

The V26K 1998 Story - CQ WORLD WIDE DX CONTEST -- 1998 -- (1999)

By Bud Trench, AA3B

Call: V26K (Op AA3B)
 Country: Antigua & Barbuda
 Mode: CW
 Category: Single Operator
 Zone: 08
 Low Power

Total hours of operation: 41.7

QSL to AA3B.



BAND	QSO	QSO.PTS	PTS/QSO	ZONES	COUNTRIES
160	144	284	2.03	7	13
80	473	1163	2.46	17	55
40	1239	3237	2.61	25	85
20	666	1673	2.51	24	70
15	1128	2928	2.60	30	91
10	1736	4452	2.56	31	96
Totals	5382	13737	2.55	134	410

Total Score	7,472,928
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Equipment Description:

TS 940S

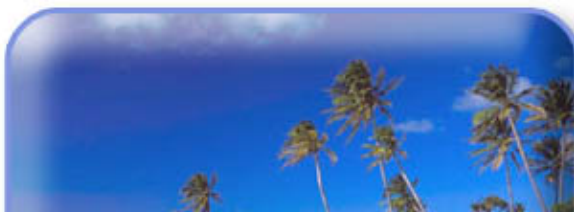
- 10 meters: 4/4/4 Force 12 Stack with top antenna at 70'
- 15 meters: 5/5 stack with the top antenna at 70'
- 20 meters: 3/3 Force 12 Stacked Array with the top antenna at 80'
- 40 meters: 2/2 stack with top antenna at 85'
- 80 meters: 3 element wire yagi at 85' fixed on Europe; Dipole
- 160 meters: Inverted Vee peaked at 80'

Club Affiliation: FRANKFORD RADIO CLUB

Team: Handkey Team #3

I had pretty much resigned myself to operating CQ WW CW from home this year, after having gone to VP2E in 1996 and 1997. I was advised that VP2EE's antennas had been destroyed and that she was too ill to rent the place out. Further, I had tried hard in the spring of 1998 to find a new place to rent, but everything was already booked.

My luck suddenly changed on November 9, 1998 when I saw a message on the local packet bulletin board that the V26B super station had become available for the CW contest. This was short notice, but with the help of Sam, WT3Q and Doug, W3CF, I was able to make the necessary arrangements. I was going back to the Caribbean for CQ WW CW after all!



My goal was to break the single op, all band, low power, unassisted world record of 6.6M points set by 3V8BB in 1997. After a lot of evaluation, I concluded that my stretch goal would be 7.6M. I next studied the BRK file from the 1998 V26B multi-multi CQ WW SSB effort, and used this info to develop QSO and Multiplier goals for each band and an hour by hour operating plan.

My wife, two daughters and I arrived on Antigua on Wednesday, November 24.



We were met at the airport by Roy Carty, V21N, who owns the station. Roy was an outstanding host, and provided help every step of the way. He took us to the station, and showed us the incredible antenna farm that the V26B team has cultivated.

We then attempted to find the hotel, based upon a map that we had gotten from AVIS. We got incredibly lost in the very busy city of St. Johns, and this was a horrifying experience. We were driving on the opposite side of the road, in a car with the steering wheel on the right hand side, through crowded and narrow streets. Finally, we were rescued by Roy V21N, who virtually found us wandering around lost and led us to the Hotel.

I had initially planned to check into the hotel and then return to the station on Wednesday night to start the setup, but I was too stressed out from the trip and the St. John experience; I decided to wait until Thursday morning.

We stayed at the Royal Antigua Beach Club and Tennis Resort, on the advice of W3CF. This turned out to be an excellent recommendation. The whole family had a blast and I felt that we really got our money's worth. My wife and daughters never ran out of things to do or see, and I really believe that they never even missed me during the contest!

I finally figured out how to get from the Hotel to the station on Thursday morning. I spent Thursday setting the station up. The V26B station is normally configured as a multi-multi and I spent a good part of the day re-configuring it as a single op station. The antennas were all in great shape; my only real task was to adjust the 3 element 80M inverted vee beam for the CW portion of the band. Unfortunately, the set up took longer than I anticipated, and I was not able to spend a lot of time on the air on Thursday. Everything seemed to be working fine; my only concern was that my TS 940S was being de-sensed on 20M by a nearby megawatt broadcast station. I could mitigate the problem by cranking in 10 dB of front end attenuation.

I spent Friday morning getting food for the contest. I tried several food markets close to the station, but really wasn't able to find the basic ingredients for turkey sandwiches. I then decided to venture to Food City, which was another recommendation from W3CF. The trip to Food City was the most amazing driving experience I've ever had. I drove through a sea of humanity on narrow streets with cars parked randomly. I virtually kissed the ground when I arrived at Food City, but it turned out to be worth the trip as they had everything I needed.

I arrived at the station at about 1800 GMT and decided to give everything one last try. I spent a few hours running the USA on 10M, and then got a huge JA pile up going on 15M. Everything was playing fine, so I decided to shut the station down and get some rest prior to the contest.

I started the contest out on 15M and then moved to 20M, initially concentrating on high rates from the USA. I spent most of the first evening on 40M and 80M, enjoying great European and USA pileups on both bands. I had my first success on 160M at around 0700Z, but I didn't stay there long because I just didn't feel productive. At around 0800Z, I was working Europe, Japan and the USA simultaneously on 40M, which was a real thrill! I took my first break at 0830 GMT (1192 QSOS, 162 Mults).

I woke up without the alarm clock almost exactly 90 minutes after I went to bed, and I felt great. The sun was just coming up, and 15M was hot. I stayed on 15M until about 1130Z and then went to 10M. Ten was incredible and the pileup was unruly. I truly felt overwhelmed, and started to panic. I then remembered some advice I had gotten from K5ZD - thin the pileup out by going QRQ. I cranked the speed up to 42 WPM, and things began to get organized. I remained in QRQ mode for the next several hours, and enjoyed some great rates.

I felt that rates on 10M were starting to drop at around 1500Z, so I went to 15M and began another decent European run. At 1540Z, 6Y2A asked me to QSY to 10M for a multiplier; although the attempt failed, I realized that 10M was still extremely hot and I got another fantastic run going to Western Europe, then the USA, which lasted until 1810Z.

I did my first multiplier sweep between 1810Z and 1833Z resulting in 17 multipliers. I then parked on 15M and ran North America until 1940Z. Next, it was 20M for Europe and the USA. This proved to be my most productive hours on 20M. At 2200Z the broadcast station fired up, and I started to hear a lot of strange intermod products, so I decided it was time to get off of 20M.

I heard a few JAs on 10M so I decided to give it a try and proceeded to spawn a huge JA / USA pileup. Again, this pileup was so large that I had to go to QRQ mode. I also spread the pileup out about 400 Hz. The JA operators are fantastic, but I was still not able to get this pileup to the point where I was productive. I next experienced a similar situation on 15M; the JA pile up was so large that my rates were impacted. This was starting to feel like hard work!

I went to 40M at 2330Z and spent the balance of Saturday evening working 40M, 80M and 160M. Conditions were very enjoyable, and I felt loud on 40M and 80M. A highlight of Saturday evening was a band sweep in which I picked up 24 multipliers!

Around 0500Z, I started to become very fatigued and hit the wall. I think I saw the angel of death over my right shoulder a few times, and had a few other hallucinations. This is something I've never experienced before in any contest, and I believe it was from the stress of the huge pileups I experienced earlier in the day. I decided to take a break at 0600Z, which was 2 hours earlier than I had originally planned. My totals at this point were: 3729 QSOS, 451 Mults. My outlook at break time was that things were going good, but I was worried about my lack of strength.

I got back on the air at 1030Z, feeling much better. I started off with a band sweep picking up 16 multipliers in 25 minutes, followed by a nice run of USA and JA on 40M. This was a good start!



I decided to try and emphasize 15M and 20M on Sunday, with the goal of breaking a 1000 QSOS on each band. I started on 15M at 1130Z, and worked 400 Europeans without every touching the VFO; this run was particularly Zone 16 intensive. I spent the balance of Sunday morning and early afternoon running Europe, and most of Sunday late afternoon and early evening running North America on 10M, 15M and 20M. In



between each run I did a band sweep, typically picking up 10 to 15 new multipliers.

I decided that I would finish the contest on 40M, and I went there at around 2200Z. I spent the balance of the contest running Europe.

The following is a comparison of my actual score versus my stretch goal:

QSOS	Zones	Cty	Score
5700	135	400	7,616,721
5382	134	410	7,472,928
-318	- 1	+ 10	- 133,793

I fell short of my total QSO point goal due to the need to sleep for 2 hours longer than I had planned. My multiplier totals were above the goal due to the fantastic conditions and very productive band sweeps.

The following is a comparison of my results and the world record established by 3V8BB in 1997:

QSOS	Zones	Cty	Score	
4447	135	422	6,615,489	World Record
5382	134	410	7,472,928	Achieved
+ 935	- 1	- 12	+ 857,439	Delta

Total operating time was 41.7 hours; therefore my average rate was 129 QSOS / hour. As the following table shows, my best rate was 195 QSOS / hour, which I achieved twice, and I generally found that the highest rate hours were the ones in which I was concentrating on running North America. The highest QSO point rates were 470 and 477 points hour; these occurred when running Europe on 10M. Note that these numbers exclude the 141 duplicate contacts that I logged.

I m generally pleased that 55% of the contacts were 3 pointers; I m somewhat surprised about the low percentages for South America and Africa.



I calculate that a multiplier was worth, on average, about 10.9 QSOS.

There are several things I would do differently next time. First, I really felt fatigued on Saturday. I believe that this was due to the stress I had experienced in the several days before the contest, particularly while trying to find my way around Antigua. Next time, I m going to put a lot more energy into understanding the logistics of a new location before I go.

Second lesson learned is that I ve got to have more on the air warm up time before the contest. Even though I operate a lot, I wasn t ready for the pile ups. I wish

I had at least one more day to practice before the contest.

Third lesson learned is that my multiplier total was too low. I need to be more aggressive at moving multipliers, and I need to figure out how to improve my low band totals.

Fourth, I need to figure out how to mitigate the 20M receive de-sense problem that starts when the Broadcast Station fires up. WT3Q had lent me a filter box just before I left, but I did not have a chance to integrate it with my TS940S. This is a must for future operations.

I now believe that 9M to 10M may be achievable in the Single Op All Band Low Power category from Zone 8. Maybe next year!

I want to especially thank Roy, V21N, for being an outstanding host. Roy went out of his way to help, despite the fact that he recently had knee surgery and his leg was in a cast. I also really appreciate all the help and advice I got from WT3Q, W3CF and AB2E on how to get there and where to stay.

The V26K 1999 Story - CQ WORLD WIDE DX CONTEST -- 1999 -- **(1998)**
By Bud Trench, AA3B

Call: V26K
Country: Antigua & Barbuda
Mode: CW
Category: Multi Multi (2 Ops)
Zone: 08

Operators: Bud AA3B, John K3TEJ

Club Affiliation: FRANKFORD RADIO CLUB

BAND	QSO	QSO.PTS	PTS/QSO	ZONES	COUNTRIES
160	217	440	2.03	9	16
80	743	1841	2.48	17	67
40	1772	4727	2.67	27	98
20	1115	2981	2.67	31	103
15	2032	5371	2.64	35	110
10	2367	6380	2.70	32	107
Totals	8246	21740	2.64	151	501

Total Score	14,174,480
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Total hours of operation: 41.5

QSL to AA3B.

Equipment Description:

Station A: TS940S, barefoot (Bud s Station)
Station B: TS570D Transceiver, LA1000NT 500W no tune amp (160-15m), barefoot on 10m (John s Station)

WX0B 6 Pack Switch System

10 meters: 4/4/4 Force 12 Stack with top antenna at 70'
15 meters: 5/5 stack with the top antenna at 70
20 meters: 3/3 Force 12 Stacked Array with the top antenna at 80
40 meters: 2/2 stack with top antenna at 85
80 meters: 3 element wire yagi at 85' fixed on Europe; 2 element wire yagi fixed on USA at 70
160 meters: Inverted Vee at 80

Beverages for USA and Europe

PRE-CONTEST PREPARATION

This was my second trip to the V26B super station for CQ WW CW. In 1998, I put the trip together on three weeks notice when the station unexpectedly became available in early November. I won the single operator low power category and had an absolute blast. So, it was real easy to decide to return to V2 for 1999.



The harder decision was whether or not to try another single operator effort. I was torn - I wanted to defend the title, but I also wanted to help the Frankford Radio Club regain its #1 position. In the spring, I decided that it would be more beneficial to the Club to put together a small multi-op effort, and I teamed up with John, K3TEJ.

I felt that John and I had done a good job of preparing for the trip. It was smooth sailing up until several days before we were to leave, when Hurricane Lenny made its strange trip from west to east through the Caribbean. The storm appeared to stall directly to the west of V2 for several days, and then moved northeast past V2. We got word on Sunday, November 21 that some areas of V2 had gotten over 20" of rain, but there had been little wind and the V26B antennas were in tact. Things were looking up!

John started his trip on Monday, November 22. He landed in V2 and then took a helicopter to VP2M for several days of warm-up from Montserrat. My family and I left for V2 on Wednesday, November 24, which was my

oldest daughter's 13th birthday. We almost had the flight to ourselves, as apparently Hurricane Lenny had scared off many travelers. We had a stop over in St. Martin, and it looked like the island was very brown indicating significant hurricane damage. Things looked much better when we landed in V2.

I was relieved when I got to Roy's place to see all of the antennas up and in good shape. I got things unpacked and set up in about 90 minutes. I made my first QSO 2227Z on 11/24. I very quickly got a nice JA pile-up going on 10M. I was encouraged to be on the air so quickly and have things working so well. I stayed at the station for several hours and then went back to the Hotel.

I returned to the station on Thursday morning and finished setting things up. I decided to dedicate Thursday to warming up. I had an enjoyable day practicing my pileup skills and made about 500 contacts. I left the station feeling upbeat and optimistic. Everything had come together nicely; the station was on the air and I was feeling well prepared. Little did I know what lay ahead!

I slept in on Friday morning and got to the station at about 1600 GMT. John had arrived the night before from VP2M. When I first saw him, it was obvious that he was ill; he told me that he woke up in the middle of the night with the shakes, and that he was hurting. We talked things over and he decided that he would try and keep going in hopes of feeling better. We did some work on the 80M antennas to re-adjust their resonant frequencies from the phone bands to the CW bands, and John started to fade quickly. He indicated to me that he wasn't sure that he was well enough to operate, and that I ought to think about going single op. I told him that we were here to have fun and make points, and that hopefully he would feel better before the end of the contest, and we should continue with our multi-multi plans. He decided to take a nap, while I finished setting things up.

We decided to make a food run at about 1800 GMT, and John seemed to be doing a little better. Upon returning from the food run we decided that we would do one last check of the station and then rest until the start of the contest.

At approximately 1900Z on Friday, we started to test for station to station interference. Immediately after starting the test, my TS940S failed. I lost the receiver, and it appeared that the radio was stuck in a mode somewhere between receive and transmit, as the ON AIR LED was continuously and dimly lit. After trying all of the obvious things, I concluded that something had failed hard in my TS940S. John tried to help me sort out the problem, but then took a turn for the worst, and needed to go back to bed.



A lot of thoughts started to go through my mind at this point. It looked like this contest was not meant to be; John and my radio were both down hard. I decided that I was going to try everything I could to salvage the contest - I had nothing to lose.

I am an electrical engineer, but I have been managing people and programs for the last 10 years, so it has been a long time since I rolled up my sleeves and did any circuit level troubleshooting. I began to trace through the circuitry that controlled the transition from transmit to receive. After about 3 hours (2230Z), I found the culprit - a PNP switching transistor had failed (Q29 on the Control board). This transistor is used to drive the +12V switched line that comes out through my TS940S Transverter DIN plug; I realize now that this failure was probably the result of a shorted connector on that DIN plug.

I was amazed that I had found the problem, but where was I going to get a replacement transistor? This was a simple switching circuit, and I guessed that almost any garden variety PNP transistor might do the



job. I started to look through things I had brought with me, in hopes of finding something I could cannibalize. I found what I believed to be a PNP transistor in one of my spare keying interfaces but, I

wasn't certain. I asked Roy if he had any transistors. Roy called an electrical technician friend of his, and his friend had the needed part. We went to pick it up at 2300Z!

THE CONTEST

I got back to the shack at 2330Z, with 3 transistors provided by Roy's friend. I woke John up, and he decided to try and start the contest, despite his illness. My next challenge was to remove the TS940S control board so that I could replace the transistor. Fortunately, I brought tools with me, including a solder pencil, and I was able to pull the old transistor out. Roy's friend had given me the pin outs for the transistor, but they appeared to be backwards from what I expected them to be. I used the supplied pinouts, despite my misgivings. The radio did not work after the transistor was installed. It was now 0015Z, and the contest was underway. John appeared to be going like gang busters on 40M.

I was out of options at this point. Roy then offered to loan me his FT1000MP. I was on the air with the FT1000MP by about 0045Z. I spent about 30 minutes using it, and I concluded its CW filters weren't going to cut it, as they were too wide. John was also struggling, and decided to go to bed. Our multi-multi effort went QRT at 0130z.

I decided to give the TS940S one more try. I re-installed the transistor using the pin outs that I believed to be correct. IT WORKED! This was probably one of the greatest moments in my ham radio career! I had the TS940S back together and on the air by about 0230Z.

I settled in for a nice run on 40M. I was exhausted, but thrilled to finally be on the air and in the contest. I stayed on 7049 for the next 3 hours, averaging over 160 QSOs per hour. I moved to 80M at 0530z. This was the first time in my contesting career that I ever used a beverage, and I am a believer. I was astounded at how well the beverage was hearing Europe. The 80M 3 element wire beam also played nicely, and I was able to hold a frequency and maintain good rates, while running barefoot. John decided to give things another try and was QRV at 0650Z on 40M. We were now multi-multi!

I went to 160M for the first time at 0730z. It was a struggle, but I did pick up some easy Zone 8 multipliers. It was obvious that the US stations were having a hard time hearing me as I had to repeat calls many times. I stayed on 160M for about 45 minutes and finished the night on 80M. Meanwhile, John went back to bed at around 0800Z, after a nice 40M run. The station was again QRT at 0830Z.

My pre-contest plan had been to sleep for 90 minutes the first night. However, I realized that I had expended an immense amount of energy on Friday afternoon trying to save the radio, and I figured I should sleep for three hours in hope of recovering some strength. Much to my surprise, I woke up at 1030z, and could not fall back to sleep, so I decided to get going. John and I both were on the air by 1045Z.

I started on 10, and conditions were incredible. John started on 15, and he seemed to be feeling better. John and I were networked together, and we saw the last 10 rate meter climb from 200 to 400 QSOs / hour. The last ten meter peaked at over 530 / hour, and the last 100 meter peaked at around 380 / hour. This was fun! Then, the bands seemed to go dead at around 1215Z. We were both concerned that there had been a major solar event of some type. Slowly things started to recover on 10, but still seemed slow on 15. It became apparent that the MUF was very high, and we became concerned that this might hurt our productivity on 15 and 20.

I was on 10M all day on Saturday. I ran Europe for as long as possible, and then ran North America. I became groggy at around 1830z and found myself falling asleep at the keyboard. I decided that I had to take a break, and went to bed between 1900z and 2020z. I attribute this fatigue to the stress I experienced prior to the start of the contest. I went back to 10M after my nap, and continued to run North America. I worked my first 10M JA at 2137Z and enjoyed a nice JA run for the next hour. I then tried 20M, but couldn't get anything going and went to 15M to run NA and JA. I went to 80M at 2320Z, and really had a great time running Europe. The band was quiet and the signals were loud, and I felt loud. I stayed on 80M for three very productive hours. I tried 160M at 0130Z, and picked up a some easy multipliers. At around 0200Z, my laptop locked up and shut down. It turned out that the DC power supply connector had inadvertently pulled out of the computer, and I had been running on batteries, which had fully discharged. Everything came back okay, but I was now slightly out of sync with John. I spent the balance of the second night moving back and forth between 80M and 160M. I went to bed at 0530Z.



John was on 15M up until about 1800z on Saturday and then went to 20M. He had some great hours, despite the need to occasionally take a break. He tried 40M for the first time at around 2130Z, but didn't stay there long. He had a nice JA and NA run on 15M starting at 2150Z, and settled in 40M for a very productive six hour European run at around 2230. He then went to 20M at 0450Z, which seemed to be open simultaneously to Europe, NA, SA, Asia and Africa. He went back to 40M at 0550Z, and stayed there until bedtime at 0630Z.

I got up at 0930Z on Sunday and started on 40M, working NA and JA. John got up at 1030Z and we had a quick caucus. We felt good about our performance during the previous day. The QSO numbers on all bands except 20M looked okay, although our multiplier total looked low. We decided that we would really push to move multipliers, and try and get our 20M QSO total up.

I went to 10M at 1100Z, while John simultaneously went to 15M. Things started off well, but again, the bands seemed to die at 1215Z. Things recovered quickly on 10M, but 15M was unproductive. John tried all combinations of the stacked 15M beams, and could not

get anything going. I kept going on 10M, and decided to take a break at around 1330Z, and asked John to QSY to my run frequency on 10M, to continue the run during my break.



After my break, I went to 15M. Most of the stations in Europe were weak, no matter which antenna I selected. The only loud stations were those in Asia. I concluded that the MUF was very high, and that I had to make the best of it. I called CQ, and the rates started to improve. By about 1430z, both 10M and 15M were going big guns!

John and I began to push hard to pass multipliers back and forth. The typical scenario was that a multiplier would call John and 10M, and he would pass the multiplier to me on 15M, and then I would move the multiplier to 20M. This really worked well. We stayed in this configuration up until around 1830Z, when John moved from 10M to 20M. John did a bang up job of growing our 20M QSO totals, while I was pushing on 15M. I moved to 40M at 2200Z, while John kept going on 20M.

It was now 2230Z and it looked like we had a shot at 14M. We decided that I would spend the last hour of the contest doing a sweep of the bands for multipliers. I gave John my 40M run frequency, and began sweeping the bands starting with 160M and working my way up to 10M. This resulted in 14 multipliers, which is roughly equivalent to 177 QSOs, so this was wise decision. Meanwhile, John did a fine job of running Europe, and we ended the contest with a score of 14.1M points.

POST CONTEST DATA EVALUATION

I've spent some time analyzing the log, with two goals in mind. I'd like to see what we could have done better, and also try and estimate what our score might have been if we didn't have the problems we experienced.

Our average rate for the 48 hour contest period was 177 QSOs / hour. Our average rate for the time we were actually on the air (41.5 Hours) was 199 QSOs / Hour.

It looks to me like our problems resulted in me losing about 3 hours of operating time and John losing about 6 hours of operating time.

Our gross QSO total was 8558 QSOs, of which 3.6% (312 QSOs) were dupes.

Our most productive hour was between 11:00 and 11:59 on Saturday - this was obviously the first European runs on 10M and 15M.

We worked 4974 unique calls: 66 were worked on 6 bands; 145 on 5 bands; 233 on 4 bands; 387 on 3 bands; 888 on 2 bands, and 3255 on 1 band.

Our average QSO points / contact was 2.64, which was higher than I was expecting. However, the above data suggests to me that we underwhelmed South America and Africa.

A multiplier was equivalent to 12.6 QSOs.

We successfully executed 36 passes, resulting in 41 multipliers. I would guess that we probably tried to pass approximately twice that number.

So, what might have been if we didn't have our startup problems and had done a better job of working mults?. I figure that the 9 hours of combined time that John and I lost probably cost us 900 QSOs. I think we should have had at least another 60 multipliers. Our score probably should have been 17.2M.



CLOSING REMARKS

I believe that John and I accomplished our objectives, which were to make a big contribution to the FRC effort and have fun. When it was over, John and I were both pleased with the results. We recognized that we had done a nice job of recovering from a disastrous start, through determination and perseverance. John was a super teammate, and proved to be a diehard tester. He hung in there, despite the fact that he was feeling very poor.

I d like to thank the following people for the help in making this effort possible:

John, K3TEJ, for being an outstanding teammate and working the pre-contest communications and coordination.

The entire V26B team for all their work in setting the station up following the damage caused by Hurricane Jose.

Sam, WT3Q, for his help with the arrangements and licensing, along with lots of good information and tips.

Doug, W3CF, for his help with the Royal Antiguan.

Brian, N3OC, for his help and advice on the antennas.