

B-VARC BULLETIN

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

Editor-in-Chief: Irv Smith, KB5EXM 437-4803
Production Manager: Roland Torres, KB5EQH 933-4143

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 which offers examinations in all levels of HAM licenses.

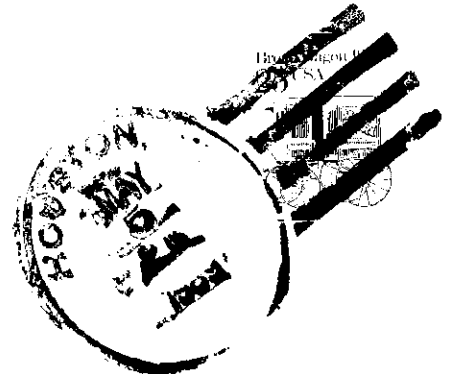
For information about the club and any of its activities, please call Stu Lamkin, WB5IGG, (713) 777-3345.

Volume: 12 Issue: 5

May 1989

ADDRESS CORRECTION REQUESTED

From: Brazos Valley Amateur Radio Club, Inc.
P.O. Box 1630
Missouri City, TX 77459
Telephone: (713) 777-3345



B-VARC Meeting Schedule

Thursday, May 11	General Meeting
7:30 pm	Missouri City Fire Station
	(Meet at Hitching Rail for BBQ @ 6:30)
Saturday, May 13	Picnic
1:00 pm	Doug & Marie Holley's
	Rosenberg
Thursday, June 1	Board Meeting
7:30 pm	Missouri City Fire Station

Stu Lamkin WB5IGG
7401 Heilig
Houston, Tx 77074

B - V A R C C A L E N D A R - M A Y 1 9 - 8 9

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
<p>NOTE: Meets meet weekly even if not shown</p> <p>* THIS & OTHER V.E. EXAMS: Contact Stu (777-3345)</p>	<p>ARES 2000 hrs B-VARC NET 2100 hrs 147.30 145.47</p>	<p>10 X SHOT 2000hrs ANSAT 2200 hrs 2848hrs 145.45</p>	<p>B-VARC RAB CHEW 2030 hrs 3.968 (Up 3 kHz, etc if busy)</p>	<p>C.M. NET 2030 hrs 1950 hrs B-VARC BOARD MEETING 1950 hrs M.C. FIRE STATION #1 147.32</p>	<p>LUNCH BUNCH 1130 hrs: LOCAL VARIETIES (CHECK IN ON 442.5 OR 443.15)</p>	<p>C.M. NET 2030 hrs B-VARC BREAKFAST 0730 hrs DENNY'S (Shp' km) 147.32</p> <p>NOTE: THE MOTHER'S DAY EVENT HAS BEEN CANCELLED !!</p>
<p>7 HOUSTON RACES 2000 hrs 147.30 145.47</p>	<p>8 ARES 2000 hrs B-VARC NET 2100 hrs 147.30 145.47</p>	<p>10 X SHOT 2000hrs ANSAT 2200 hrs 2848hrs 145.45</p>	<p>B-VARC RAB CHEW 2030 hrs 3.968 (Up 3 kHz, etc if busy)</p>	<p>C.M. NET 2030 hrs 1950 hrs M.C. FIRE STATION #1 (880 & 1800 & HITCHING RAIL) 147.32</p>	<p>LUNCH BUNCH 1130 hrs: LOCAL VARIETIES (CHECK IN ON 442.5 OR 443.15)</p>	<p>C.M. NET 2030 hrs B-VARC BREAKFAST 0730 hrs DENNY'S (Shp' km) 147.32</p> <p>NOTE: THE MOTHER'S DAY EVENT HAS BEEN CANCELLED !!</p>
<p>14 HOUSTON RACES 2000 hrs 147.30 145.47</p>	<p>15 ARES 2000 hrs B-VARC NET 2100 hrs 147.30 145.47</p>	<p>10 X SHOT 2000hrs ANSAT 2200 hrs 2848hrs 145.45</p>	<p>B-VARC RAB CHEW 2030 hrs 3.968 (Up 3 kHz, etc if busy)</p>	<p>C.M. NET 2030 hrs 1950 hrs M.C. FIRE STATION #1 (880 & 1800 & HITCHING RAIL) 147.32</p>	<p>LUNCH BUNCH 1130 hrs: LOCAL VARIETIES (CHECK IN ON 442.5 OR 443.15)</p>	<p>C.M. NET 2030 hrs B-VARC BREAKFAST 0730 hrs DENNY'S (Shp' km) 147.32</p> <p>PICNIC RAIN DATE</p>
< MOTHER'S DAY >						
<p>21 HOUSTON RACES 2000 hrs 147.30 145.47</p>	<p>22 ARES 2000 hrs B-VARC NET 2100 hrs 147.30 145.47</p>	<p>10 X SHOT 2000hrs ANSAT 2200 hrs 2848hrs 145.45</p>	<p>B-VARC RAB CHEW 2030 hrs 3.968 (Up 3 kHz, etc if busy)</p>	<p>C.M. NET 2030 hrs 1950 hrs B-VARC BOARD MEETING 1950 hrs M.C. FIRE STATION #1 147.32</p>	<p>LUNCH BUNCH 1130 hrs: LOCAL VARIETIES (CHECK IN ON 442.5 OR 443.15)</p>	<p>C.M. NET 2030 hrs B-VARC BREAKFAST 0730 hrs DENNY'S (Shp' km) 147.32</p>
<p>28 HOUSTON RACES 2000 hrs 147.30 145.47</p>	<p>29 ARES 2000 hrs B-VARC NET 2100 hrs 147.30 145.47</p>	<p>10 X SHOT 2000hrs ANSAT 2200 hrs 2848hrs 145.45</p>	<p>B-VARC RAB CHEW 2030 hrs 3.968 (Up 3 kHz, etc if busy)</p>	<p>C.M. NET 2030 hrs 1950 hrs B-VARC BOARD MEETING 1950 hrs M.C. FIRE STATION #1 147.32</p>	<p>LUNCH BUNCH 1130 hrs: LOCAL VARIETIES (CHECK IN ON 442.5 OR 443.15)</p>	<p>C.M. NET 2030 hrs B-VARC BREAKFAST 0730 hrs DENNY'S (Shp' km) 147.32</p> <p>FUTURE MEETINGS: JUNE 1: BOARD MEETING JUNE 8: GENERAL MEETING</p> <p>FUTURE B-VARC & PUBLIC-SERVICE EVENTS: JUNE 24-25: FIELD DAY BEAR CREEK PARK HERB (1562M)</p>
< MEMORIAL DAY >						

Brazos Valley Amateur Radio Club

Member Interest Survey

Bring to a Club meeting, or mail to:

B-VARC
P. O. Box 1630
Missouri City, TX 77459

This survey is intended to give you the opportunity to tell us what your interests are, so that we may better match you to activity coordinators. Also, we'd like to know something about the operating modes and equipment you have available. This would potentially be useful in responding to an emergency, because it would allow us to plan how best to utilize each member's resources.

Equally important, this survey will allow you space to offer any comments or feedback about any aspect of B-VARC.

Name _____ Callsign _____ Date _____

Please indicate the types of events in which you would like to participate:

- | | | |
|--|---|---|
| <input type="checkbox"/> MS-150 | <input type="checkbox"/> Fun Runs | <input type="checkbox"/> Field Day |
| <input type="checkbox"/> Mother's Day | <input type="checkbox"/> Volunteer Examiner | <input type="checkbox"/> License Class Instructor |
| <input type="checkbox"/> License Class Student | <input type="checkbox"/> ARES Practice | <input type="checkbox"/> Program Committee |
| <input type="checkbox"/> _____ | | |

Please indicate the bands/modes on which you can operate:

	160	80	40	30	20	18	15	12	10	6	2	220	440
CW													
SSB													
FM													
Packet													

Please offer any comments or feedback you wish: _____

VOLUNTEER EXAM SESSIONS - MAY & JUNE 1989

Stu Lamkin WB5IGG

Following are Amateur Radio license examination sessions scheduled for this area during the next two months according to ARRL/VEC. In addition to the Houston Metro Area, those scheduled within a radius of 200 miles are included because we have started receiving inquiries about such when none are scheduled for the Houston vicinity. The listing information included A. Sponsoring group, B. Date & place, and C. The person to contact for additional details.

- 1.A. Brazos Valley ARC
B. May 9 & June 13 in Houston TX
C. Stu Lamkin WB5713-777-3345
- 2.A. Houston Echo Society
B. May 20 in Houston TX
C. Roger Simonson, 713-787-2766
- 3.A. Golden Triangle Exam. Comm.
B. June 10 in Beaumont TX
C. Harold Bartlett, 409-898-1350
- 4.A. Heart of Texas ARC
B. May 13 in Waco TX
C. Jane Land, 817-859-5374
- 5.A. Sam Houston ARK
B. June 10 in Cleveland TX
C. Sam Neal, 713-592-2257
- 6.A. San Antonio RC
B. May 6 in San Antonio
C. William Davis, 512-735-1622
- 7.A. Southwest Louisiana ARRC
B. May 6 in Lake Charles LA
C. Audry Pizanie, 313-477-2555

The ARRL Letter March 13, 1989

TRAVELING THIS SUMMER?

If you are planning a trip to a foreign country other than Canada and are interested in the possibility of operating there, you must apply for a license even if the US has a reciprocal Operating Agreement with that country.

You can obtain information about operating from virtually any country by writing the Regulatory Information Department at HQ. Please include an SASE. Remember that many countries require a minimum of 4-6 weeks lead time for processing of reciprocal permit requests, although some do offer walk-in processing. Traveling to Canada? US amateurs traveling to VE-land are reminded that the US has automatic reciprocity with Canada. All that is needed for operation north of the border is your original license. Visitors must use the appropriate VE/VO/VY identifier, such as N4YE/VE2 when visiting Quebec.

ON-LINE QSL SEARCH AVAILABLE

Do you have several dozen calls that you can't seem to find in the *Callbook*? No time to look up all those addresses for WAS? There is now help available.

Buckmaster Publishing now provides an on-line Hamcall service that gives subscribers access to the names and addresses of the current 494,115 listed hams. All you need is a computer terminal and modem to bring this information into your shack!

A subscription to the service costs only \$29.95 per year, and provides you with unlimited use. The only additional expense will be your phone calls to Virginia to "look up" the call signs.

To take advantage of this service, write Buckmaster Publishing, Mineral, VA 23117, or call toll free 1-800-282-5628. (TNX Westlink)

NEWSLETTER NOTES

PICNIC

Doug Holley (KE5SR), and his XYL, Marie, are again offering their home for the B-VARC picnic. It will be on Saturday, May 13th, with a rain date of May 20th.

Suzanne (KB5BAY) is coordinating the event. The BBQ meat portion will be furnished, but B-VARC members are asked to bring something (salad, carton of soft drinks, etc) to be shared with the others. Call her at 666-1542 to make your reservation.

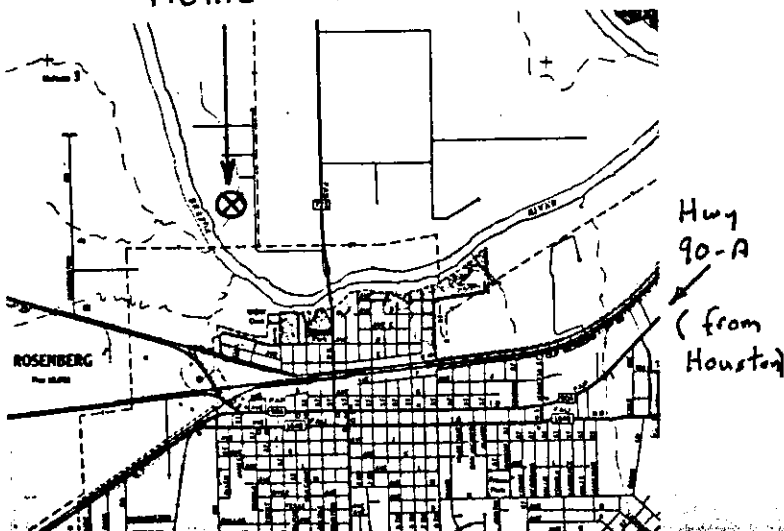
All family members and guests are invited. The price is \$3.50 per adult and \$1.50 per child 5 to 12; younger children are free.

Doug and Marie's large tree-covered place looks out over the Brazos River. It is just north of Rosenberg, off of Hwy 723. From almost all directions, you should drive west on US 90-A (South Main) into Rosenberg, and turn north on Houston Ave. Immediately after crossing the river, turn left onto Baker.

Their house is a large brown one, but look for the B-VARC sign because everyone will be out of sight in the rear. If you get lost, talk in is on 145.47 or perhaps 147.300.

The event starts around noon, and we expect to eat at 1:30. See you there!

Picnic Site



B-VARC's SPRING NOVICE COURSE WINDING DOWN ... "ELMER" PROGRAM STARTING

By Stu Lamkin (WB5IGG)

A record preregistration resulted in the largest class ever for a B-VARC Novice Class license course, which held its first weekly meeting on Feb 27 in Room 501 at the Strake Jesuit College Preparatory School at 8900 Bellaire Blvd.

As of this writing -- April 25 -- one student has passed his Technician exams, and seven others are waiting for their Novice tickets.

In addition, two have made it over the 5 WPM hurdle, and seven others have passed their Novice theory exams.

Those who now are awaiting their first Amateur Radio Operator call signs are: Randy Reimers for his 1x3 Technician, and for their Novice tickets: Lois Andrews, Benny Bludworth, William Chow, Mark Jud, Kirby Lyde, Matt Parker and Claire Rogers.

The great instructor team is enthusiastic about this class, and will continue the class meetings for another 3 or 4 weeks. In the June BULLETIN we'll have a final report on this fine class.

Several of the class members asked how they can continue to get help as they venture into the world of ham radio. The answer is that we are starting an "Elmer" program. All club members, especially the experienced ones, are asked to help. Susan (KB5ICO) is going to coordinate this. Call her at 498-7425 to volunteer.

If you have any B-VARC club items or equipment, let Herb (N5GZW) know. We may be able to use it at Field Day.

Field Day will be at Bear Creek Park. Details next month.

**SCOOP!! FIRST LOOK AT
NEW CODE-FREE TEST
QUESTIONS!!!**

You may have heard that if the No-Code license is approved, the written test will be harder.

An inside source at the FCC has supplied us with one of the new questions. I think it has something to do with resonant frequencies of antennas.

It might be easier just to learn "Morris Code" as member David Lance (KB5EYK) did according to the newspaper story. (Courtesy of the Fort Bend Mirror.)

P.S., This should have been run in April issue.

(The question is to derive Equation A-39)

From Eq. A-3 we obtain the relation

$$g_x \delta x + g_y \delta y + g_u \delta u + g_{u_n} \delta u_n = 0 \quad x, y \in \partial \Omega \quad \dots \dots \dots (A-38)$$

$$x^*, y^* \in \partial \Omega^*$$

Solving Eq. A-38 for g_{u_n} and substituting the results into Eq. A-37 gives

$$\begin{aligned} \delta J_{\phi} = & \int_0^T \int_{\Omega} \left\{ \left[\phi^T f_{u_x} - (\phi^T f_{u_{xx}})_x \right] \cos v + \left[\phi^T f_{u_y} - (\phi^T f_{u_{yy}})_y \right] \sin v \right. \\ & + \frac{\partial}{\partial s} \left[\phi^T f_{u_{xx}} \sin v \cos v - \phi^T f_{u_{yy}} \sin v \cos v \right] \\ & - \left(\phi^T f_{u_{xx}} \cos^2 v + \phi^T f_{u_{yy}} \sin^2 v \right) g_u^{-1} g_u \Big\} \delta u \delta t \\ & + \int_0^T \int_{\Omega} \left\{ S(x,y,t) \cos v - \left[(\phi^T f_{u_x} - (\phi^T f_{u_{xx}})_x) \cos v \right. \right. \\ & + \left. \left. (\phi^T f_{u_y} - (\phi^T f_{u_{yy}})_y) \sin v \right] u_x \right. \\ & - \frac{\partial}{\partial s} \left(\phi^T f_{u_{xx}} \sin v \cos v - \phi^T f_{u_{yy}} \sin v \cos v \right) u_x \\ & - \left(\phi^T f_{u_{xx}} \cos^2 v + \phi^T f_{u_{yy}} \sin^2 v \right) g_u^{-1} g_x \\ & - \left. \left. \left(\phi^T f_{u_{xx}} \cos^2 v + \phi^T f_{u_{yy}} \sin^2 v \right) \left(\frac{\partial^2 u}{\partial n^2} \cos v - \frac{\partial^2 u}{\partial n^2} \sin v \right) \right\} \delta x \delta t \\ & + \int_0^T \int_{\Omega} \left\{ S(x,y,t) \sin v - \left[(\phi^T f_{u_x} - (\phi^T f_{u_{xx}})_x) \cos v + (\phi^T f_{u_y} - (\phi^T f_{u_{yy}})_y) \sin v \right] u_y \right. \\ & - \frac{\partial}{\partial s} \left(\phi^T f_{u_{xx}} \sin v \cos v - \phi^T f_{u_{yy}} \sin v \cos v \right) u_y \\ & - \left. \left. \left(\phi^T f_{u_{xx}} \cos^2 v + \phi^T f_{u_{yy}} \sin^2 v \right) g_u^{-1} g_y \right. \right. \\ & - \left. \left. \left(\phi^T f_{u_{xx}} \cos^2 v + \phi^T f_{u_{yy}} \sin^2 v \right) \left(\frac{\partial^2 u}{\partial n^2} \sin v + \frac{\partial^2 u}{\partial n^2} \cos v \right) \right\} \delta y \delta t \dots \dots (A-39) \end{aligned}$$

Now we are in a position to choose the appropriate boundary conditions for Eq. A-31. The boundary condition for Eq. A-31 is chosen such that the first term on the right-hand side of Eq. A-39 vanishes. Because of the arbitrariness of δu on the boundary we obtain the boundary condition for Eq. A-31 as

$$\left[\phi^T f_{u_x} - (\phi^T f_{u_{xx}})_x \right] \cos v + \left[\phi^T f_{u_y} - (\phi^T f_{u_{yy}})_y \right] \sin v$$



David Lance

Hamming it up!

Sugar Land 13-year-old earns ham radio operator's license

By Susan Richardson
MIRROR Staff

SUGAR LAND - Thirteen-year-old David Lance likes to ham it up, with his ham radio that is.

The seventh grader at First Colony Junior High School became interested in the radios about a year and a half ago. He said his father Lee, a woodshop teacher at Clements High School, took him to a meeting of the Brazos Valley Amateur Radio Club, the group he now belongs to.

"I decided to go along with him and it turned out to be fun," the seventh grader recalled.

"He caught on like a house on fire," the elder Lance said, describing how easily his son learned the codes and theories necessary to get a technician's license.

"He was the youngest student in the club to ever get his license."

He was 12-years old.

"For a 13-year-old kid it's not real simple. Most of it's foreign to them. The easiest part they have is the code which is hardest for us (adults)," his father observed.

Like all operators, David had to learn Morris Code, the only universal language, electronic theory, which included knowledge of resistors and capacitors, and how to figure radio frequencies and wavelengths.

Being licensed to operate a ham radio has given him hours of fun and

also allowed him to provide a unique community service. Two weeks ago, David used his portable radio to help Emergency Medical Technicians treat injured bikers during an 160-mile bicycle ride to raise money for the Multiple Sclerosis Society. It was his job to direct EMT's to the various locations along the Houston to Austin bike route.

His work with the cyclists will count towards community service hours necessary to achieve his Eagle Scout Badge.

And there's the plain enjoyment from having "worldwide privileges" with his ham radio. Using his father's dipole radio in their home, David has talked to a lot of countries both near and far.

"Usually there's a big crowd around them, so I don't get to find out a lot," he said, commenting on the people he has talked to with his radio.

While he has contacted people from Grenada to New Zealand, two cases stand out his mind.

One night he talked to a senior citizen in Tokyo who later wrote him a few letters. On another occasion, his father contacted some tiny, isolated islands near the Marshall Islands in the Pacific. David later talked to ham operators there.

When he's not hamming it up, he is also an assistant senior patrol officer with his Scout troop and a softball player.

PREAMBLE FOR B-VARC RAG CHEW NET

QST, QST, QST.... This is _____, net control station for this evening's session of the B-VARC Rag Chew Net. This net originates from the Houston, Texas metropolitan area, and is a public service of the Brazos Valley Amateur Radio Club. This net meets each Wednesday evening at 8:30 PM local time on or near the frequency of 3.960 Mhz. All amateurs with license authorization for this frequency are welcome to join us each week.

This is _____, and my name is _____. I will now accept check-ins for the net. If this is your first time to check in with us, please state your name after your call sign. Any station wishing to check in please come now with your call sign.

(Wait for about 5 seconds of silence, then repeat call signs. Ask for relays. Repeat request for check-ins at least twice.)

Tonight's agenda will include:

- 1) B-VARC club news and general announcements.
- 2) Equipment for swap, sale, or purchase.
- 3) Calls for technical assistance.
- 4) After conclusion of these items, we will have one round of brief comments from net check-ins followed by an open rag chew session.

Any stations with B-VARC club news or general announcements please come now with your call sign only.

(Record call signs. Call each station for his/her turn.)

Any stations with equipment for swap, sale, or purchase please come now with your call sign only.

(Record call signs. Call each station for his/her turn.)

Any stations with calls for technical assistance please come now with your call sign only.

(Record call signs. Call each station for his/her turn.)

We will now make a quick round of the net check-ins for brief comments before we begin our open rag chew session.

(Call each station in order of check in for brief comments.)

This concludes the formal portion of tonight's net, and I would like to thank all stations who checked in. This is _____ releasing this frequency for an open rag chew session of tonight's net check-ins.

NEW PROCEDURES FOR THE B-VARC RAG CHEW NET
by Al Mattis NSAFV

The B-VARC Rag Chew Net, which meets Wednesday evenings at 8:30PM local time on a frequency of 3.960 Mhz, has adopted some new procedures. If 3.960 Mhz is in use by other stations at net time, the net will move up 3 Khz. If that frequency (3.963 Mhz) is also busy, the net will move up in 3 Khz increments until a clear frequency is found. It is hoped that this procedure will eliminate some of the confusion experienced in the past when the net frequency was in use.

The net now follows an agenda similar to that of the B-VARC Public Service Net held Monday evenings on 145.47 Mhz. B-VARC club news, general announcements, equipment for swap, sale or purchase, and calls for technical assistance are included on the net.

After these topics have been covered, all stations are given a chance to make comments to the net. One round through the net check-ins for brief comments is made, and then the frequency is released for an open rag chew session.

B-VARC RAG CHEW NET CHECK-INS
3.960 MHZ 8:30PM WEDNESDAY
compiled by Allen Mattis NSAFV

MARCH 22, 1989

NSAFV NCS, KB5DNT, WB4LZG, KB5ICO, WB5IGG,
N5ECP, W5GKH, N5MPN, WNSA, KF5VZ, N5HNO,
NSKWO/AA, AA56A, N5LGS, KASWJB, WB5GGY,
K65KV

MARCH 29, 1989

NSAFV NCS, NSKWO/AA, AA56A, N5LGS, K65KV,
N5NTP, KB5DNT, N5ECP, N5MPN, WNSA, KASWJB,
KA5DUU, WB4LZG, KB5ICO, WA5ETS, N5KXU

APRIL 5, 1989

WNSA NCS, KB5DNT, KA5DUU, N5MPN, W5RNK,
KF5VZ, AA56A, NSKWO/AA, N5NTP, WB4LZG,
KB5ICO, N5LGS, KB5GUY, KASWJB, K5BDZ

APRIL 12, 1989

NSAFV NCS, KB5DNT, AA5JW, N5MPN, WNSA,
KA5DUU, WB4LZG, KB5ICO, N5NTP, NSKWO/AA,
AK5G

APRIL 19, 1989

NSAFV NCS, KB5ICO, WB4LZG, KB5DNT, KA5DUU,
NSKWO/AA, WNSA, W5RNK, WB5IGG, AA56A, AK5G,
N5MPN, N5NTP, N5LGS, KF5YR, N5KXU, KB5GUY,
KF5VZ, WJ5B, KE5RU

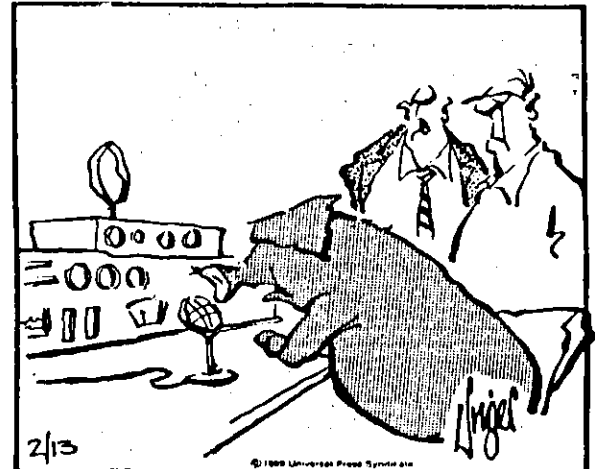
HOUSTON S.H.O.T. CHAPTER WINS
10-10 INTERNATIONAL QSO PARTY
by Al Mattis NSAFV

Allen Brier, WB5BIR, Contest Coordinator for the Houston S.H.O.T. (Space Houston On Ten) Chapter of 10-10 International wishes to thank all B-VARC members who helped the chapter by participating in the 10-10 International Winter Phone QSO Party on February 4-5, 1989. As a result of the increased level of participation, the chapter turned in 74 logs totalling 31,004 points to win the QSO party. Propagation favored Texas this year, and the second place chapter was only able to score 11,091 points. If propagation conditions had been more uniform across the country, the scores would have been much closer.

The next event for the S.H.O.T. Chapter is the 10-10 Spring CW QSO Party on May 6-7, 1989. This QSO party is a good opportunity for CW practice for those operators trying to improve their code speed. Any B-VARC members wishing to participate in the 10-10 Spring CW QSO Party are asked to contact Allen Brier at 827-9151 (work) or 974-0623 (home).

Courtesy of *Houston Chronicle*

Herman



"You never seen a ham
operator before?"

ATTENDANCE ROSTER

		F	M	A
B-VARC GENERAL MEETINGS		E	A	P
		B	R	R
KF 5 VZ	BRENSON ABBOTT		X	X
AA 5 JW	CARL ALBRECHT	X		X
	LOIS ANDREWS	X		
WB 5 YLB	A.J. BLACKWELL	X		
KA 5 GYG	RON BOLYARD			X
N 5 APW	GERRY BORG	X	X	X
	LAURA BORG			X
	OWEN CANTRELL		X	
KB 5 DNT	RALPH CHEEK	X	X	X
WB 5 YDN	BILL CLARKE		X	
WD 5 L	RICK COVERT		X	
	LAWRENCE COX	X	X	X
N 5 KXU	BILL DESSENS	X	X	X
WA 5 F	RAY DILLARD	X	X	X
	ALICIA DYER		X	
AA 5 GA	DAVE DYER		X	X
KB 5 GUY	DEBORAH DYER		X	
N 5 LGS	KARLA DYER		X	X
WB 4 LZG	GLENN EDWARDS	X	X	X
	MELANIE EDWARDS	X	X	X
KB 5 ICO	SUSAN EDWARDS	X	X	X
N 5 LRC	DOUGLAS EGGLESTON			X
KB 5 IQP	GREG FOSTER		X	X
WA 5 OEN	STEVE GOTTLIEB	X	X	X
WJ 5 B	DAVE HAMMER			X
W 5 WVX	ED HARWELL	X		
ND 5 E	GEORGE JOLLY	X		X
KA 5 WHK	KATHY JOLLY	X	X	X
KG 5 CB	BILL KEMP			X
	TIM KESTERSON	X		
KB 5 BAY	SUZANNE KING	X	X	X
	DICK KRUSE		X	X
N 5 NTP	JOHN LAMBUTH	X	X	X
WB 5 IGG	STU LAMKIN	X		X
KB 5 EYK	DAVE LANCE	X	X	
KB 5 EST	LFE LANCE	X	X	
	STEPHEN LEE			X
K 5 LTW	GREG LEFEBVRE	X	X	X
N 5 AFV	AL MATTIS	X	X	
	DOUG McPHERSON	X		
KA 5 YSL	RICK MEYER		X	
	STEVE MOYNIHAN	X		
N 5 GZW	HERB NANCE	X	X	X
KA 5 BZM	ALFREDO NAVARRO		X	
	JORDAN NOVELLI			
WA 5 ETS	VINCENT ORLANDO	X	X	X
KB 5 AKS	LARRY OVERACKER	X	X	X
	MARIA O'NEAL	X	X	
	SHANE O'NEAL		X	
ND 5 F	HAROLD PARKER	X	X	X
KE 5 XV	BILL PELLERIN	X		
	CESAR PEREIRA	X		
AK 5 G	RANDY POLLARD	X	X	X
N 5 GNG	TRISHA POLLARD	X		
KG 5 KV	CHARLES PROCHASKA	X	X	X
N 5 KWO /A	RANDY PUGH			X
N 5 MXC	HUB RATLIFF		X	
N 5 NAS	VICK RICHARD	X	X	X
N 5 JKD	ROBERT RICKETTS			X
AA 5 BD	JOE ROSS			X
N 5 ECP	JEFF SALMON		X	
	RAY SELLS	X		
KB 5 EXM	IRV SMITH	X	X	X
	RICK SMITH	X	X	
KA 5 ZYP	GLENN SPARKS		X	
N 5 NPP	PAUL STELLJER	X		
K 5 DJY	CLYDE STEVENS	X		
N 4 SBO	MARK STEVENS	X		
KA 5 SLG	DAVID TAYLOR	X	X	X
KB 5 ION	MELVIN THACHER	X	X	X
N 5 MPN	BILL TODD-BROWN		X	X
	GARY TUCKER		X	X
WN 5 A	JACK VAN DEMARK	X		X
N 5 NVW	WAYLAN WAITS		X	
WB 3 HZP	MIKE WARDEN	X		
TOTAL		46	47	43

BRAZOS VALLEY AMATEUR RADIO CLUB
1989 ACTIVITY ROSTER
compiled by Allen Mattis NSAFV

A.HOUSTON TENNECO MARATHON	B.CHALLENGER CUP 5K
C.FINE ARTS 5K	D.MOTHER HUBBARD 5K
E.CONOCO RODEO RUN 10K	F.WOMEN'S HOSPITAL 5K
G.AZALEA RUN 5K	H.HULL AIR SHOW
I.MS-150 BIKE TOUR	J.MAGIC CIRCLE 10K

Abbott, Brenson	KF5VZ	E, I
Albrecht, Carl	AA5JW	H, I
Borg, Gerry	N5APW	A, B, C, E, G, H, I
Cheek, Ralph	KB5DNT	A, C, D, E, G, H, I, J
Dessens, Bill	N5KXU	C, G, H
Dilliard, Ray	WA5F	A, C, E, F, G, H, I, J
Dyer, Alicia		I
Dyer, Dave	AA56A	A, C, E, F, I
Dyer, Debbie	KB56UY	A, C, I
Dyer, Karla	N5L6S	A, C, E, F, I
Edwards, Glenn	WB4LZG	A, C, D, E, H, I
Edwards, Melanie		A, C, D
Edwards, Susan	KB5ICO	A, C, D, F, H, I
Eilers, Wade	WN5TEN	I
Foster, Greg	KB5IQP	H
Gottlieb, Steve	WA5OEN	H
Hammer, Cindy	N5LXE	I
Hammer, Dave	WJ5B	I
Harris, Ron	N5MKO	E, H
King, Suzanne	KB5BAY	A, C, D, E, F, G, H, I
Lamkin, Stu	WB5I6G	A
Lance, Dave	KB5EST	C, E, H, I
Lance, Lee	KB5EST	H
Mattis, Allen	NSAFV	B, C, E, F, H
Morrison, Henry	WSRIY	A, C, D, E, I
Nance, Herb	N5GZW	H, I
Parker, Harold	ND5F	A, E, F, G, H, I, J
Pollard, Randy	AK5B	C, H, J
Prochaska, Charles	K65KV	F
Ricketts, Robert	NSJKD	I
Smith, Irv	KB5EXM	E, I
Van Demark, Jack	WN5A	D, F, H, I, J
Warden, Mike	WB3HZP	A, E

PLEASE REPORT CORRECTIONS OR ADDITIONS TO NSAFV

RESULTS OF THE APRIL 11TH EXAM:

by: Harold Parker, NDSF

B-VARC again sponsored and administered the ARRL's Amateur Radio Examinations that were held on Tuesday evening, April 11, 1989 at Strake Jesuit in Houston.

The V.E. Team and Assistants:

- Carl Albrecht, AASJW
- Joe Ross, AASBD
- Stu Lamkin, WBSIGG
- Irene Gordon, NEAYX
- Harold Parker, NDSF

A total of thirty-one (31) exams were administered during the evening to sixteen (16) applicants. Four (4) candidates received their new Novice License and six (6) upgraded their licenses with a total of twenty-one (21) elements passed. The overall "pass rate" for the evening was sixty eight (68%) percent.

Congratulations to all the following who upgraded and passed exams:

- Lamar Anders - Technician
- Jerome Booker, KBSIJS - Technician
- * William Chow - Novice
- Julius Danziger, NSNVV - Element 1B
- Stephen Greenwell, KASTDF - General
- Billy Gregg - Novice
- George Hickox - Novice
- James Jackson, NSOED - General
- * Bradley Jacobs - Element 1A
- Charles Maricle, NZAVL - Advanced
- * Matthew Parker - Novice
- * Randall Reimers - Technician

* Enrolled in B-VARC's Novice License Course

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

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

I'M A NEW MEMBER

I see you at the meetings
But you never say hello;

You'r busy all the time you're there
With fellows that you know.

I sit amongst the members,
And yet I'm a lonesome guy;

The new fish are as strange as me,
You old fellows pass us by.

But darn it, you guys ask us in
And you talk of good fellowship;

You could just step across the room,
But you never make the trip.

Why can't you nod and say hello?
Or stop and shake my hand;

Then go sit among your friends,
Now that I'd understand.

I'll be at your next meeting,
With others who attend;

Why don't you introduce yourself?
I want to be a friend.

NDSF borrowed this from:
The Scottish Rite Bulletin
April, 1989

Part No. 4 (continued)

DOWNBURSTS

A downburst is defined as a strong downdraft that causes an outburst of winds on or near the ground. Maximum winds in a downburst range from 60 to 170 miles per hour. The winds in a downburst push outward in all directions from a central point beneath the downdraft. If these winds affect an area less than 2 1/2 miles in diameter, the downburst is classified as a microburst. A downburst affecting a larger area is classified as a macroburst. Even though a microburst affects a smaller area than a macroburst, it may still produce winds in excess of 100 miles per hour.

Downbursts cause damage similar to that of a tornado. In fact, much of the wind damage previously attributed to tornadoes may have actually been caused by downbursts. When a wind-damaged area is viewed from the air, however, it is often possible to differentiate a downburst from a tornado. Downbursts cause damage in a radial pattern extending outward from a center. In contrast, tornado damage is usually confined to a linear trend that extends along the ground where the tornado touched down. Downbursts are actually a greater threat to life and property than tornadoes. Once a downburst hits the ground, it begins to weaken. Because of their very short life span, it is almost impossible for the National Weather Service to issue a warning for a downburst.

Downbursts are much more numerous than tornadoes. Mr. Ron Stagno of the National Weather Service estimates that as many as 50 downbursts may occur each year in the greater Houston area. The February 5, 1986 storm in the Hooks Airport area near Tomball, produced four tornadoes and perhaps as many as 30 microbursts. Two persons were killed, and approximately 200 aircraft were damaged or destroyed in this storm. The largest loss of life resulting from a downburst in Texas occurred August 2, 1985, when Delta Airlines Flight 191 flew into a downburst while attempting to land at Dallas - Fort Worth Airport. The L-1011 jumbo jet crashed, killing 137 persons.

The formation of downbursts requires the presence of several factors. Dry air must be present at mid-levels of 10,000 to 20,000 feet within a thunderstorm. The storm must be strong enough to lift rain and/or hail above this dry air. As the rain and/or hail fall back toward the ground, the dry air is cooled by evaporation and becomes heavier than the surrounding air. This mass of cooler, heavier air then begins to fall toward the ground. The resulting burst of wind at or near the earth's surface is a downburst.

Weather spotters can expect little advance warning if a downburst occurs. Downbursts often occur in the rain-cooled air behind the gust front as a thunderstorm approaches, or in the area of heavy rain or hail beneath the building towers of the thunderstorm just ahead of the wall cloud. As with straight line winds, both wind speed and direction should be reported by weather spotters experiencing a downburst.

TORNADOES

Tornadoes have been described as nature's most violent storms. The winds in tornadoes average 125 to 150 miles per hour, but may reach maximum speeds of 250 to 300 miles per hour. The average tornado is only on the ground five to ten minutes. The record for a single tornado is approximately four hours on the ground, and that tornado traveled a distance of 219 miles, crossed portions of Missouri, Illinois and Indiana, and killed 689 people. Tornadoes usually move at forward speeds of 20 to 30 miles per hour, but occasionally may reach forward speeds approaching 70 miles per hour.

Each year in Texas, an average of 119 tornadoes occur, and an average of 11 people are killed in our state each year by these storms. Harris County has the dubious distinction of having had more tornadoes reported to authorities than any other county in the United States - an average of 24 per year. In Oklahoma and Texas, more tornadoes occur in May than during any other month. The typical May tornado moves from southwest to northeast, is approximately 55 yards wide, and stays on the ground for a distance of 2.2 miles. Large or maxi-tornadoes, such as the one that struck Wichita Falls on April 10, 1979, may range up to a mile or more in width.

Because most tornadoes are not visible on radar, weather spotters are the most effective means of providing advance warning to civil authorities when a tornado occurs. Only 15 percent of tornadoes exhibit the classic "hook signature" on radar. The new Doppler radar system is able to detect a much larger percentage of tornadoes, and in some cases can provide a 15 to 30 minute advance warning before a tornado funnel forms. Even after the new Doppler radar system is installed nationwide, weather spotters will still be an important part of any effective tornado warning and tracking system.

Most tornadoes occur in the right rear quadrant of a storm. Studies indicate that 60 to 80 percent of all tornadoes form in this portion of a storm. Most of these tornadoes develop from wall clouds. A wall cloud is a local and often abrupt lowering of a rain free cumulonimbus base into a low hanging accessory cloud in the rear portion of a storm. The wall cloud develops below the area of intense updraft in a thunderstorm, and is usually located just to the rear of the heaviest rain and/or hail in the storm. For this reason, tornadoes are often not visible to observers as the storm approaches them. Weather spotters located to the rear or side of a severe thunderstorm have a far greater chance of seeing a tornado, because they can observe the wall cloud area without rain obscuring their view. Some spotters use binoculars to examine the wall cloud if the storm is not directly overhead.

Many times, rotation occurs in the wall cloud just prior to formation of a funnel cloud. Rotation in a wall cloud should be reported by weather spotters, and any funnel cloud, of course, should also be reported. Occasionally, tornadoes do not have a visible funnel because the tornado has not yet picked up enough debris, dirt or dust to form a visible cloud. These tornadoes can sometimes be identified by observing debris being blown into the air where the tornado is touching the ground.

Spotting a tornado in the dark at night is difficult. Spotters should make use of bright lightning flashes to scan the sky for a wall cloud or funnel cloud. One tornado which struck Tulsa in the dark in 1975, was identified by spotters from an advancing line of electrical flashes caused by the tornado shorting out power lines and electrical transformers in its path. Another unique characteristic of a tornado is its sound. When a tornado passes overhead, it roars like a train moving at high speed. This unmistakable sound should also be reported by spotters.