

# **“Low Band from Mozambique” Almost!**

By Tom Harrell N4XP

## ***How It All Started***

In December 2012 I traveled to ZS land to visit long-time friends ZS6P, ZS6EZ and ZS6RI whom I have known for many years. Having previously met Chris ZS6RI and Chris ZS6EZ it would be a renewal of those friendships and at the same time meeting Tjerk ZS6P in person for the first time. We had all first met on the air in the mid 80's while N4NW was operating all over Africa. As 9Q5NW, TN4NW, 7P8NW and numerous other much in demand African entities, N4NW became quite well known and we all have continued that relationship to this day. ZS6RI and I also operated together from Penrhyn, North Cook as ZK1XXP in 1997 so this would be a nice reunion.

My visit started off with what was expected to be a rather lengthy airplane ride. Needless to say that was an understatement! I have flown several long haul flights of 14 hours or so but this flight of almost 17 hours was most difficult. You would think an additional two or three hours would not have been a big deal but it was most certainly an eye opener. Delta flies daily non-stop from Atlanta and the plane was totally full.

My visit was planned with two goals in mind. The first was to spend as much time as possible with my three long-time friends and secondly travel into the bush with Tjerk to an African game preserve in the North of the country adjunct to the Botswana border. While staying with Tjerk and his XYL Sylvia, the ten days on the ground also gave us plenty of time to see the area in and around Pretoria and Johannesburg or better known as “Joburg” by the locals.

I also had the pleasure of attending hamfest on one of the Saturdays. In addition to experiencing this type of gathering from another perspective I had the pleasure of meeting a number of ZS DXers that included several I had spoken with from several DX locations I had operated from in the past. Also Chris ZS6EZ operated a flying school and treated me to an overflight of the area. Along with the time at the game preserve, these events proved to be highpoints of the trip. Chris ZS6EZ also spent a day showing me a part of South African history one normally might not see as a “normal” tourist, that being the period South Africa was first settled.

That turned out to be a most enjoyable day learning the country's past and what they went through from the beginning as the settlers traveled from Europe seeking new horizons. As my visit was coming to a close I spent a day with Chris, ZS6RI “tagging” along as he went about his business doing those normal things we all do during the course of a day. That also was most enjoyable as it gave me a true perspective on the daily life in this large South African city. This was also the day of my departure with Chris taking me to the airport

for my return to Atlanta. Of the entire trip this return flight was the only part that was unenjoyable starting with check in and then moving to the gate area. As it was international you must be there two hours early and then wait. The process was not smooth and the loading of the aircraft was most trying and total confusion. As the inbound flight was this was full flight also and tempers started to wear thin as time went by. Finally we boarded and as we were getting settled an announcement was made stating “we have good news and we have bad news”! When that happened it went very quiet very quickly. We were then told we were overloaded and would “taxi up and down the taxi way to burn fuel to reduce the load. We taxied for about thirty minutes and then came to an abrupt stop – but not at the gate. This time we were told “that did not do the trick and we were returning to the gate to remove freight”. So once that took place I guess we were ok and after a total of almost three hours on the aircraft we departed for that nice seventeen hour flight home. Yes that makes twenty hours total time in a very uncomfortable seat.....! Fortunately the flight was uneventful and we finally arrived safely back in Atlanta.

## ***And How C82DX Came To Be***

During the first week we played tourist and not much radio was discussed. As time passed and we spent more time together (Tjerk ZS6P, Chris ZS6EZ, Chris ZS6RI and myself) we found our conversations always seemed to gravitate to radio, specifically DXing and DXpeditions. It was not long before I was thinking perhaps it was possible to assemble a team and operate from somewhere in Africa. I expressed my thoughts to the group and they all without hesitation said “yes”. At that point we looked at each other and said the same thing all at once, “where”! That led to further discussion on that subject as to where we could go that would generate enough interest to make it worthwhile.

We all knew most of Africa had seen a fair amount of activity over the years. At that point I asked the group where has low band been successful and where has it not? Most all the entities within a reasonable driving distance from Joburg had been well represented with the exception of C9. Once we started to research low band activity from Mozambique we discovered it was identified as number 34 world-wide and had not seen a serious large operation for some time. Mozambique, less than a day's drive from “Joburg”, would allow easy access and staging for a team and equipment.

It did not take long for the four of us to agree Mozambique would be an excellent location to stage an all out low band effort. Because this planning session was taking place in December which is the summer season South of the Equator we all agreed a period later

in 2013 would be best, not just for low band propagation but for arranging a site when the tourist season was not in full swing. Large strange antennas do not usually set well in areas where people are traveling to enjoy a holiday. We wanted to make sure we could erect efficient antennas and at the same time “blend in as much possible.

So with a period in the third quarter of 2013 established we then moved on to where in Mozambique. Relying on my South African friends I asked for their take on a location keeping in mind it should be no more than a day’s drive from Joburg, adjacent to water and have a fixed AC power source. Tjerk suggested several locations, Bilene and Xai-Xai, each on the Indian Ocean and in Southern Mozambique three hours North of Maputo, the capital and a days drive from Joburg. Again our concerns for easy access came into play and it was decided the operation would not go any further North than central Mozambique and because of the need to be as close to water as possible, we would require a beach front site. In addition to these considerations we had heard that civil unrest and fighting was taking place in the Northern part of the country so we felt it best to stay far South.

#### ***A Location is Selected and The Team is Organized***

Tjerk had visited both locations and advised Bilene is South of Xai-Xai and not directly on the ocean but on a lagoon while Xai-Xai directly fronts the Indian Ocean. We decided on Xai-Xai because its beach front would allow our operation the most effectiveness. Soon we were researching Xai-Xai, a main stream holiday site during the period the Portuguese were in Mozambique. It was not long before Tjerk located a beach access compound of five bungalows at a reasonable cost.

By now we were into early 2013 and it was Spring in the Northern hemisphere. It was time to start planning in earnest two of the most important aspects of a DXpedition - equipment and team members. Past experiences told me an operation of this magnitude really takes strong management and that it would push the abilities of a single leader. I approached my long-time friend Don N1DG about coming along and also serving as a co-leader. Don and I have traveled and worked together before, most recently from Midway as K4M and Wake Island KH9 and our way of thinking and abilities were in sync. Don quickly said yes and the race was on!

Past experience taught both Don and I that logistics must be a priority. Luckily we had the best of both worlds, with team members on site and able to do logistics and other important taskings often difficult from a distance. We asked Tjerk to lead the “African contingent” while Don and I marched forward with team formulation and equipment sponsors. Tjerk was given the general requirements of importing and exporting the equipment that would be shipped from the US and back again plus from South Africa to

Mozambique and back to Joburg; the lodging both in Joburg and Zai-Xai, food requirements and team travel arrangements to and from South Africa and to and from Xai-Xai. Much of the required supplies and materials such as food and equipment could be locally procured. We also knew there would be a requirement for a medical officer and that Chris ZS6RI, an emergency medical service paramedic with special training for remote locations could handle those needs.

It was now late Spring and feelers were out for operators and sponsors. We also decided to send Tjerk and both Chrises to Xai-Xai to recon the site and area to learn exactly what we would be facing with every aspect of the operation. For three days they worked with the site owner and traveled around Xai-Xai. They finalized all aspects of the operation such as what food was available and before their departure they settled with the site owner for everything from placement of antennas to lodging preparations to eating arrangements and supplies. This trip proved to be invaluable and paid huge dividends in the overall adjudication of the DXpedition. Just knowing early on who would be sleeping where the first night to how food would be obtained, to station layout and antenna placement proved a real time saver. Upon their return we were able to plan and manage the operation with real time data. Most important we learned from this trip that we would need to bring as much food supplies as possible as there was very little available in Xai-Xai.

While the ZS boys were visiting Xai-Xai Don started lining up sponsors and soon had commitments from Icom for radios, Array Solutions for its new Shared Apex Loop Array listening antenna, SteppIR for verticals, KIO Technology for a Hexagonal beam, Pixal for beverages, Heil Sound for headsets, STAT for medical assistance and a low band listening loop from W4NL. We also were able to gather financial support from the Southeast DX Club, West Virginia DX Association, The German DX Foundation, The Northern California DX Club, SEDCO, Great Southern DX Association and W3YY. We also received equipment support from W4NL, G3LZQ, and Writelog. As equipment was being committed we also started to receive individual support from many DXers.

While Don worked on equipment and shipping issues, I started to build the team. Charlie NF4A, Wey K8EAB, Rusty W6OAT and Ray N9JA came on board right away. As in all DXpeditions operators join and for many reasons soon drop out and this was no different. One of the key players, Chris ZS6EZ, dropped out for work reasons. Chris would still assist us with preparations in South Africa and provide his trailer and the Battle Creek Special positioned in Africa that was in his possession. It was not long before additional ops joined but then dropped out but we continued to recruit. Soon Tad WF4W, Ken JN1THL, Rob K6RB, Bill N4NX and finally Kevin K6TD and Neil VA7DX joined. By mid-June we had completed the team with fourteen operators. The quality of the

team members was exceptional with most having been on numerous major operations. One additional individual would also join us, Ian Anderson, a non-ham and Chris ZS6RI's partner. Ian, a professional photographer and also a paramedic with good cooking skills, would assist the team with food preparation. Little did we know at the time that Ian would quickly turn out to be an excellent chef providing the team with great food over the entire time we were on the DXpedition. He would also drive one of the three vehicles providing transportation.

As the departure date moved closer and closer team members prepared themselves for travel by obtaining all required travel documents and Visas and completing medical requirements. Chris ZS6IR, while serving as the team medical officer, saw to it that all team members were properly monitored and prepared for the trip. Most importantly there was a major concern for Malaria and it was necessary that the entire team take the necessary steps to prevent contraction of this horrible disease. In order to keep an accurate record of all requirements and activities we enlisted the assistance of Cindy NN9JA, Ray's XYL, to be the keeper of all records and make sure every requirement dealing with "official" information was up-to-date and easily accessible. Cindy managed to keep this "herd of cats" in a straight line for us!

While all these activities were taking place Tjerk overhauled the Battle Creek Special and Titanix vertical to make sure they were in operating condition. Chris ZS6EZ offered the use of his specially built trailer to the operation but it needed overhauling. Luckily Tjerk took that task on also. Since low band was the primary intent these two antennas had to be fully functional and working as designed and the trailer was needed to carry the long antennas.

### ***Equipment Arrives in South Africa and The Team Starts to Arrive***

As August passed Don prepared the US equipment shipment and Tjerk worked on the paperwork. In mid-September the equipment was sent directly to the freight forwarders location adjacent to Kennedy Airport and staged there while it awaited transport on a Delta flight to Joburg. The shipment was scheduled on a given date but we soon learned how freight forwarding works.....it goes when cargo space is available. Instead of one day, it took our equipment almost a week to arrive in Joburg because of the bumping of the manifest. However, we had allowed sufficient flexibility and it arrived in time to be delivered to Tjerk's QTH. All of a sudden team members would soon be departing their homes and heading for Joburg. Were we ready? We were not sure but it was getting ready to happen – ready or not!

I wanted to arrive early to assist Tjerk with any last minute preparations and departed Atlanta on Monday October 7<sup>th</sup> and arrived the next evening at 6PM local.

On Wednesday K8EAB and N4NX arrived with the remainder of the team arriving throughout the rest of the week. Most traveled without incident except for K8EAB and N4NX who experienced a delayed departure from Atlanta of seven hours. This delay made their travel very difficult but they did finally arrive safely. Tjerk had arranged for airport pickup and everyone made it to the guest house safely albeit totally exhausted.

On Friday the schedule was personal recovery with a nice dinner that evening. Since a full day was planned on Saturday with a team strategy meeting and final equipment packing everyone went QRT early.

Several team functions were scheduled for Saturday plus the departure of the advance team. One vehicle, a Land Rover, was set to leave just after noon at the conclusion of the team meeting. The meeting covered all aspects of the operation, i.e., team assignments, operating tactics, propagation, operating schedules, and most anything to do with the operation. The propagation session was given by Chris ZS6EZ who is highly skilled in low band operation especially from South Africa.

At the conclusion of the meeting the advance team departed in the Land Rover. We had also packed the Land Rover with equipment plus a freezer with all our frozen foods in an effort to reduce the load for the remainder of the team scheduled to depart the next morning at 0430 from Tjerk's QTH. Because the Land Rover was extremely slow we expected to catch the advance team by noon Sunday. Although we were not aware of it, these plans were about to go very bad!

### ***Finally, The Advance Team Departs***

The advanced team departed about 1400 local as we continued to pack the trailers and other vehicles at Tjerk's QTH. Before we knew it Chris received a call from Ian who was driving the Land Rover advising him the vehicle had broken down about 50 miles North of Pretoria at Middleburg and they were on the side of the road! Tjerk, Don and I immediately went into "what now" mode without realizing this was just the beginning of one crisis after another.



**Checking the load**

While Don, Tjerk and I huddled on what to do, Chris began searching for a tow and where to take it. Not knowing the mechanical issue with the Land Rover Chris offered his vehicle if needed for the trip if the Land Rover was determined to be deadlined. A tow, storage and lodging was arranged in Middleburg. It was also decided we would leave the Land Rover and use Chris's vehicle and pick them up as we headed North. Little did we know our next crisis would soon unfold!

We enjoyed a team dinner at the guest house where most of the team was staying and by 2100 hours everyone had retired for the evening. Since Don and I were staying at Tjerk's QTH we also returned there and settled down for the evening. I was reading about 2230 hours when Tjerk called out in a panic "I cannot find my passport"! This caught my immediate attention as you can go nowhere without a passport in this day and age. By 2300 hours Tjerk had determined his passport was not at his QTH but had been left at the vehicle hire office that morning when he picked up the hire van. He quickly went to the telephone and located the office manager who said he did not recall seeing it in the office and that Tjerk must have it. After rather serious discussion the manager agreed to meet Tjerk at the office in the morning at 0700 hours. At that point we again went into crisis mode to modify our departure plans. It was decided the team would meet and depart as planned while Tjerk remained behind until 0700 when he would meet the manager at the office. Not exactly what we wanted to do but what had to happen!

### ***Now The Full Team Departs***

Little did we know the expected ten hour drive with arrival before the sun went down would turn into a sixteen hour drive from hell when we met the next morning at 0400 local at Tjerk's QTH! It did not take long to hook up the trailers, finalize the packing and depart - but without Tjerk at 0500 hours. Our caravan was now one vehicle short at two vehicles with Chris's station wagon and the hired van with the remainder of the team. Our initial stop would be to pick up the advanced team who were waiting at Middleburg. The travel to Middleburg went quickly and we soon arrived at the lodging facility where we had a quick breakfast and hit the road. It was now just before 0800 when we heard from Tjerk that he had retrieved his passport, which was in fact at the vehicle hire office, and that he was now heading North. We all gave a sigh of relief... We then made plans to rendezvous with Tjerk North of Middleburg on the motorway.

After meeting up with Tjerk we headed North for the border, some six plus hours away. The drive was pleasant with the beautiful South African countryside to include orchards and vineyards all around us. We also stopped for fresh produce and vegetables and for the most part enjoyed the scenery.

As we neared the border point of South Africa and Mozambique we started to notice not only the population along the roadside increase but also the lay of the land. Then as we entered the border zone people were everywhere selling items and offering to exchange money and just about anything else that allowed them to get in your face. When leaving South Africa one must stop and have their passport stamped. If one is taking items out of the country for personal use with plans to bring them back, they must complete specific paper work. Tjerk had already prepared these documents so we were ready for this.

We were a strange looking bunch in three vehicles, two with trailers filled with strange looking stuff and we really did feel ill at ease. After parking at the South African border office, it was decided we would go in groups for the paperwork while the others stood by the vehicles to make sure no one took anything. As the last of the team returned I noticed Tjerk had not returned and I went back into the building. Tjerk was arguing with one of the agents in regard to our taking the equipment out of the country but wanting to bring it back with us when we returned in two weeks. The agent was telling Tjerk they were out of the specific form needed to declare our equipment but not to worry and to proceed on without it. Tjerk was very concerned that without the necessary Customs clearance they would not let us back in the country when we did return. As it turned out Tjerk was right - which you will hear about later.

The border was configured in such a way that the South Africa administration building was several hundred yards before the Mozambique border building and this separation created, in effect, a dead zone. As we entered this "dead zone" we immediately noticed more large groups of people just "hanging around" and also heavy police and military presence in all directions. When we reached the parking area we again made sure someone was standing by the vehicles and equipment. We just did not have good feelings about this overall situation and needed to get it over with as fast as possible. Soon everyone had completed their paperwork and we were ready to proceed. Because Tjerk had completed all the necessary paperwork in advance, it was accepted without hesitation and we were waved on. Finally we were in Mozambique!

As we departed the border station we immediately noticed the countryside was now entirely different - no trees, orchards, vineyards or anything else of consequence. The land as far as one could see was plain, barren and parched. Structures were few and far between and in poor condition and the road side was heavy with the local population selling everything from charcoal to nuts to automobile parts to even road kill! As we proceeded North we saw very few vehicles on the highway or in any of the settlements and animals were being used for transportation. As we left the border area we also heard from one of the team members, Neil VA7DX who lives in Joburg. Because

Neil could not stay the full time due to work constraints he had flown to Maputo with the intent of driving to Xai-Xai and being there when we arrived. He had safely arrived in Xai-Xai and was awaiting our arrival.

The three hours to Maputo was somewhat uneventful with people alongside the motorway still selling everything you could think of to include stacks of fire wood, furniture, and animals tied to trees. We entered the outskirts of Maputo as the sun started to set and noticed the local population starting to increase in every direction. Soon we saw signs for the airport just off the motorway. Just as we passed it off to the right we were forced to come to an abrupt stop in a line of traffic.



**Local Maputo Traffic**

As we inched forward the reason became very evident – we were approaching some type of road block. Once we came to the “road block” and we were flagged to stop we realized it was a check point with police officers and much highly visual heavy armament. I’ve seen Kalashnikovs before but this time from an angle I’ve not experienced as they looked us over very thoroughly before waving us on. I am sure they had no idea what we were all about with three large vehicles pulling trailers loaded with strange looking stuff! But we departed that scene very quickly with the feeling we needed to get away as fast as we could. Little did we know that situation was only the beginning. By now it was dark and had started to rain. This was exactly what we did not want to happen. Driving in unfamiliar territory in a strange country and in bad weather was not good. At one point we were stopped again, this time by the military. They were not friendly and wanted to see Chris’s driver’s license but he could not find it. After some serious discussion it appeared they were going to “arrest” Chris when Tjerk approached them and tried to mediate by telling them why and where we were going. That did not seem to help and they appeared to be getting agitated and we were getting very worried. Then we noticed while Tjerk was talking to them their actions changed and they walked away. Tjerk returned to the vehicles and said we could go. It seems the equivalent of 9 US dollars was all it took, in other words, money talks.....!

The drive from Maputo was on a two lane highway in a very poor state of repair. The closer we moved towards Xai-Xai the worse the road conditions became. As we entered the outskirts we crossed over an iron bridge that had previously been washed away with temporary repairs having been made but the repairs were poorly done and the conditions caused us to slow to a crawl. As we entered Xai-Xai we immediately noticed all the structures were in extremely poor condition and in various states of disrepair. It looked like no maintenance had been performed for a very long period of time.

It was not long before we were stopped again, this time by the local police. Because it was dark there were not many people visible and the city seemed somewhat deserted. This road block did not turn out to be much as they looked over the trailers and flagged us on. Again, we wondered when this would all end.

The downtown area of Xai-Xai was not very large and we passed through it quickly and followed Tjerk as he turned off the main road and headed for the beach area. As we turned we passed a large dilapidated multi-story structure that appeared to have once been a hotel. All the windows and doors and anything else that could be removed were gone. Later we were told that was the 5 star hotel that served the area during the Portuguese era but soon went out of business not long after they left the country.

### ***And We Have Arrived***

Just after passing the old hotel Tjerk turned abruptly towards the beach and on to a poorly maintained sand road running parallel to the ocean. The road was all dips and pot holes and we literally were going up and down, so much so that before we reached our destination the rear gate to the trailer on Chris’s vehicle was torn off. As that happened Tjerk turned into a driveway leading to the compound and we had finally arrived. It was after 2100 hours and it had been a very long and exhausting day and we were beat. Our planned dinner was being held by Neil VA7DX at the Pizza shop about a mile further down the beach road. The vehicles were secured and the lodging security personnel were roving the area as we walked to the Pizza shop. After dinner we returned to the compound and with lodging having already been assigned we retired for the night.

### ***The Wind.....***

Early the next morning we awoke to heavy straight line winds of 40 plus miles per hour. We met for breakfast just as the sun was starting to come up. Soon after we were tending to our assigned duties based on the team you were assigned to. Don and his inside team started on tasks such as unpacking anything and everything associated with operating positions. I assembled the outside team and knowing our priority was the low band verticals on the beach, we discussed how best to raise them in the high winds. It was not long before it

was decided we would delay the low band antennas because of concern for the safety of those attempting to raise them. I would keep an eye on the weather and at such time as the wind subsided we would stop all other activities and tend to the low band antennas. As the wind continued to blow we started to break out everything to do with antennas and feed lines in preparation for erecting the antennas. Soon the two buildings selected as operation locations, one for SSB and one for CW, were showing signs of operating positions. The compound also was beginning to look like an antenna farm with all the antennas inside the compound with the exception of the low band verticals which would be on the beach. All these tasks were being accomplished in serious winds that were not subsiding.



**Titanix at 40**

### ***The Arrival of "Alberto"***

At about 0700 a tall lanky individual appeared and Tjerk introduced him as "Alberto" to the team members. Alberto worked for the lodging owner and had been assigned to help as needed. At this point we all acknowledged Alberto and thanked him for wanting to help. It did not take long before we realized how valuable Alberto would become. Even though he spoke very little English he understood everything we said and it was not too long before Alberto was doing things we only had to point to and give very little direction.

### ***The First QSO's .What's that noise!***

As the day went on the Hexagonal was assembled on the roof of the two story house and two SteppIR verticals were placed in the center of the compound. By mid-day all antennas except the low band verticals were up and ready for activity. The first CW and SSB QSOs took place on Monday 14 October at 1237Z and 1319Z respectively and the race was on! The operators' schedule had been made earlier in the day and the assigned operators were in place making Q's. It was getting late in the day and we knew the low band antennas could not go up till first thing in the morning. At that time it was decided the antenna team would start

just after breakfast with preparations necessary to erect the verticals on the beach. We also knew this antenna raising operation would require the entire team and that all stations would go QRT to complete that requirement. And the wind was still very strong.



**Hexagonal**

As the evening proceeded and darkness fell those not assigned to operate had dinner and relaxed. Conditions were fair but noisy and mostly to Europe and the Near East. The first NA station, WF2S was worked at 1322Z on 10 CW with no NA worked again till 1533Z with WB2REM on 15 SSB. Still Europe continued to dominate. The operating schedule was initially four on and anywhere from eight to twelve off. The operators were given the flexibility to change their assignment as long as his scheduled period was covered. As the second day arrived both CW and SSB positions were working steady pileups, again mostly Europe and some JA. NA continued not to be in abundance but SA was fair. And the noise continued.

The second day arrived, again with no relief from the wind. We knew we had to get the low band verticals up and met to plan their erection even with the wind. The Battle Creek Special would be first and it was laid out according to the documentation. The guying and four corner stakes were placed in their position. We then called for the team to come to the beach and assist in getting the antenna up. We purposely placed the pull up direction into the wind in hopes the wind would give some stability as it was raised. Most of us had used the BCS a number of times and were familiar with its design and how to raise it. Chris was appointed center man and would be calling the orders as it went up and Tad would be the guying tie person moving from each guy point securing each set of guys. When everyone was in place Chris yelled to pull the guy set up and into the wind. The antenna pulled up nicely with Tad moving from post to post securing as needed. In just a few minutes it was up and ready for radials and tuning. At that time the team not on antenna work returned to the compound and went back to work or if they were operating picked up where they left off. With the BCS up several of the antenna team started working on the

Titanix which was still located at the compound. The wind was still very strong and it was decided to wait till the next morning in hope that the wind would die down.

Four radio positions; two on SSB and two on CW continued to operate through the night on the higher bands but the BCS was not working well making low band results poor. During the night we also experienced our first high noise problems on 80 and 160 with consistent S9 levels. We would erect the listening antennas the next day as well hoping to reduce that noise.

That morning the team raised the Titanix without much difficulty using the same method used for the BCS. Because the Titanix is much taller than the BCS and considerably more flexible it requires careful erection but as with the BCS, most of the team had experience raising it and knew what to expect. Like raising the BCS the wind played a positive role in its erection and kept a sufficient amount of pressure on it as it was raised vertical. All that remained for the low bands were the listening antennas and they were being assembled at the same time.

Also because the BCS had not functioned properly the night before several team members started to look into it. All testing pointed to a coil problem but that could not be confirmed unless it was lowered. They pulled several members together and lowered the antenna and immediately discovered a bad coil. Further research showed it could not be repaired and they shorted it and pulled it back up. From then on it was used as a very tall vertical using an antenna tuner to match it. From that point on the BCS worked satisfactorily.

By day four the wind subsided to some extent and by the half-way point the wind had ceased to be an issue. As the winds died we also realized the high winds had really served us well in the sense windy conditions meant no mosquitos which meant no chance of malaria. With no wind we started to see mosquitos and we needed to pay special attention to our clothing and open doors and windows.



**N9JA and ZS6RI**

As days went by results on low band were less than stellar with poor results all around because of extreme high noise levels. We put into service the Array Shared Apex Loop Array, a beverage and a Pixal listening loop thinking that would reduce the noise. We soon found out none of these special listening antennas gave an advantage on low band and the noise just never stopped. We were on both 80 and 160 each morning and night with the hope of successfully making QSO's but it just did not come about. We did have success with Europe but limited success with NA. As our time started to wind down it became apparent our desire to successfully put C9 on low band would not come to be. Our overall low band effort was a disappointment to all of us as that was our main thrust. In the end we completed 140 QSOs on 160 and 508 on 80.



**NF4A and ZS6P**

Even though there were numerous periods of absolutely no propagation we always had operators on radios. In fact one day I was assigned an 0800-1200 shift on 20 meter SSB in which I did not log a single QSO! Even with these dry spells, as expected 20 meters provided the most consistent propagation with 6,096 QSOs while 10 and 12 meters surprised us with 5,034 and 4,556 QSOs, respectively. 30 and 40 meters provided 2,338 and 2,332 QSOs, although we had expected those bands to be the work horses. 17 meters also did not perform as we had hoped with just 2,183 QSOs and 15 meters at 3,309. The last three days we paid special attention to RTTY completing 1,947 QSOs which we have been told were new entities for many. The overall operation totaled 26,496 QSOs.

### ***Winding Down...***

Soon we would find ourselves beginning to think of the end and starting to break down the equipment and antennas. The four positions were shut down one by one as antennas were taken down. We had allotted the last day – Wednesday - to be break down and packing day and it went smoothly. Our goal was to depart at 0400 hours on Thursday and we dismantled all day on Wednesday finishing by 1800 hours to meet that goal. After everyone cleaned up we went as a team to enjoy pizza at the local Pizza shop.

An early departure served several goals, the most important one being to make every effort to transit from Xai-Xai to the Mozambique border without any road blocks. We also wanted to arrive at Tjerk's QTH before dark.



**K8EAB WF4W N4NX**

We departed exactly as planned at 0400 hours and passed through Xai-Xai without any delays. The area was deserted with the only stop being the toll bridge at the South end of the city which we passed over in record time. As we moved away from the city dawn had started to allow us to see the country side. We passed hundreds of individuals walking along the road side. They were all ages and groups and were all carrying large hand tools like picks, axes, and sickles. As we talked between the three vehicles Tjerk interjected they were heading for work in the rice paddies.

The return drive moved along well until we reached the outskirts of Maputo. The further we moved into the city the slower we went. Soon we were barely moving in heavy traffic and losing time. It was around 0700 and people were going to work and the streets were very busy. As we finally left the city we again picked up speed but were still in heavy traffic. By the time we approached the border checkpoint many people were standing around as they had when we entered the country ten days earlier.

Passing through the Mozambique border checkpoints went without delay and we moved onto the South African checkpoints. Again we took turns having our passports checked while some of the team members watched the trailers. When it appeared everyone had returned to the vehicles I noticed Tjerk had not returned from the border office and I went in to see if there was a problem. Tjerk was arguing with the border guards about the equipment and that we did not have the paperwork to bring it back into the country. He was trying to tell them the guards waved us through on the way into the country and we had no papers. After a long discussion they must have tired of arguing and said to go. As it was, the other two vehicles had already

passed the check point and were waiting for us away from the border. As Tjerk and I pulled away we were again flagged down, this time by two South African police officers wanting to see our papers. Of course we did not have any papers and they were intensely looking over the equipment in the rear of Tjerk's vehicle. Tjerk explained what happened on the way in and that they had not given us any papers. They told us they did not believe us, that they always give papers! Tjerk continued to talk with them until one called his superior to see what to do. Luckily he did not answer and not really knowing what to do he waved us on! We pulled away very quickly meeting up with the two other vehicles and we were on our way - finally back in South Africa. The drive back to Pretoria went without any delays with our only stop being for lunch.

We arrived at Tjerk's well before dark and unpacked the vehicles and trailers. It was not long before everyone had returned to their guest houses and were cleaning up for dinner. We were all physically and mentally exhausted and looking forward to dinner scheduled at one of the guest houses. We needed peace and quiet!

Friday was a day of recovery with some shopping and sightseeing that culminated with a team party that included those local South African DXers who had helped make the DXpedition happen. Their support prior to our departure made the preparations much easier. Without it, we would have had to do many of the required tasks ourselves. The dinner was quiet and much enjoyed by all concerned. It was also time for Ken JN1THL to depart as his flight would be leaving at midnight. He said his good-byes and left with the driver who had picked most of us up when we arrived.

On Saturday morning we assisted Chris ZS6EZ in a US VE testing session for the South African hams. This was the first VE session in South Africa with six hams successfully completing the test to become licensed US hams.

Our schedules called for everyone to depart by the end of the day and we were soon preparing to leave for the airport. Most of the team were on the Delta flight scheduled to depart at 2000 hours local. Our driver picked everyone up at 1500 hours local and we were on the way to the airport. After an uneventful ride to the airport we gathered in the terminal area and those on different flights said good-bye to the team members on the Atlanta flight and went their own way. Before we knew it we were on the aircraft and rolling down the runway bound for Atlanta.

The flight was again very long and we landed in Atlanta right on time at 0600 Sunday morning. Those of us with Atlanta as a final destination quickly said good-bye to the remaining team members making connections and exited the arrival area to see our family members and friends eagerly waiting. It was at that point we realized it was really over!



The team wishes to give a special thank you to our South African team members and supporters for helping us make this trip possible. ZS6P especially turned out to be the “do it” person and along with ZS6RI and Ian Anderson were great team mates. Without their help from the beginning it would not have been as enjoyable as it was. ZS6EZ and ZS6PJH also contributed to the effort on the ground in South Africa and we appreciate it.

We also wish to thank the equipment sponsors; ICOM, SteppIR, Array Solutions, W3YY, Heil, QRZ.DX, STAT, KIO Technologies, RyCo Technologies, W4NL, ZS6WB, G3LZQ, Pixel, and Writelog. We also thank the organizations; Southeastern DX Club, SEDCO, German DX Foundation, West Virginia DX Association, Great Southern DX Association and the Northern California Contest Club and Northern California DX Foundation for providing shirts for the team members.. We especially want to thank the many individuals who donated to the operation.



73 and DX.... N4XP

Edited for GDXF by Prof. Dr. Uwe Jaeger DJ9HX



Team C82DX