

### **B-VARC BULLETIN**

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

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

The Brazos Valley Amateur Radio Club (BVARC) was originally organized in 1978, primarily as an emergency communications group available to assist the communities of Missouri City and Stafford when required. Since that time, BVARC has grown and expanded it activities to become the most active Ham radio club in the southwest Houston area.

Today, BVARC is truly a general-interest club, with an impressive record of Public Service. This commitment to service has been recognized by the Amateur Radio Relay League with the coveted status of Special Service Club. We are proud of our members, who represent the finest in Amateur Radio. Membership is not limited to licensed operators, but is open to anyone with an interest in Amateur Radio. Meetings are held at 7:30 pm on the second Thursday of each month at the Sugar Land Community Center. Talk-in assistance is available on the 145.47 and 442.5 MHZ repeaters.

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

Issue: 7 olume: 17

July 1994

ADDRESS CORRECTION REQUESTED

From: Brazos Valley Amateur Radio Club, Inc.

P. O. Box 1630

Missouri City, Texas 77459





### B-VARC MEETING SCHEDULE

Thursday, August 4

7:30 pm

**Board of Directors Meeting** Sugar Land Community Center

hursday, August 11

7:30 pm

General BVARC Membership Meeting - Sugar Land Community

Center

Allen Mattis N5AFV 5314 Wigton Drive Houston, TX 77096 11....11....111....1.1....111......111

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August 1994
B-VARC Calendar of Events

6 7:30 AM B-VARC Breakfast 9:00 AM Hou. Emergency Management NET 146 84 (9:30 on 3 905)	7:30 AM B-VARC Breakfast 9:00 AM Hou. Emergency Management NET 146.84 (9:30 on 3:905)	20 7:30 AM B-VARC Breakfast 9:00 AM Hou. Emer- gency Management NET 146.84 (9:30 on 3:905)	7:30 AM B-VARC Breakfast 9:00 AM Hou. Emergency Management NET 146.84 (9:30 on 3.905)	S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 25 27 28 29 30
<i>5</i>	12	61	26	7 - 8 - 12 - 12 - 12 - 12 - 12 - 12 - 12
4 7:30 PM B-VARC Board Meeting: Sugar Land Community Center	11 7:30 PM Membership Meeting Sugar Land Community Center	18	25	S M T W T 3 4 5 8 7 10 18 19 19 14 17 25 25 27 28
3 8:00 PM B-VARC Rag Chew 3.960 (Busy? +3 Khz)	10 8:00 PM B-VARC Rag Chew 3.960 (Busy? +3 Khz)	17 8:00 PM B-VARC Rag Chew 3.960 (Busy? +3 Khz)	24 8:00 PM B-VARC Rag Chew 3:960 (Busy? +3 Khz)	31 8:00 PM B-VARC Rag Chew 3:960 (Busy? +3 Khz)
2 8:00 PM 10-10 SHOT Net 28.488 10:00 PM AMSAT 147.10	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	16 8:00 PM 10-10 SHOT Net 28.488 10:00 PM AMSAT 147.10	23 8:00 PM 10-10 SHOT Net 28.488 10:00 PM AMSAT 147.10	30 8:00 PM 10-10 SHOT Net 28.488 10:00 PM AMSAT 147.10
I 7:30 PM 34-94 Swap Net 146.94 8:00 PM Fort Bend County Emergency Net 145.49 9:00 PM BVARC Net	Net Ounty 5.49	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	22 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	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
Sunday	7 7:30 PM A.R.E.S. Net 147.30	14 1:30 PM Texas State RACES Net 7.248 7:30 PM A.R.E.S. Net 147.30	21 7:30 PM A.R.E.S. Net 147.30	28  i PM Texas State  Tr ES Net 7.248 7.30 PM A.R.E.S. Net  147.30

Please report any changes or corrections

alley Hughes, N5ULZ, 499-9806

### Notes From the President

by Doug Holley, KE5SR

BVARC had their annual field day June 25-26. The reservoir did rise, as usual, and the field day site had to be moved at the last moment from Bear Creek Park, the appointed site, to the Katy County Park on Morton Road. To our surprise, this site was much better than the Bear Creek site. Plans are for next year's field day site to remain at the Katy County Park. The site and facilities were great. Field Day report will be covered by a separate write-up in the newsletter.

A good number of our members and friends attended a Skywarn seminar held at the George Library on June 29th. The seminar was conducted by Mr. Gene Hafeles of N.O.A.A. I had attended several Skywarn seminars in past years, but found this updated presentation more interesting and very well presented. Some of the information I recalled from previous seminars, but for the most part, the information was new. I feel that we are better prepared to recognize and respond to storm warnings as a result of the seminar. I will work with our membership in the future to integrate them with the weather nets held on 146.84 MHz and 145.49 MHz. Supporting weather nets like these helps us help others.

.et's not forget the seminar dealing with hazardous materials that are transported through our area. This seminar will be held at the same location on September 6. Please put this on your schedule calendar. I will see you there.

Code classes will finish up in four weeks. Thus far we have learned the characters, prosigns, and numbers. Code speed has been mastered at 5 words per minute, and we are working up to 13. Larry Levy (WB5DRB) will start a theory class for the novice and no code technician on July 18. The classes will be held at Strake Jesuit College Preparatory in Houston from 7 to 8 p.m. each Monday evening. Testing sessions will be held after completion on September 13 at the same location. Please call Larry at 777-0008 if you are interested in the classes so that he may schedule you.

### BVARC RAG CHEW CHECK-INS

3.960 MHz 8:00pm Wednesdays Compiled by Mel Thatcher, KB5ION

June 1, 1994

KB5ION (Net Control), W5EFB, N5ECT, N5AFV, KB5LFU, KE5SR, WA5OEN, KB5TIB, KB5PAJ, KI5SC, AB5OK, KB5KJTW5AC, N5JBL, N5YKR, KB5ZRV

June 15, 1994

AB5OK (Net Control), N5KXU, N5CPA, N5OAC, N5YKR, KI5SC, KB5PAJ, KG5KV

June 22, 1994

KESSR (Net Control), W5EFV, N5AFV, N5CPA

June 29, 1994

W5IHY (Net Control), WA5OEN, N5AFV, KI5SC, KB5PAJ, WN5A, KB5KV, N5KXU, N5YKR

This July's program will be our most popular program of the year, our ice cream social. Claude Sessions is handling this event for the club. If you can bring ice cream, cookies, or other goodies, please give him a call.

Next month's program will be a good one on "QCWA" presented by Randy Pollard, AK5G. See you at the meeting.

I Speak - .- -..

#### Randy Pollard, AK5G

Certified Public Accountant

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### 1994 BVARC Officers and Directors

President	Doug Holley, KE5SR	342-8028
	Melvin Thatcher, KB5ION	
	Sam Wilson, N5CPA	
	Bud King, N5UOG	
	Vincent Orlando, WA5ETS	
	Claude Sessions, K5HFY	
2-Year Director	Vic Ricjard, N5NAS	461-3331
	Bill Dessens, N5KXU	
	Betty Wilcox, KA0TEN	

### Board of Directors Meeting

by Bud King, N5UOG

A quorum of the BVARC Board of Directors met at the Sugar Land community center on June 2, 1994. This was the sixth meeting of the Board for the 1994 calendar year. The following Board members were in attendance: Doug Holley, KE5SR; Mel Thatcher, KB5ION; Sam Wilson, N5CPA; Victor Richard, N5NAS; Claude Sessions, K5HFY; Bill Dessens, N5KXU; and Bud King, N5UOG. President Holley opened the meeting at 7:30 PM. The minutes of the May meeting were read and approved with corrections.

Mel Thatcher reported the Rag Chew check-ins holding at about fifteen.

The Club Treasurer, Sam Wilson, reported a balance of \$4029.81 in the treasury as of May 31, 1994. The Treasurer's report was unanimously approved.

President Holley confirmed that "Field Day" would be held Saturday, June 25 and Sunday, June 26 at Bear Creek Park. Pavilion number three is the chosen spot, if it is not under water. Should a site change be required, an announcement will be made in time to notify all interested parties. The official starting time for Field Day will be at 1:00 PM Saturday, and continue nonstop for 24 hours. A Bar-B-Q dinner will be served at 5:00 PM Saturday to the first 85 persons having paid tickets. For those operators who spend the night, a breakfast will be prepared and served on site. Doug emphasized the need for additional manpower to assist in erecting the many antennas which will be used.

In a verbal report presented by Mike Hardwick, N5VCX, concerning the activities of the Public Service Net, he indicated that he would be attending an ALA meeting in the near future. There are no changes in upcoming Public Service events to report.

Sam Wilson notified the Board that the BVARC membership stands at 210 as of June 1, 1994.

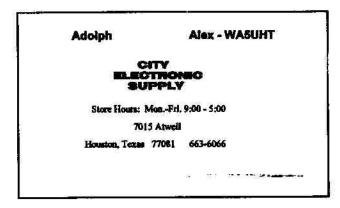
A motion was passed unanimously to authorize Bill Dessens to spend up to \$100 for Helium and other supplies that will be used in the Field Day balloon project.

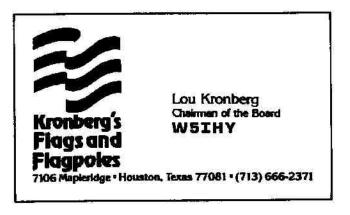
A unanimous motion was made requiring that an inventory list of all known BVARC property be prepared. The list is to include the type, quantity, location, and Name, callsign, and address of the caretaker. The list will be updated and maintained current by the Club Treasurer with a copy supplied to the Corresponding Secretary.

Discussions were held concerning the following items:

A Skywarn class to be held June 29; the Second Technicians QSO Party held on May 22; and the BVARC volunteer work party that helped the Bellville Amateur Radio Club erect their new tower on May 22nd. More information concerning this event will be written at a later date.

President Holley adjourned the meeting at 8:45 PM.





### Results of the June 14th Amateur Exams

by Harold Parker, ND5F

B-VARC again sponsored and administered the ARRL's Amateur Radio Examinations that were held on Tuesday evening, June 14, 1994 at Strake Jesuit College Preparatory in Houston.

#### V.E. TEAM:

Benny Owens, K5KV Harold Parker, NDSF Joe Tarrant, K5DIY

#### Assistants:

Carl Albrecht, AA5JW Cass Germany, KG5IT Craig Culver, AB5OK Don Schexnailder, AB5IV

A total of 34 exams were administered during the evening to 13 applicants. Seven (7) unlicensed candidates received their new licenses; 1 Novic, 3 Technician Plus and 3 Technicians. One (1) other applicant upgraded with a total of 21 elements passed. The overall "pass rate" for the evening was 62%.

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

Raymond Barron - Novice
Nancy Cunnigham - Element 2
Kenneth Drake - Technician
Sandra Gottlieb - Technician
Jean Hamilton - Technician Plus
Clarence Hotalen - Element 2
Jon Moore - Technician
Pat Price - Element 2
Paul Roeder - Technician Plus
Don Simon, W5JPD - Element 1C
Dale Wilpers - Technician Plus
Robert Wittner, KC5EHF - Advanced

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

### Bulletin Publish Date Change

by Kelley Hughes, N5ULZ

In order to provide a more responsive Bulletin to our members, the publish date for the Bulletin will move to the 15th of the month. This will allow any pertinent information developed at the Board meeting or the General meeting to be distributed to the membership in a more timely manner.

in order to accommodate this change, the Bulletin is arriving a little later than normal this month. Also, the new deadline for submission of articles will now be the 10th of each month. For example, for an article to be considered for publication in the August 15 Bulletin, it should be received no later than August 10th.

As always, 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. The files can be in either ASCII or some type of word processor format. 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 sslloooww typist.

73 de N5ULZ, Kelley Hughes

Special Thanks to



For providing the facilities and equipment to print the BVARC Bulietin

### The World of Ten Ten International

by Al Mattis N5AFV

Ten Ten International has a new awards manager. Due to unforseen circumstances, Lonnie Butler, N9OSM, had to relinguish his position as manager for the 1000+ bar awards. Tom Henderson, K4CIH, will fill the position on a temporary basis until a new manager is selected. The Ten Ten election for 1995 officers is underway. Most members received their ballots in the mail during late June. If your dues are paid up and you did not receive a ballot, contact Gerry Gross, WA6POZ, 643 North 98th Street #142, Omaha, NE 68114.

The Sixth Annual Texas Hill Country Ten Ten Gathering was held May 22, 1994, near New Braunfels at the home of Jack Moore, K4NF. Approximately 35 persons from Texas, Rhode Island, Mississippi, and New Mexico attended this year's event. Most of the amateur operators at the gathering were Ten Ten paper chasers. Chapter heads or certificate managers from nine chapters attended the event. The next big event for paper chasers is the Las Vegas 10-10 Bash scheduled for August 18-20, 1994, at the Hacienda Hotel and Casino. Details may be obtained from KOPVI, P. O. Box 229, Byers, CO 80137, with an SASE.

The Houston S.H.O.T. chapter wishes to remind all members of the upcoming SSB QSO party to be held August 6-7, 1994. If you are interested in participating, check into the S.H.O.T. net for final details the week prior to the QSO party. If you have been meaning to get a ten ten number and join in the fun, do it now so that you can participate in the QSO party.

Ten Ten paper chasers continue to be active on 28.345 mhz. Ten Ten chapters with specials for paper chasers this month include Texas Gamblers (TX), Steel City (IL), Busy Bee (CA), Quahog (RI), Brooklyn Bridge (NY), Branding Iron (TX), and Branding Iron II (TX). Many paper chasers are enjoying the summer propagation and the opportunity it affords to work new stations.

The summer E-layer openings have been spectacular in recent weeks. Signals have been very strong at times, often accompanied by pronounced QSB. The summer propagation conditions may bring E-layer

openings at any time of the day or night, so check ten meters occasionally to see if it is open. In general, domestic propagation has been good. DX propagation has generally been poor, with occasional openings to Latin America and the South Pacific.

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..

### **Public ServiceUpdate**

by Mike Hardwick, N5VCX

Summertime is upon us and the public service events have slowed down due to the hot weather. However there are a couple events still scheduled over the next few weeks if you would like to work one. The Flapjack 50 is set for June 12 and will be handled by ECHO. If anyone is interested please call Don Daze, KC5AK, at 464-7286. I know that he would be glad to have you call to volunteer.

The Katy Flatland bicycle ride will be held on July 10, and Mark Cole, KB5WZB, will be coordinating the event. I know there are several positions open on the ride. Give Mark a call at 479-1800.

I am thinking about having a public service training/question and answer session sometime in August. If anyone is interested in coming to the session either for new knowledge or to help aquaint others with your knowledge and past experiences, please give me a call at 771-4625 or 443-8636. The session will probally be held around the middle of the month somewhere near downtown Houston. Call me and let me know what you would like to learn about or tell about the PS events that are worked though the year.

If anyone has any ideas on any new type of events that would be new and interesting for BVARC to work, give me a call so I can getthem put on the calender.

Enjoy the summer and get ready for the events in October.

73 de N5VCX, Mike

## CERTIFICATE TO COMMEMORATE LUNAR LANDING

by Al Mattis N5AFV

The Houston S.H.O.T. (Space Houston On Ten) chapter of Ten Ten of International will celebrate the 25th anniversary of man's first landing on the moon. Many of the early members of the chapter were employed by NASA, and the chapter's awards are named after various space programs. It is very fitting that the S.H.O.T. chapter celebrates this significant anniversary of one of man's greatest accomplishments.

To qualify for the certificate, you must make a contact on ten meters with any local member of the S.H.O.T. chapter who has the Enterprise upgrade and resides in the Houston metropolitan area. This contact must be made between July 20 (the anniversary of the lunar landing) and August 31, 1994. Log information for the contact should be sent to the chapter certificate manager, Allen Mattis, NSAFV, 5314. Wigton Drive, Houston, TX 77096-5115. Include a business size SASE with one FCS, or to receive the certificate unfolded, a large manila envelope with two FCS. Please do not send a QSL card for the contact to the certificate manager.

It is anticipated that many operators across the nation will want to qualify for the certificate. If you are a S.H.O.T. member and hold the Enterprise upgrade, please make an attempt to operate on ten meters at least once during the period. If you are a S.H.O.T. member and do not yet have the Enterprise upgrade, you may wish to consider upgrading prior to July 20th. The Ten Ten International Summer SSB QSO Party will be held August 6-7, 1994, and many operators will qualify for the certificate at that time. If you wish to qualify for the certificate, check into the Houston S.H.O.T. net any Tuesday evening at 8:00 pm local time on 28.488 mhz between July 20 and August 31, 1994. This variation of a special event station gives all Houston area amateurs with ten meter privileges the opportunity to participate and help celebrate the 25th anniversary of man's first landing on the moon.



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### M.E.R.A. Repeater to Hold Meeting August 16, 1994

by Randy Pollard, AK5G

The Memorial Emergency Radio Association (M.E.R.A.) would like to thank each and every one who contributed money to us at the past BVARC meetings. Your donations will allow us to continue to improve the reliability and performance of the repeaters for your Ham use. M.E.R.A. will have an open meeting at the Strake Jesuit School, Rm. 501, at 7:30 PM on AUgust 16, 1994. We hope that you will attend. We will discuss recent additions and improvements to the repeaters and all will have an opportunity to make suggestions for improvements and discuss any problems you may have enountered.

M.E.R.A. Board of Directors: AK5G, WN5A, ND5F, WA5F, N5KXU, N5UOG, N5NAS, N5AFV, KA0TEN, WB3HZP

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### Satellites and Ham Radio

by Bruce Paige, KB5ZRV

Last time we talked about working AO-21 with some simple ham equipment. Now that you have had a little experience, we are going to move to AO-13.

Remember that AO-21 uses FM 70cm for the uplink and FM 2m for the downlink? Well, we are still going to use 70cm for the uplink and 2m for the downlink but we are now going to use upper side band on 2m and lower side band on 70cm. You thought you were confused before on transmitting on one band and listening on another, this is real confusing. Just remember that you are uplinking on 70cm lower side band and that the transponder is called an inverting transponder.

That means that what goes up is reversed on the down. Lower side band up and upper side band down. It's not too hard to remember, you only have to set it up in your radio once. This is referred to mode B operation. Mode S which is 70 cm up and 2.4 gig down will be discussed later.

The radio can be two separate radios that are capabable of transmitting side band signals or you can use a specialty radio designed for satellite use such as the Yaesu 736R, the ICOM 970H or the Kenwood TS 790A. Some have features the others do not and some are easier to use.

You need to ask a friend which one he uses, find out who likes what features on the radios etc. I now use an ICOM 970H and used to use the Yaesu 736R. All three of these radios allow you to recieve while you are transmitting. This is the unique feature of satellite radios. Along with the ability to track each vio in opposite directions.

Now the antennas. You really have to have a beam for both receive and transmit. This satellite is much further out in space and you must make sure that as much of your signal reaches the satellite and as much of its signal reaches you. A good 2m beam and 70cm beam is a must. Even better is an actual satellite antenna which is a crossed yagi. That means that it has the same number of elements in the horizontal plane as it does in the vertical plane. This also makes the antenna what we call circular polarized. Remember when the elements are horizontal to the ground, the polarization is horizontal and when they are vertical to the ground, the polarization is vertical. Well, now you have circular. Since both sets of elements are energized at the same time you create a circular field of radiation.

The satellite is spinning and you never know which

polarization -your signal will need so we use circular polarization which works almost all the time. We do have a little hitch on the circular field and it is whether or not the field radiates to the left or the right. For now, we will not discuss that.

Remember, never transmit if you cannot hear the satellite. If you do, you might be transmitting over someone else.

To locate the satellite, just as we did on AO-21, you need to have a satellite tracking program or have someone print you out the position of the satellite for a particular pass. For pointing your antennas, you need both azimuth and elevation rotors. The azimuth will point your antenna from 0 to 360 degrees and the elevation rotor will raise the antenna from 0 degrees to 90 degrees straight up. The rotors can be separte rotors or a combination rotor such as the Yaesu 5400. You should be careful, if you are later going to purchase an automatic tracking board for your computer. Some rotors will have to have relays inserted to open and close the manual switches on the front of the rotor control box. Others are prewired for the special cable that will come from the interface card.

You must point the antennas towards the satellite. During a normal pass, you may be able to set the antenna and not have to adjust it for 10-15 minutes. I have held on a QSO with a station in lowa for 45 minutes and never touched the antenna. AO-10 and AO-13 because of their height, reaching 34,000 kilometers, seem to hang in the sky and require little adjustment. Of course, when it is rising and setting close to the horizon, you will have to track it and adjust your antenna very often but when it is high in the sky, it's fun. We call the rise AOS for aquisition of signal and the set, LOS for loss of signal.

This is the first of two parts for working AO-13. Next time we will continue on the frequencies used by AO-13 and how to tune your radio and find your signal.

Future topics will be working telemetry only satellites such as Oove, types of coax for your satellite station. Working the MIR Space Station and the SAREX program on the shuttle. Working the Russian RS-10 and RS-12 satellites.

If you would like additional information on AMSAT you can write to

AMSAT 850 Sligo Ave Silver Springs, Maryland 20910 or call 301-589-6062 that's 301-589-6062

### 1994 B-VARC PUBLIC SERVICE HONOR ROLL

Compiled by Mike Hardwick, N5VCX

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

### D. Blue Bonnet Express

Cheek, Ralph	KB5DNT	A,B,C
Cole, Mark	KB5WZB	B,D
Cox, Lawrence	N5OUZ	Α
Culver, Craig	AB5OK	Α
Daze, Don	KC5AK	Α
Dessens, Bill	N5KXU	A,C
Dillard, Ray	WA5F	Α
Dunkelberger, Steve	N5JBL	A,B
Gentle, Michael	KB5TOJ	Α
Guillet, Guy	KC5AGW	C
Hacker, Carl	KB5LDY	A,B
Hagerman, Dick	WB5SRN	Α
Hall, John	KC5EHW	Α
Hardwick, Mike	N5VCX	A,B,D
Hughes, Kelley	N5ULZ	Α
Jackson, Emmett	N5RZN	Α
Jones, Dwayne	KB5YTA	Α
Keng, Charles	N5XGW	Α
King, Bud	N5UOG	A,B,C
Kozinetz, Claudia	N5VCZ	A,B
Levy, Larry	WD5DRB	Α
Mattis, Allen	N5AFV	Α

Meleka, Patricia	KC5CMU	B,C,D
Micnhimer, Terry	N5YKS	Α
Morrison, Henry	W5RIY	A,B
North, Max	N5TBI	Α
Orlando, Vincent	WA5ETS	Α
Parker, Harold	ND5F	Α
Pollard, Randy	AK5G	Α
Pritchard, Bret	N5VOY	A,B,D
Roberts, Jack	KB5TMY	Α
Sessions, Claude	K5HFY	В
Smith, Irv	KB5EXM	Α
Starr, Oraida	N5WMA	AB,C
Stiver, Esther	KB5URT	A,B,C
Stiver, Frank	N5TGM	A,B,C
Taylor, George	AB5LT	Α
Truitt, Ed	KD5JC	Α
Turner, David	WB5TCW	Α
Vaughn, John	KC5FEV	C,D
Wade, Don	WB5IBT	Α
Wardlow, John	KB5ZBR	Α
White, Bob	KF5ZL	Α
Wilson, Bill	KA5GHI	A,D
Winford, Clem	WB5SHU	Α

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will be held at
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8900 Bellaire Boulevard

beginning July 18, 1994 7:00 pm

For information, call: Larry Levy, WD5DRB (713) 777-0008

QST!

QST!

QST!