

## 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 first met on the air in the mid 1980s, 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 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 second to travel into the bush with Tjerk to an African game preserve in the north of the country adjacent 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 a ham-fest 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, including several I had spoken with from various DX locations which I had operated from in the past. Also Chris, ZS6EZ operated a flying school and treated me to an over-flight of the area. Along with the time at the game preserve, these events proved to be high points of the trip. Chris, ZS6EZ also spent a day showing me a part of South African history one might not see as a “normal” tourist, that being the period when 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 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 not enjoyable, 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 also was a full flight 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 are returning to the gate to remove freight.” Thus, once that took place I guessed we were okay, and after a total of almost three hours on the aircraft we departed for that “nice” 17-hour flight home. Yes, that made 20 hours total time in a very uncomfortable seat! Fortunately, the flight was uneventful and we finally arrived safely back in Atlanta.

### 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 wasn't 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 the 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 low band had been successful and where had it not? Almost 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 worldwide 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 didn't 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 that 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 sit 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 as possible.

Therefore, 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 day's drive from Joburg. Again our concerns for easy access came into play, and it was decided the operation would not go any farther 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



*The C82DX team on the beach*

on a lagoon, while Xai-Xai directly fronts the Indian Ocean. We decided on Xai-Xai, because its beach front would allow our operation to be most effective. 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 as 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 me that logistics must be a priority. Luckily we had the best of both worlds, with team members on site, able to do logistics and other important tasks 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 Xai-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 procured locally. 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 Chris's 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. 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, Pixa! 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 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 various reasons soon must drop out. 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, JN1TH; Rob, K6RB, Bill, N4NX and finally Kevin, K6TD and Neil VA7DX joined.

By mid-June we had completed the team with 14 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 on that task as well. Since low band was the primary intent, these two antennas had to be fully functional and work as designed, and the trailer was needed to carry the long antennas.

#### **Equipment & The Team Arrive in South Africa**

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 the sudden team members would soon be departing their homes and heading for Joburg. Were we ready? We weren't 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 7th and arrived the next evening at 6 PM 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.





*Loaded and ready to hit the road*

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 advance 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.

While Don, Tjerk, and I huddled about 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 were 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 a 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 10-hour drive with arrival before the sun went down would turn into a 16-hour drive from hell when we met the next morning at 0400 local at Tjerk's QTH! It didn't 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 was 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, including 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 you to buy or trade whatever they had. 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.



*Checking the load, tightening all tie downs*

We were an odd-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 came, 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 every-

one 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, with 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 roadside 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, including 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. 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 were flagged to stop, we realized it was a check point with police officers and very visible 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! However, 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 it 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 is 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





*Local Maputo traffic*

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

The downtown area of Xai-Xai is 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 this had been a five-star hotel that served the area during the Portuguese era but soon went out of business not long after they left the country.

### **We Have Arrived**

Just after passing the old hotel, Tjerk turned abruptly toward the beach onto a poorly maintained sand road running parallel to the ocean. The road was all dips and pot holes. 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. We had finally arrived. It was after 2100 hours. 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 farther 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 C82DX compound*

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



*The Titanex antenna in 40 MPH 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 each one was 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. 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 of these tasks were being accomplished in serious winds that were not subsiding.

### 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 didn’t 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 very long before Alberto was doing things we only had to point to and give very little direction. What a gift!

### The First QSOs

#### “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 Qs.



*Low band noise level*

It was getting late in the day, and we knew the low band antennas could not go up until first thing the next 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 all stations would go QRT to complete that requirement. Also, the wind was still very strong.

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 until 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 their 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 came, 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 setup 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 had 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 very strong, and it was decided to wait until the next morning hoping 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, hoping to reduce that noise.

The next 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 prop-

erly 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 mosquitoes and we needed to pay special attention to our clothing and open doors and windows.

As days went by, results on low band were less than stellar, with poor results all around because of extremely 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 QSOs, 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.

Even though there were numerous periods of absolutely no propagation, we always had operators on radios. In fact, one day I was assigned the 0800-1200 shift on 20 meters 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 was a new entity 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 pack up, 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 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.

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 countryside. We passed hundreds of individuals walking along the road side. They were all ages and groups and were carrying large hand tools such as picks, axes, and sickles. As we talked among 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 farther 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 had 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 wasn't long before everyone had returned to their guest houses and cleaned up for dinner. We all were 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 up most of us 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 was on the Delta flight scheduled to depart at 2000 hours local. Our driver picked up everyone 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 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!



*Rusty, W6OAT*



*VA7DX, N4NX and K8EAB taking a break*



*NF4A and ZS6P*



*ZS6RI in the back and Ray, N9JA in front*



*K8EAB, WFW and N4NX*



*K6TD*



*JN1THL and K6RB*



*A VE Testing session was conducted while we were there*

### **Our Thanks**

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.

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73 and good DX, N4XP

*DX*