortunately, Dave will not allow contest operation from the station, as he feels that the station is professionally funded and is therefore not strictly an