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Newsletter of the Big Bend Amateur Radio Club, AD5BB

July/August, 2015

Alpine, Texas

BBARC CLUB CALL SIGN NOW K5FD

The Big Bend Amateur Radio Club officially received the call sign K5FD as an In Memoriam club call sign. James Cook had been an integral part of the BBARC for the past 34 years.

Cut Along This Line

UNITED STATES OF AMERICA FEDERAL COMMUNICATIONS COMMISSION AMATEUR RADIO LICENSE K5FD			
ATTN: DAVID L COCKRUM BIG BEND AMATEUR RADIO CLUB 301 N 5TH ST ALPINE, TX 79830			
FCC Registration Number (FRN): 0018315044			
Special Conditions / Endorsements			
NONE			
Grant Date	Effective Date	Print Date	Expiration Date
05-22-2015	05-22-2015	05-22-2015	05-22-2025
File Number	Operator Privileges	Station Privileges	
0006788284		CLUB	
THIS LICENSE IS NOT TRANSFERABLE			
_____ (Licensee's Signature)			FCC 660 - May 2007

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FIELD DAY, 40 YEARS LATER!

In June, 1975, the BBARC held its first Field Day event. This year was the 40th FD in which the club has participated. Three of the operators at this year's FD were in attendance at the first one in 1975: KI5YG, N5DO, and WA5ROE.

Some thoughts on the first Field Day:

Some things never change. We set up on "Big Hill" about five miles south of Alpine. Saturday night a thunderstorm complete with lightning danced about and we shut down the station and ran to town. This year we operated from the Double Diamond pavilion on the back side of Big Hill and had to shut down for about 40 minutes due to lightning.

In 1975 we had one tent / operating position for the novices. When we fled the top of the mountain to go to town one group stayed: the novices. KI5YG was one of that group and he now says, "we were having too much fun to leave." Plus the novices thought we "old folks" were a bunch of wimps.

Jake Sibley (SK), WB5HQV (later KP2S), drove up with the neatest rig we had ever seen mounted in his pickup: a Kenwood TS-520. We were all envious!

The photo below shows life at the old FD site. The main gathering point was an old West Texas Funeral Service tent (affectionately called the Digger O'Dell tent). [Actually this photo was taken in 1989, some 14 years after our first FD!]



The following photo, taken this year, shows one of the major differences over the past 40 years: we have progressed from simple 40 foot metal push up masts to this state of the art, portable, mechanized 90 foot tower (borrowed from the Jeff Davis County Emergency Management). However, we still use

We had used K5FD as our Field Day call sign since James and his family moved to Alpine in 1980. Many amateurs in West Texas automatically associated K5FD with the BBARC, although our official club call sign was AD5BB. This call sign (AD5BB) is now cancelled and will be available as a vanity call sign in two years.

The 2015 BBARC Field Day operation was dedicated to the memory of James. Brief remarks and a prayer were delivered by club president, Bill Brooks, KE5OG.

All of the BBARC repeaters have been reprogrammed so the ID is now K5FD. When you hear the melodious CW tones on our repeaters: dah-di-dah, di-di-di-di-dit, di-di-dah-dit, dah-di-dit, it is spelling out K 5 F D. Who said CW was hard to learn?

old-style push up masts for some of our operating positions, such as the GOTA (Get on the Air) and VHF stations.



How many hams does it take to attach the ARRL flag to an antenna mast? (Left to right) KI5YG, KM5VM, KA5PVB (actually attaching the flag), Jake, KE5OG, and W5NPR.



Carla, K5RKA, and John, AE5B, at the VHF (six meter) position. Hours of boredom relieved by those few hours when the band opens up!



Robin, KK5ROB, Polly, KF5KMB, assisted by Rusty, KB5R at the GOTA station.

One constant is that everyone at the BBARC Field Day eats well. Bob, WA5ROE, assisted by Ike Roberts, continues to turn out fantastic meals. Various individuals assist by bringing our desserts, salads and casseroles. Included in this group were Barb, XYL of N5JOE, Susie, XYL of W5NPR, Barb, KM5VM, Lucy, XYL of WA5ROE, and Robin, KK5ROB.



One half of the cooking team. Ashlyn, Irving, and Ike Roberts.

Coffee drinkers swear by the camp coffee which is always available. There was also a large supply of cold drinks: bottled water, soft drinks, and for the select few (in the old days, the select many), 807s.

In the middle of this 5 Star restaurant we managed to put together four stations: an SSB station and a CW station (both using the call K5FD), a GOTA (Get On the Air) station using Steve Richie's call, W5JSR, and a "free" extra station (using K5FD) that monitored six meters around the clock.

Comparing this year to last year:

	<u>2014</u>	<u>2015</u>
CW	1,064	1,719
SSB	1,813	1,322
(includes VHF and GOTA)		
Digital	102	0
Total	2,979	3,041
Final Score	9,560	10,610

KE5OG has records going back to 2001 on our Field Day scores. This year beats our previous high score in 2007 of 10,534 by a whopping 76 points. Rumor has it that the BBARC may have won the battle for the Section Manager's plaque for the highest score in Field Day in the West Texas Section for the second year in a row. We will have to wait to see how our log survives the log checking process and how we compare against the scores from the rest of the section.

Once again there was good attendance at this year's Field Day. John, AE5B, and Carla, K5RLA, made the trip from the Abilene area but lost the competition for the most distance traveled to Mike, WA5POK, who came from Tennessee. Steve, KI5YG, put some miles on his vehicle, coming from Round Rock.

Spotted at this year's Field Day were: AE5B, K5AHI, K5RLA, KA5PVB, KB5R, KE5KNQ, KE5OG, KF5KMB, KG5BMK, KG5CGR, KI5YG, KK5ROB, KM5V, KM5VM, N5DO, N5JOE, NW5M, W5ATO, W5DWI, W5JSR, W5JUW, W5NPR, WA5POK and WA5ROE.

PROGRAMS FOR THE NEXT TWO MEETINGS

The next meeting of the BBARC will be Tuesday, July 14, at 7:30 p.m. in the meeting room at the West Texas National Bank in Alpine. Coming on the heels of Field Day, this meeting traditionally has low attendance, so the program will be a discussion of the past Field Day and what can be improved next year.

The August meeting will be on August 11 at 7:30 p.m. in the West Texas National Bank meeting room. The program will be a presentation of the "Summits on the Air" activity by Chuck, KA5PVB.

WEST GULF DIVISION AWARDS GO TO WEST TEXAS HAMS!

The West Gulf Division awarded two awards to West Texas Section amateurs at HamCom in May. Both amateurs are from El Paso. Clay Emert, K5TRW, a long-time friend of the BBARC, was named Ham of the Year for his years of dedicated service to the amateur radio community. Clay is especially active in the El Paso Amateur Radio Club.

The West Gulf Award for Excellence went to Mike Olbrisch, KD5KC, for his promotion of the "Summits on the Air" program. You may remember Mike wrote an account of his SOTA activities in the Big Bend area in the September 2014 issue of the BARK. Here is his photo from that issue:



Congratulations to both these deserving individuals!

BIG BEND EMERGENCY NET REPORT From WA5ROE

Date	Check-ins	Length	Remarks
May 4	42	37 min	
May 11	32	25 min	
May 18	36	22 min	
May 25	30	30 min	Poor conditions
June 1	37	26 min	
June 8	26	25 min	
June 15	29	30 min	
June 22	37	25 min	
June 29	36	25 min	Net control from K5FD Field Day site

Remember – the BBEN meets **every** Sunday on 3922 KHz at 8:30 a.m. Central time (either CST or CDT). Visitors always welcome.

6 METER "QUACK" BEAM Modeled by AD5Q; built by WA5POK

Mike, WA5POK (now / 4 in Tennessee), is a frequent visitor to the Big Bend and the BBARC Field Day. This year he brought a nifty 2 element 6 meter beam he had designed. The whole package, including mast and guy ropes, fits into a small compact package. Here is an article he wrote describing this antenna for anyone who wants to try their hand at the "Magic Band."

For grid square expeditions I was going to use a two element quad for 6 meters but after one expedition, I decided a 6 meter beam would be best. The quad, as good as it is, is a rather ungainly, three dimensional structure to erect in the field so therefore, I wanted an easy-to-build antenna to use for grid square expeditions. With the materials I had on hand, I called my friend Roy, aka **AD5Q**, aka **Quack** and told him the materials I had and what I wanted. Roy is an expert at designing and modeling antennas and each time the antenna is built, it performs as it should without having to tinker or adjust any of the dimensions. It is "spot on."

How did I get into grid square expeditions? In the summer of 2010 right after Field Day in Alpine, Texas, a call went out on 2 meters to help a group of grid square expeditioners that got stuck on a road going to DL88. Steve, KI5YG and I answered the call to help and off we went to Big Bend National Park. I knew the area very well from hiking and canoeing in the area, but I was not sure how they got stuck (I had a Trans Am in that area many times before.) By the time we got there the park service had drug the other group out so Steve and I decided to go on to the location. The park service really frowned at us when we applied for the back country permit to drive to the area since they had extracted the other group just an hour before. We assured them we had the correct vehicles. If you worked us, you received the QSL shown below.

We got to the location of DL88 without any trouble and looked around. We decided we could operate 6 meters by using our rigs (mine a FT100D, his FT857) and using our 5/8 wavelength two meter antennas. So we did and a bunch of hams were happy.

Now these are not the most effective antennas to use on 6 meters but they worked in a pinch. Our minds started working. Let's do an expedition here! I had the materials and built a two element 6 meter quad, used it once, then built this two element 6 meter beam. The summer of 2011 after Field Day was our target date for our little expedition. Well, after Field Day we decided not to go because of the heat and fire danger that existed in the park (112° and bone dry) and for that matter, most of Texas. We had to get a special permit just to use camp stoves in a park at Field Day. One day we will get back there.



Back to this antenna project ...

My requirements for easy field assembly:

1. Two elements
2. Direct feed with 50Ω coax (KISS)
3. Insulate the elements from boom for ease of modeling, construction, and matching

Note: A side benefit of this antenna is that it fits, fully assembled, in the bed of my pickup. All that is required is to loosen the screw clamps, extend the 5/8" section of the elements and tighten the screw clamps. The beam is ready!

I have (left over from another project) (from Texas Towers):

1. Two 6' lengths of 3/4" aluminum tubing
2. Two 6' lengths of 5/8" aluminum tubing

Note: This antenna would be a lot lighter if smaller diameter tubing was used. I used what I had on hand.

→ Thirty minutes after I called Roy I got an e-mail with the following information. ←

1. Driven element: 3/4" tubing is 72" long, cut in the middle for feed line attachment; 5/8" tubing extends 17.8335" beyond end of each section of the 3/4" tubing.

2. Reflector: 3/4" tubing is 72" long; 5/8" tubing extends 21.1835" beyond each end of the 3/4" tube
3. The reflector is spaced 3'10" (center to center) behind the driven element.

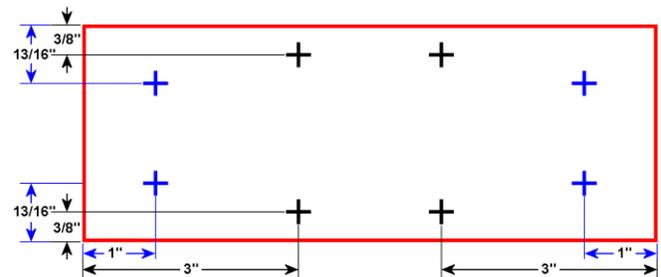
Characteristics (see modeling performance graphs at the end of this article):

1. 50Ω feed point impedance
2. Gain is 6.6 dbi
3. Front-to-back is 7.5 dbi

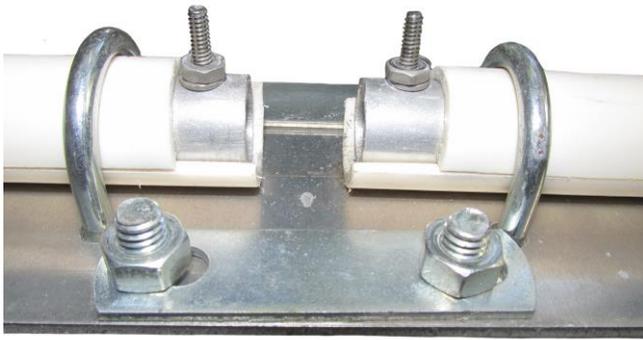
Construction Details:

I am not going to expound on all the minor details of building this antenna but just offer the guidelines I used including a few diagrams and pictures of what I did. Below are diagrams and pictures that show the reflector element-to-boom mount and the driven element-to-boom mount. Both plates are 8" X 3 3/4" i.d. PVC pipe was used to insulate the elements from the boom. The inside diameter was a bit loose and a lengthwise slit was cut into the PVC that would allow the PVC to become tight around the aluminum tubing.

Reflector Details:

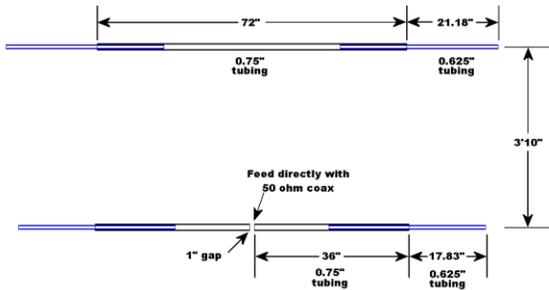


Driven Element Details:



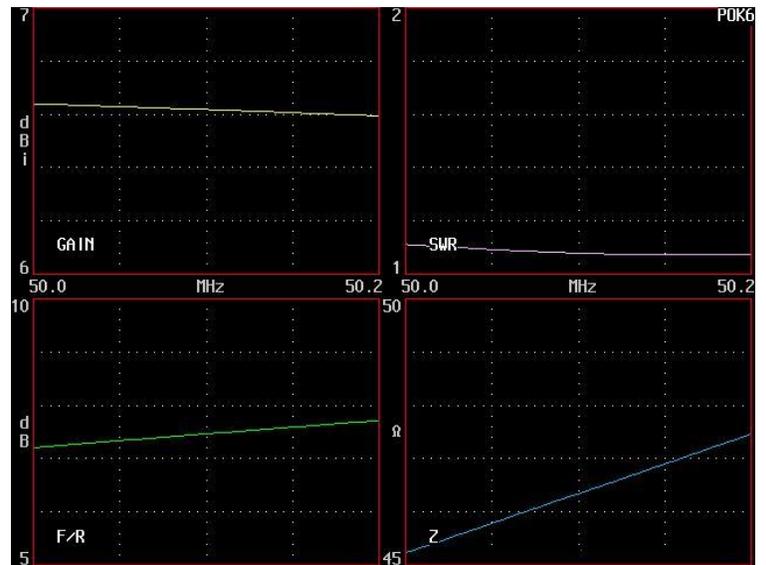
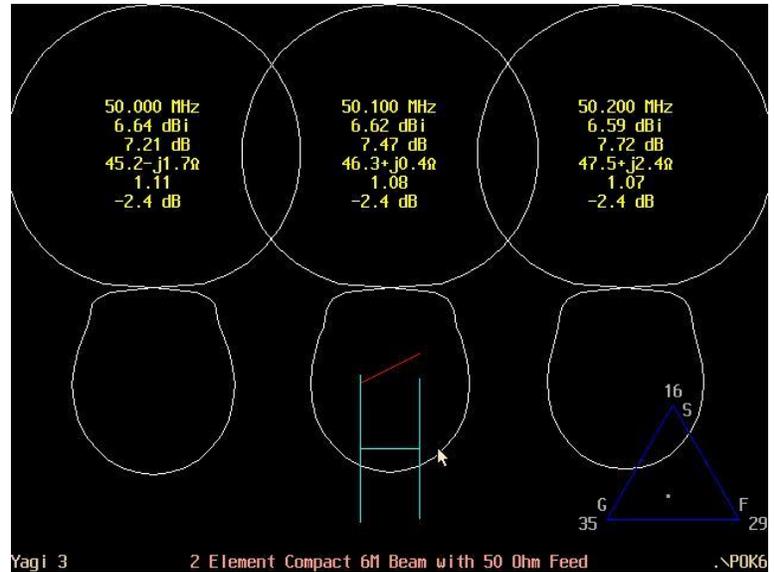
Element Lengths and Element Spacing Details:

One 3/4"X72" aluminum tube is cut into two 36" sections to use for the driven element and the other 3/4"X72" tube is left whole for the reflector element. Both the 5/8"X72" aluminum tubes are cut into 36" lengths. The 3/4" tubes have a 1" slit cut into each end and a compression clamp is used to tighten the ends of the 3/4" tubing on the 5/8" tubing. The 5/8" tubes telescope into the 3/4" tubes as shown below. The reflector dimensions are shown at the top of the diagram and the driven element dimensions are shown at the bottom of the diagram.



Once the antenna was assembled, it was transported to the Alpine, TX Field Day location, erected, and put on-the-air. The beam is connected to 50Ω through a current balun composed of 5 turns of RG8 around a 4" form. It performed flawlessly and exactly as it should. Lots of 6 meter QSOs were made during Field Day.

Modeling Graphs from AD5Q:



THE BARK
Newsletter of the BBARC

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1402 N. 5th St.
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Publisher: Bob Ward, WA5ROE
[wa5roe at juno.com](http://wa5roe.at.juno.com)

Editor: Dave Cockrum, N5DO
[n5do at sbcglobal.net](mailto:n5do@sbcglobal.net)

BIG BEND AMATEUR RADIO CLUB

<http://www.bigbendarc.com>

Meetings on the second Tuesday of each month at the West Texas National Bank Building in Alpine, 7:30 P.M. CST/CDT.

ARRL Affiliated Club

MEMBERSHIP AND NEWSLETTER SUBSCRIPTION

Annual membership is Jan. 1 to Dec. 31 each year. Dues are \$36.00 per year for individual or individual & spouse.

Membership allows you to participate in all club activities and vote at the monthly meetings.

Newsletters are available by e-mail for members, subscribers, and interested recipients. Send your e-mail address to [n5do at sbcglobal.net](mailto:n5do@sbcglobal.net) to be put on the list.

ABOUT THE BBARC

Founded December 17, 1974

ARRL affiliate since 1986

The BBARC is a 501(C)3 organization. Contributions are tax deductible.

Big Bend Emergency Net, 3.922 MHz

Founded September 18, 1977

Meets every Sunday morning at 8:30 A.M. CST/CDT

Controlled net format. Welcomes new participants and visitors.

Established by Bob Ward, WA5ROE.

Net Manager, Bob Ward, WA5ROE, [wa5roe at juno.com](mailto:wa5roe@juno.com)

Big Bend 2-meter Net

Founded July 9, 2008

Meets every Wednesday evening at 8:00 P.M. CST/CDT

Controlled net format. Welcomes new participants and visitors.

Established by Bob Ayer, KA1AAJ (SK)

Net Manager, Chuck Dobbins, KA5PVB, [charles.dobbins52 at yahoo.com](mailto:charles.dobbins52@yahoo.com)

BBARC REPEATER SYSTEM

All standard offsets. All repeaters require 146.2 Hz PL tone encoded on your transmit signal. All repeaters are linked.

147.120+	Shafter, Cibolo Creek
147.020+	Elephant Mt. south of Alpine. System hub
146.620-	Ft. Davis located at McDonald Observatory
146.720-	Alpine, Twin Sisters Peaks
146.820-	Terlingua
146.920-	Glass Mountains, Alpine / Ft. Stockton
145.230-	Emergency Repeater

BBARC CALENDAR OF EVENTS

July 14, 2015, Tuesday, 7:30 p.m.

BBARC MEETING, West Texas National Bank Building
Program: General discussion of Field Day 2015

August 11, 2015, Tuesday, 7:30 p.m.

BBARC MEETING, West Texas National Bank Building
Program KA5PVB on "Summits on the Air"