



B-VARC BULLETIN

The Monthly Publication of the
BRAZOS VALLEY AMATEUR RADIO CLUB
Serving Fort Bend and Harris Counties

Editor in Chief: Kelley Hughes N5ULZ (713) 499-9806 FAX: (713) 499-0279 Compuserve ID: 72603,623

About the Brazos Valley Amateur Radio Club . . .

Organized in 1977, the club has been growing steadily. It is a gathering place for HAM radio operators in Fort Bend and Southwest Harris Counties and surrounding communities. It is a general-purpose type of HAM club offering a variety of activities open to all interested persons. Membership is open not only to licensed HAM operators, but also to anyone interested in the hobby. In addition to regularly-scheduled membership meetings, the club each year conducts classes leading to amateur radio licenses, and each month sponsors a volunteer-examiner team that offers examinations in all levels of HAM licenses.

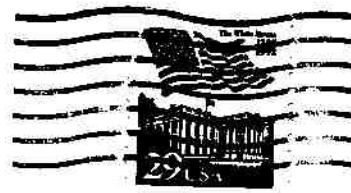
To obtain information about the club and its various activities, as well as information about joining the club, contact Betty Wilcox, KA0TEN, at (713) 859-6512.

Volume: 17 Issue: 5

May 1994

ADDRESS CORRECTION REQUESTED

*From: Brazos Valley Amateur Radio Club, Inc.
P. O. Box 1630
Missouri City, Texas 77459*



DON'T FORGET ABOUT FIELD DAY - JUNE 25!!

B-VARC MEETING SCHEDULE

Thursday, May 12 7:30 pm	General BVARC Membership Meeting - Sugar Land Community Center
Thursday, June 2 7:30 pm	Board of Directors Meeting Sugar Land Community Center

Allen Mattis N5AFV
5314 Wigton Drive
Houston, TX 77096



May 1994

B-VARC Calendar of Events

B-VARC Calendar of Events													
Sunday		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday	
1	7:30 PM A.R.E.S. Net 147.30	2	7:30 PM 34-94 Swap Net 146.94 8:00 PM Fort Bend County Emergency Net 145.49 9:00 PM BVARC Net 145.47 & Linked Repeaters	3	8:00 PM 10-10 SHOT Net 28.488 10:00 PM AMSAT 147.10	4	8:00 PM B-VARC Rag Chew 3.960 (Busy? +3 Khz)	5	7:30 PM B-VARC Board Meeting: Sugar Land Community Center	6		7	7:30 AM B-VARC Breakfast 9:00 AM Hou. Emer- gency Management NET 146.84 (9:30 on 3.905)
8	1:30 PM Texas State RACES Net 7.248 7:30 PM A.R.E.S. Net 147.30	9	7:30 PM 34-94 Swap Net 146.94 8:00 PM Fort Bend County Emergency Net 145.49 9:00 PM BVARC Net 145.47 & Linked Repeaters	10	6:00 PM Amateur Exam Session Strake Jesuit College Prep. 8:00 PM 10-10 SHOT Net 28.488 10:00 PM AMSAT 147.10	11	8:00 PM B-VARC Rag Chew 3.960 (Busy? +3 Khz)	12	7:30 PM Membership Meeting Sugar Land Commu- nity Center	13		14	7:30 AM B-VARC Breakfast 9:00 AM Hou. Emer- gency Management NET 146.84 (9:30 on 3.905)
15	7:30 PM A.R.E.S. Net 147.30	16	7:30 PM 34-94 Swap Net 146.94 8:00 PM Fort Bend County Emergency Net 145.49 9:00 PM BVARC Net 145.47 & Linked Repeaters	17	8:00 PM 10-10 SHOT Net 28.488 10:00 PM AMSAT 147.10	18	8:00 PM B-VARC Rag Chew 3.960 (Busy? +3 Khz)	19		20		21	7:30 AM B-VARC Breakfast 9:00 AM Hou. Emer- gency Management NET 146.84 (9:30 on 3.905)
22	1:30 PM Texas State RACES Net 7.248 7:30 PM A.R.E.S. Net 147.30	23	7:30 PM 34-94 Swap Net 146.94 8:00 PM Fort Bend County Emergency Net 145.49 9:00 PM BVARC Net 145.47 & Linked Repeaters	24	8:00 PM 10-10 SHOT Net 28.488 10:00 PM AMSAT 147.10	25	8:00 PM B-VARC Rag Chew 3.960 (Busy? +3 Khz)	26		27		28	7:30 AM B-VARC Breakfast 9:00 AM Hou. Emer- gency Management NET 146.84 (9:30 on 3.905)
6A-9P Technician QSO Party													

April						
S	M	T	W	T	F	S
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

June						
S	M	T	W	T	F	S
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

Please report any changes or corrections

Kelley Hughes, N5ULZ, 499-9806

Notes From the President

by Doug Holley, KE5SR

Spring is definitely here, as we can tell from the tornadoes that come with every spring. It is ever more important that we as amateurs educate ourselves on what to watch for and how to respond to these storms. The Skywarn program that is offered by Meteorologist Gene Hafele of N.O.A.A. has been revised, and I would urge every BVARC member to attend one of these seminars. I am arranging one of these seminars presently, and you will hear more about it in the future.

I would like to thank Craig Culver, AB5OK, for arranging to have Alan Cross, our ARRL South Texas Director, for our April program. So many ideas came from the program, both from BVARC members and Alan. I now more clearly understand the structure of ARRL affiliates and how our messages, gripes, and ideas get to ARRL headquarters and sometimes on to the FCC. The good things and the frustrations which we all as members experience with our hobby are a result of our changing society in general, a lack of federal funds to help with enforcement of existing rules, and officials that are reluctant to try cases brought before them. The answer comes through programs and by example.

I found the program presented by Alan Cross extremely educational and beneficial, although the discussions were heated at times on both sides. I think having Alan back next year for a program is a "must".

The May program for the general meeting will be on the "Ten-Ten" group and what they represent. This should be a very interesting presentation.

Thus far, 1994 has proven to be a tragic year for BVARC...more so than I can remember in past years. I think of the loss of Terry Harrison, Beth Lamkin, Mamie Kronberg, and the serious illness of Vic Richard and Don Hadley. We pray for good news the rest of 1994.

The campout was a total success. Twenty-three people and four dogs participated. Betty Wilcox will have details in her column about the event elsewhere in this issue.

See you at the May meeting. Good DX and 73's.

Doug, KE5SR.

BVARC RAG CHEW CHECK IN'S
3:00 PM to 4:00 PM Wednesdays
Compiled by Mel Thatcher, KB5ION

April 5, 1994

KB5ION (Net Control), K55SC, WN5A, KB5PAJ, AB5OK, W5EFB, KE5SR, N5CPA, W5IHY, W5TVM, N5AFV, W5GLD, W5GHI, KB5LFU, N5ECP, KB5ZRV, K5SW, WY7U, W5DRB, W5OEN, N5UOG

April 13, 1994

KB5LFU (Net Control), KB5ION, N5UOG, W5EFB, N5AFV, K55SC, KB5PAJ, W5IHY, N5CPA, KE5SR, N5OAC, AB5OK, WN5A, N5YKR, KB5JTAN5AC, W5GHI, K5SPRE, W5NES, K5KY, N5KXU

April 20, 1994

KB5ION (Net Control), KE5SR, W5GHI, W5EFB, K5BDO, K55SC, KB5LFU, N5CPA, KB5ZRV, K5SW, N5UOG, W5GLD, N5POV, KB5PAJ, W5IHY, W5UTM, K5KY, W5TVM, WN5A, N5KXU

April 27, 1994

N5CPA (Net Control), N5OAC, W5GHI, K55SC, KB5PAJ, W5EFB, KB5LFU, N5AFV, W5GLD, KB5ZRV, WN5A, W5IHY, N5YKR

IN MEMORY

Terry Harrison, KB5UE, age 75, became a silent key March 20, 1994. Terry was a member of BVARC for many years and made many friends. Most of his working career was spent as a Maritime Mobile operator.

Terry Harrison will be greatly missed by BVARC, as well as the Ham community.

I Speak - .- -.-

Randy Pollard, AK5G

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B-VARC Board of Directors Meeting

April 7, 1994

by Bud King, N5UOG

A quorum of the B-VARC Board of Directors met at the Sugar Land Community Center on April 7, 1994. This was the fourth meeting of the Board for the 1994 calendar year. The following Board members were in attendance: Doug Holley, KE5SR; Mel Thatcher, KB5ION; Betty Wilcox, KA0TEN; Sam Wilson, N5CPA; Claude Sessions, K5HFY; Vincent Orlando, WA%ETS; Bill Dessens, N5KXU; and Bud King, N5UOG.

President Holley, KE5SR, opened the meeting at 7:30 pm. The minutes of the March Board meeting were submitted by Bud King and unanimously approved.

The Club Treasurer, Sam Wilson, N5CPA, reported a balance of \$4,032.01 in the treasury as of March 31, 1994. The treasurer's report was approved unanimously.

Vice President, Mel Thatcher, KB5ION, advised the Board that the Novice-Tech Classes have started, and are being conducted by Larry Levy, WD5DRB, with the assistance of Charles Prochaska, KG5KV, Steve Gottlieb, WA5OEN, and Mel Thatcher, KB5ION. Mel's report included the information that the "Rag Chew Net" was alive and well with check-in's running from 15 to 23 per session.

President Holley introduced Bill Dessens, K5KXU, who will fill the unexpired term for the replaced director.

Mike Hardwick, N5VCX, and Bret Pritchard, N5VOY, reported on the progress of the planning of the upcoming 1994 MS 150 Bike Tour. A statement was made that BVARC would contribute the services of 17 to 22 Hams for the tour. Approximately 100 volunteer Hams will be responsible for the communications for the two day tour. Plans were discussed about establishing an HF link between La Grange and Houston in order to have a phone patch available for riders of the MS 150 tour.

Al Zermeno, KK5W, accepted the chairmanship of the BVARC Field Day Event. The Board unanimously expressed its appreciation for Al's acceptance of the position. Al advised the board that the "Ronald McDonald House Spring Fling" would be held on April 16th. The Board unanimously voted to renew its annual contribution to "World News". Claude Sessions, K5HFY, advised the Board that on a monthly basis he provides the "Fort Bend Lifestyle"

magazine a BVARC information bulletin for inclusion in their event section. A suggestion was made by Bret Pritchard, N5VOY, and others, that a letter be sent to the Belleville Amateur Radio Club expressing the Board's concern and interest in the loss of their repeater tower during a recent windstorm.

BVARC will sponsor a new Code Class featuring 5 WPM to 13 WPM CW lessons starting on May 2nd. The classes will be held every Tuesday night from 7:00 to 8:30 at the Church of Christ.

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CODE CLASSES OFFERED AGAIN

Starting May 2, 1994, Novice and General class code classes will be offered by BVARC. Classes will start from 0 to 5 words per minute. The second part of the program will run from 5 to 13 WPM. Code tapes and hand key oscillators will both be used. The classes will meet each Tuesday from 7:00 PM to 8:30 PM at the First Colony Church of Christ, located at 3119 Sweetwater Blvd..

To reach the site, travel south on US 59, one exit south of Highway 6. This is Sweetwater Blvd.. Exit left over the freeway going south for 1.7 miles. The church is on the right-hand side. Park in the parking lot, and come upstairs to room 221.

The class will last six to eight weeks, but before you start you must make up your mind to spend fifteen minutes a day on your own with some type of practice. This is a must. If you have any questions, feel free to call me at 342-8028. I would like as many members to attend as possible.

Doug Holley
KE5SR

Results of the April Amateur Exam Session

by Harold Parker, ND5F

B-VARC again sponsored and administered the ARRL's Amateur Radio Examinations that were held on Tuesday evening, April 12, 1994 at Strake Jesuit College Preparatory in Houston.

V.E. TEAM:

Craig Culver, AB5OK
Harold Parker, ND5F
Joe Ross, AA5BD

Assistants:

Carl Albrecht, AA5JW
Cass Germany, KG5IT
Don Schexnaider, AB5IV

A total of 37 exams were administered during the evening to 21 applicants. Seven (7) unlicensed candidates received their new licenses, and 3 others upgraded with a total of 23 elements passed. The overall "pass rate" for the evening was 62%.

Congratulations to the following who upgraded and/or passes exams.

Nathan Anspach, N4VFS - Extra
Rickey Cummins - Technician
James Franklin - Technician
Jerry Grossman - Technician
Scott Hall - Element 3A
David Hardy, Sr. - Technician
Charles Hluchan, Sr., N5XVY - General
Peter Jacquelin, WH6BDO - General
Allen Kirkland, KC5DWL - Element 3B
Lucille Peatross - Technician
Howard Russell - Element 4A
Tana Slay - Technician
James Strasen, Pending - Element 4B
Dale Temple - Technician
Steven VanDusen - Element 3A
Alun Waters, Pending - Element 3B

Many thanks to all the Team Members and Assistants who volunteer their valuable time and effort each month.

All of us at B-VARC again thank Vincent, WA5ETS, and everyone at Strake Jesuit College Preparatory for making these excellent classroom facilities available to us for our exams each month.

73 de ND5F



Low Kronberg
Chairman of the Board
WB1HY

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Bulletin Deadline

The normal deadline for articles to be submitted in the Bulletin is the 25th of the month preceding publication. For example, to get an article in the June Bulletin, it should be received no later than May 25th.

The preferred method for receiving bulletin articles is via some type of electronic medium. You can Email articles via Compuserve to Compuserve ID 72603,623 or via Internet to address 72603.623.compuserve.com. If you would prefer, you can mail me a 3.5-inch floppy disk with your article. The disk will be returned. All files should be in either a WordPerfect format or in ASCII. If you have any questions regarding how to submit a file, please call me at 499-9806. If you do not have access to a computer, you can FAX me your information at 499-0279, or simply mail it to me. Keep in mind that articles sent via FAX or in writing require me to re-type them, and I am a ssll000ww typist.

73 de N5ULZ, Kelley Hughes

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Driftnet Buoys Attract FCC Attention

by Al Mattis N5AFV

"You are here-by warned that operation of a unlicensed transmitter is a violation of Section 301 of the Communications Act, as amended, and may subject the operator to serious penalties as provided for in the Communications Act, including a maximum fine of \$10,000 or 1 year imprisonment, or both for the first offense, and for subsequent offense, a fine of \$10,000 or 2 year imprisonment, or both." These words appeared in a public notice recently issued by the Miami, Florida, office of the FCC to fishermen.

The fishermen targeted by the notice operate driftnet buoys or long-line fish beacons as the FCC prefers to call them. These marker buoys operate on frequencies from 1615 kHz to 1850 kHz. Al Underwood of Silver Springs, New York, has been leading a fight against the operation of driftnet buoys, and his efforts may have begun to pay off.

The FCC notice also states that "The information that has been supplied to the Commission indicates that many of these beacon units are operating on frequencies in the 1800-1900 kHz band. This particular band of frequencies is allocated to the amateur radio service and the operation of these beacons may cause interference to communications relating to the safety of life and property."

The FCC notice also states that the buoys can be licensed "under the Radio-Location Radio Service which is included in part 90 of the Commissions rules and Regulations....The beacons frequency of operation must be moved into the authorized band of 1715-1750 kHz....Operation of these beacons must be terminated immediately until a license is received or you will be libel for the unlicensed penalties as stated above....Upon receipt of the license the auto identifier

will have to be reprogrammed to reflect the new call sign."

The work of Al Underwood may not be totally responsible for drawing the FCC's attention to this problem. The AM broadcast band is about to be extended up to 1705 kHz. All other frequency users from 1605 to 1705 kHz will be displaced. The pressure is on to find usable frequencies. It is clear that all of the driftnet buoys will not fit into a 35 kHz band from 1715 to 1750 kHz. That is why driftnet buoys have begun to appear in the lower portion of the 160 meter band. But, the upward migration has not stopped there. Some monitors report recently logging driftnet buoys in the range of 2300 to 2500 kHz. Watch for future updates as the driftnet buoy controversy continues.

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Update on BVARC Spring Novice/Technician Class

by Larry Levy, WD5DRB

On very short notice, that the regular March 1994 BVARC meeting, BVARC President Doug Holley, KE5SR, asked for club support to conduct a Spring Novice/Technician class. A handful of people stood up and said "Can do" and we did.

With publicity consisting of only word-of-mouth, the first session was conducted March 21st at the Dairy Queen just east of Strake Jesuit school. Although Fr. Vincent Orlando, WA5ETS, graciously extended his classroom, the campus was closed for spring break. With one student, Lucille Proless, surrounded by three facilitators, Pete Norris, KJ5SS, Mel Thatcher, KB5ION, and myself, we made a sight talking about Ham radio while enjoying DQ treats. Week two, at Strake Jesuit, brought another student, Rev. Boyd Wagner.

Although the class size was small, with students outnumbered by facilitators, the effort can be deemed successful. Seven class sessions were held and BVARC member support was strong. Pete and Mel came out to the Monday sessions, full of inspiration and instruction. Charlie Prochaska, KG5KV, taught "his" one session about antennas and frequency allocations, complete with posters and charts. Steve Gottlieb, WA5OEN, set up an HF station (classroom mobile) and gave his famous "its in the box" talk, complete with handouts of a Block Diagram of an Amateur radio station and HF/VHF Amateur frequency allocation charts for each student.

Lucille has successfully passed her Element 2 and 3A exams and awaits her Technician Plus license from the FCC. She also is attending the Tuesday evening BVARC code classes conducted by Doug Holley, KE5SR and others. Boyd intends to take his exam on May 10th.

My "Thank you very much" go to each of our BVARC members who stepped forward to help: WA5ETS, Vincent, who made available his classroom facilities at the Strake Jesuit campus; KJ5SS, Pete, and KB5ION, Mel, for attending the Monday sessions, conducting segments of the sessions as well as keeping the learning environment "alive and interesting" for the students. KG5KV, Charlie, and WA5OEN, Steve, who each contributed their experience, complete with visual aids, to prospective amateur operators.

The next BVARC Novice/Technician class is planned for late summer. With interest, an early summer class can be set up. Just let President Doug or myself know.

73 de WD5DRB, Larry Levy.

SPRING CAMP-OUT

by Betty Wilcox, KA0TEN

BVARC campers shared a wonderful weekend together on April 9th in the Stephen F. Austin State Park.

Al, KK5W, brought fajita meat and his "secret sauce" for mouth watering tacos al carbon which Charlie, KG5KV, cooked over an open camp fire. We also whipped up some homemade pico de gallo. Beans were furnished by Norma, Bill's wife, and two friends of Al's, Eva and Kelly. Marie, Doug's wife, cooked up a large pot of Spanish rice. Pastries to numerous and sinful to mention crowded the table.

Al brought an HF rig as is his custom to set up in the pop-up camper and the guys strung up a dipole antenna in the trees. South Americans were pounding in on 20 meters as well as the New England states.

The evening meal was followed by a lively game of Trivial Pursuit. Two teams with about 6-8 people per team tried to out-shout each other. State trooper Ron, WA3WEE, joined the group for a taco and stayed for a few Trivial Pursuit questions before he had to continue on his rounds.

Night closed in on us with a slight threat of rain so we all huddled under the pop-ups canopy and continued to visit. No one was willing to call it a night except Cindy, the black lab and BVARC's unofficial mascot.

Nights are really short there and we soon found ourselves rolling out and looking for the coffee pot. Charlie, KG5KV, brought his large camp pot for "Cowboy" coffee. Folgers and just a hint of Chocolate Macadamia Nut coffee was the perfect eye-opener.

Even people who don't normally eat breakfast have a hard time turning down a camp-out breakfast. It, too, was pot luck. Dwayne, KB5YTA, and Mindy brought some sausage. Left over fajita meat, bacon, and sausage made a good beginning. Scrambled eggs and milk gravy over toast was "to die for".

I know it sounds like all we did was eat, but in the true BVARC tradition, eating rated very high. It is right up there with camaraderie and talking on the radio. By 1:45 the tents were folded and the pop-up secured. We had to be out by 2:00 pm. Not willing to miss a moment, we stayed until the very last minute before finally pulling out and calling it quits.

The World of Ten Ten

International

by Al Mattis N5AFV

Ten Ten International has announced that a new Ten Ten International Awards Guide is being prepared for publication. The guide will contain information about the requirements and cost of all Ten Ten International awards. A local Ten Ten member, Dave Prichard, KA5OVO, is editor of the awards guide. Ten Ten has numerous operating awards, including Worked All States, Worked All Counties, Worked All Continents, Worked All State Capitals, a DX Countries Award, a Prefix (WPX) award, and an OM/XYL award.

Local members of the Space Houston On Ten (S.H.O.T.) chapter continue working on the various chapter upgrades. Bruce Paige, KB5ZRV, Craig Culver, AB5OK, and Mike Bass, N7WLC recently completed their Enterprise upgrades, making them instant qualifiers for the chapter's basic certificate. The chapter is also pleased to welcome a new member, Mike Gentle, KB5TOJ, who recently joined the chapter. It is nice to see such a high level of participation in chapter activities.

Ten Ten paper chasers continue to be active on 28.345 MHz. Ten Ten chapters with specials for paper chasers this month include GB Ten (DX), Steel City (IL), Ocean State (RI), Brooklyn Bridge (NY), River City (CA) and Castle Craig (CT). The number of chapters with monthly specials has declined as the propagation continues to drop off in response to the solar cycle. A number of chapters have extended the length of their specials to compensate for the decline in band conditions.

Even though poor propagation conditions have existed much of the time on ten meters during the past few weeks, openings still occur. During a one-hour period on a recent Saturday, I was able to work nine stations in the northeastern US. DX openings have also been quite good. During the CQ World Wide WPX contest on March 26-27, 1994, I worked 14 countries on ten meters, including contacts with Europe and Africa. The openings are becoming fewer in number, and they last for shorter periods of time, but it is still possible to

make contacts on ten meters using low power and a wire antenna. Occasional E-layer openings have begun to appear, marking the return of summer propagation conditions. Look for the E-layer skip to become the dominant type of propagation during the next month.

Remember, the Houston S.H.O.T. (Space Houston On Ten) net meets every Tuesday evening at 8 pm local time on 28.488 MHz. All amateurs are welcome to check in, even if they do not have a Ten Ten number. If you are not a member of Ten Ten International and wish to join the organization, please check into the net. There are a lot of exciting activities in Ten Ten, and many friendly people can be found on the ten meter band.

Technician QSO Party a Success

by Bruce Paige, KB5ZRV

On April 23, 1994, BVARC held a Technician QSO Party. This was designed to prepare Technician Class Hams for the upcoming Field Day. Certificates were given to everyone that submitted a log to KB5ZRV, Bruce Paige, BVARC Contest Manager. The top Technician was KB5YTA, Dwayne Jones, with 67 contacts and 139 points. Behind him was Blake Present with 33 contacts and 66 points. Our next Technician QSO Party will be Sunday, May 22, 1994, from 6AM to 9PM. Technicians need to make contacts with as many other operators as possible. These contacts must be on the MERA 145.47 repeater. Contestants must exchange callsign, class of license, and location within the city (such as Alief, Sharpstown, etc.). Scoring will be one point for each Technician worked, two points for each General, three for each Advanced, and four for each Extra class contact worked. Multiply the number of points by the number of different locations worked for total points. Send you logs to Bruce Paige, KB5ZRV, P.O. Box 310, Alief, TX, 77411. All submitted logs will receive a certificate.

Satellites and Ham Radio

by Bruce Paige, KB5ZRV

We are going to discuss what is needed for a new amateur operator to work AO-21, an FM repeater in the sky. The first thing that is needed is the radio. It must be capable of transmitting on 70cm on 435.017 megahertz and receiving on 2m on 145.987 megahertz. It is best if you can monitor the receive frequency while you are transmitting. This way, you will know when you have successfully found the satellite in the sky and others can hear you. You can use a satellite ready radio or 2 separate radios.

Now, that we have the radio, we need a 2 meter receive antenna. Almost any antenna will work. A beam that can be pointed at the satellite is best but you do not need a beam to receive this satellite. There are many hams that operate from their vehicles with a vertical for their receiving antenna. A 70 cm antenna for transmitting should be a beam but a J-Pole will work. It can be as simple as a 6 element that can be held in your hand and pointed at the satellite or as elaborate as a 15 element by 2 cross yagi mounted on a azimuth and elevation rotor. The important thing to remember on the uplink antenna is that it needs to be pointed at the approximate position of the satellite.

To locate the satellite, you can ask someone that has a tracking program to print you out the location of the satellite for a particular pass. This list will have the azimuth and elevation in 1 to 3 minute increments. This will tell you where in the sky to point your antenna. If you have a computer, you can use Instant Track as I do or Orbit Track or one of many other tracking programs that are available both commercially and through shareware.

There are many hams that talk on AO-21 while they are mobile, I hope while their vehicles are stopped. They do have quite nice signals. It is amazing how good a 25-45 watt radio will sound. Power is not necessary. In satellite operation it is not how much power you have that makes you sound good, it is how good your receiving antenna is and how low you can keep line losses. This is one place where you do not want lots of splices in your coax and many connectors and extension pieces.

One important note is to never transmit if you cannot hear the satellite. If you do, you might be transmitting over someone else. Now, sit back, wait for the satellite to rise from the horizon, listen for the satellite, when you hear someone talking, wait for that moment of silence, point your antenna, key the mic and give your call. With any luck,

someone will come back to you and you have just made your first satellite contact. I am on almost every evening pass of AO-21 and hope to hear you one day.

This is just the basic requirements for working AO-21 if you are interested in more details, or have a topic you would like discussed feel free to write me via packet or internet at KB5ZRV @ AMSAT.ORG. That's K B 5 Z R V @ AMSAT.ORG, or you can contact me directly.

Next month, now that you are a pro on AO-21, we will discuss how to work AO-10 and AO-13, the work horses of amateur satellites. Future topics will include working telemetry only satellites such as Dove, working packet satellites such as FO-20. Working the MIR Space Station and the SAREX program on the shuttle. Working the Russian RS-10 and RS-12 satellites. What types of coax to use and we will even try to answer some questions on antennas and pre-amps. If you would like additional information on AMSAT you can write to:

AMSAT

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or call 301-589-6062

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A. Houston Marathon
B. K-9 Fun Run
C. MS Walk Around the World

D. Blue Bonnet Express

Cheek, Ralph	KB5DNT	A,B,C	Meleka, Patricia	KC5CMU	B,C,D
Cole, Mark	KB5WZB	B,D	Micnhimer, Terry	N5YKS	A
Cox, Lawrence	N5OUZ	A	Morrison, Henry	W5RIY	A,B
Culver, Craig	AB5OK	A	North, Max	N5TBI	A
Daze, Don	KC5AK	A	Orlando, Vincent	WA5ETS	A
Dessens, Bill	N5KXU	A,C	Parker, Harold	ND5F	A
Dillard, Ray	WA5F	A	Pollard, Randy	AK5G	A
Dunkelberger, Steve	N5JBL	A,B	Pritchard, Bret	N5VOY	A,B,D
Gentle, Michael	KB5TOJ	A	Roberts, Jack	KB5TMY	A
Guillet, Guy	KC5AGW	C	Sessions, Claude	K5HFY	B
Hacker, Carl	KB5LDY	A,B	Smith, Irv	KB5EXM	A
Hagerman, Dick	WB5SRN	A	Starr, Oraida	N5WMA	AB,C
Hall, John	KC5EHW	A	Stiver, Esther	KB5URT	A,B,C
Hardwick, Mike	N5VCX	A,B,D	Stiver, Frank	N5TGM	A,B,C
Hughes, Kelley	N5ULZ	A	Taylor, George	AB5LT	A
Jackson, Emmett	N5RZN	A	Truitt, Ed	KD5JC	A
Jones, Dwayne	KB5YTA	A	Turner, David	WB5TCW	A
Keng, Charles	N5XGW	A	Vaughn, John	KC5FEV	C,D
King, Bud	N5UOG	A,B,C	Wade, Don	WB5IBT	A
Kozinetz, Claudia	N5VCZ	A,B	Wardlow, John	KB5ZBR	A
Levy, Larry	WD5DRB	A	White, Bob	KF5ZL	A
Mattis, Allen	N5AFV	A	Wilson, Bill	KA5GHI	A,D
			Winford, Clem	WB5SHU	A

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