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 . . .

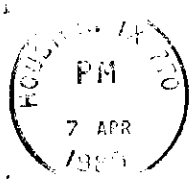
Organized in 1977, the club has been growing steadily. It is a gathering place for HAM radio operators in Fort Bend and Southwest Harris Counties, and surrounding communities. It is a general-purpose type of HAM club offering a variety of activities open to all interested persons. Membership is open, 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.

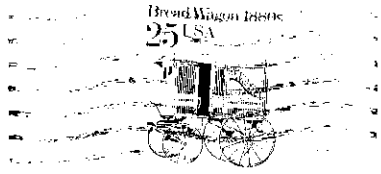
For information about the club and any of its activities, please call Stu Lamkin, WB5IGG, (713) 777-3345.

Volume: 12 Issue: 4 **April 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, April 6 Board Meeting
7:30 pm Missouri City Fire Station

Thursday, April 13 General Meeting
7:30 pm Missouri City Fire Station
(Meet at BBQ Restaurant for supper first)
Prog Stephen Lee FCC Field Engr
Thursday, May 4 Board Meeting
7:30 pm Missouri City Fire Station

Saturday, May 13 Picnic

Stu Lamkin WB5IGG
7401 Heilig
Houston, Tx 77074

April 1989

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
FUTURE MEETINGS: May 4 B-VARC Board May 11 B-VARC General June 24 Field Day	PUBLIC SERVICE EVENTS: May 6 Mother's Day		FUN EVENTS: May 13 Picnic	OTHER V.E. EXAMS Contact Stu 777-3345	NOTE: ALL NETS MEET WEEKLY (EVEN IF ONLY SHOWN ONCE)	**1** C.W. NET 2030 hrs. 147.32 See 4/2 listing. Air show on Sat also
2 AIR SHOW a.m. or p.m. SUGARLAND (HULL) RAY (WA5F)	**3** ARES 2000 hrs. 147.30 B-VARC 2100 hrs. 145.47	**4** 10X SHOT 2000 hrs. 28.488 AMSAT 2200 hrs. 145.45	**5** B-VARC RAG CHEW 2030 hrs. 3.960	**6** B-VARC BOARD 1950 hrs. M.C. FIRE STATION New Moon	**7**	**8** M.S. - 150 TOUR 0800 hrs. HOUSTON - AUSTIN RAY (WA5F)
9 M.S. - 150 TOUR (continued)	**10** ARES 2000 hrs. 147.30 B-VARC 2100 hrs. 145.47	**11** B-VARC HAM EXAMS 1900 hrs. STRAKE JESUIT Stu (713-777-3345)	**12** B-VARC RAG CHEW 2030 hrs. 3.960 First Quarter	**13** B-VARC GENERAL 1950 hrs. M.C. FIRE STATION	**14**	**15** Breakfast every Sat @ Denny's (Sharpstown)
16 JDF 10K AFTERNOON? MAGIC CIRCLE GALLERIA AREA RAY (WA5F)	**17** ARES 2000 hrs. 147.30 B-VARC 2100 hrs. 145.47	**18** 10X SHOT 2000 hrs. 28.488 AMSAT 2200 hrs. 145.45	**19** B-VARC RAG CHEW 2030 hrs. 3.960	**20** Passover	**21** Full Moon	**22**
23 **30**	**24** ARES 2000 hrs. 147.30 B-VARC 2100 hrs. 145.47	**25** 10X SHOT 2000 hrs. 28.488 AMSAT 2200 hrs. 145.45	**26** B-VARC RAG CHEW 2030 hrs. 3.960	**27**	**28**	**29**

B-VARC NEWS ITEMS

UPGRADES

Carl Albrecht: KA5QLQ to AA5JW
Susan Edwards: KB5ICO/KT to KB5ICO
Randy Pugh: N5KWO to N5KWO/AG to N5KWO/AA

Congratulations to the above! Let us know about other upgrades and we'll put them in the Newsletter. Eventually this will be included as part of a regular roster-change feature.

NEW REPEATER

You can be one of the first to get on 1292.100 if you have the equipment to do so. The machine is said to be located in the Post Oak area. Contact Jeff (N5ECP) for details.

SILENT KEY

Greg Lefebvre (K5LTW) wanted all to know of the recent death of his father, who had been ill for some time with cancer. He operated out of Fredericksburg with call KB5BJI.

BOARD MEETING TIDBITS

1) Field Day possible sites
2) B-VARC QSL Cards
3) B-VARC customized golf shirts
4) B-VARC QSL Bureau
5) 10-10 Contesting
6) B-VARC Rag Chew Net
7) Combination contest/social affairs
8) Saturday morning breakfasts
9) B-VARC photo album
10) Politics of helping with Galveston events
11) Means of keeping old members and inviting former ones to become active in B-VARC again.
12) Means of welcoming members of B-VARC novice classes into the club.

Board meetings are open to all, so come to the next one and put your two cents' worth in on the above items. If you can't make it, let any board member know your thoughts.

ATTENDANCE ROSTERS

Listed elsewhere is the roster for recent general meetings, and for the current B-VARC Novice Class. If you see an unfamiliar name, or a call you've QSO'd with but never met personally, seek'em out at the next meeting. Offer to help the Novice-aspirants answer any questions, and welcome them to B-VARC.

MARCH MEETING REPORT

Hub Ratliff (N5MXC) described CAP activities, and demonstrated their DF'ing gear. Hub or Vincent (N5ETS) can give further information for membership by either junior or senior members. A new squadron is being formed at Sugarland's Hull Airport. Ask Ed (KD5JC) about it.

The Chili Cookoff was a resounding success. Thanks to Vick (N5NAS) and Harold (ND5F) for coordinating it. An incomplete list of others bringing food or items includes Suzanne (KB5BAY), Ralph (KB5DNT), Irv (KB5EXM), Herb (N5GZW), Susan (KB5ICO), Bill (N5KXU), Charles (KG5KV), Greg (K5LTW), Hub (N5MXC), and Lee (KA5WJB).

B-VARC JACKETS

Did you admire Vick's (N5NAS) red jacket with the B-VARC emblem on the back? The folks at the business listed below can fix you up. Jackets start at about $35 with your name and call sign stitched on the front. The emblem is another $20 or so. Sizes up through XXXL are available for those of you excelling in "Body-Nulling" as described by Hub (N5MXC), our March speaker.

HISTORY OF THE B-VARC RAG CHEW NET
by Al Mattis N5AFV

The B-VARC Rag Chew Net, which currently meets Wednesday evenings at 8:30PM local time on a frequency of 3.960 Mhz, is undergoing some changes. The number of stations checking into the net in recent months has increased, and changes in the format of the net are being discussed. Because many B-VARC members are unfamiliar with the Rag Chew Net, I feel it would be of interest to review the history of the net.

While researching the net history, I talked with a number of early net participants. I am particularly indebted to ND5F for the information he provided me from his collection of past B-VARC Newsletters. Discussions with KA5GYG and WB5IGG were also useful in piecing together the net history.

The B-VARC Rag Chew Net was founded in January of 1982. It originally met on Wednesday evenings at 8PM local time on a frequency of 28.735 Mhz. During its first 6 months, the net tried a number of different times and frequencies. By July of 1982, the net had settled into an 8:30PM time slot, and was on a frequency of 28.700 Mhz. The following 18 months were an active time for the net.

By the Spring of 1984, however, things had changed. The minutes from the March, 1984, Board of Directors meeting note that the net had only 2 check-ins that week. At the October, 1984, Board of Directors meeting, WB5IGG suggested that the Rag Chew Net move to 75 meters because of the limited local coverage provided by ground wave on 10 meters, and TVI problems some of the members were experiencing while operating on 10 meters. In January of 1985, the net officially moved to a frequency of 3.962 Mhz.

The early months on 75 meters were active ones for the net. Several stations shared the net control duties, and check-ins increased in number. By March of 1985, however, interest in the net had begun to decline, and WB5IGG was the only B-VARC member willing to take on the duties of net control. The presence of QRM on 75 meters led to several changes in the net frequency during the following months, and in Janury of 1986, the net moved to its current frequency of 3.960 Mhz.

During the next 2 years, N5AFV began to assist WB5IGG with the net control duties. Check-ins usually ranged from 2 to 4, with a maximum of 11 check-ins occurring on March 18, 1987. In August of 1988, in an effort to increase participation in the net, B-VARC began to publish a list of net check-ins each month in the newsletter. Since that time, the average number of check-ins has increased to 7, and on January 25, 1989, a total of 11 stations again checked into the net. It is this recent increase in net participation that has led to the current re-examination of the B-VARC Rag Chew Net and it's role within our club.

B-VARC RAG CHEW NET CHECK-INS
3.960 MHZ 8:30PM WEDNESDAY
compiled by Allen Mattis N5AFV

JANUARY 25, 1989
WB5IGG NCS, N5AFV, N5KXU, WN5A, N5MPN, WB4LZG, AA5GA, AK5G, KG5KV, KB5ICO, N5LGS

FEBRUARY 1, 1989
WB5IGG NCS, N5AFV, KG5KV, WB4LZG, KB5ICO, W5NRK, N5NTP, AA5GA, N5LGS, WN5A

FEBRUARY 8, 1989
N5AFV NCS, N5ECP, AA5GA, WN5A, N5NTP, WB4LZG, KB5ICO, N5LGS

FEBRUARY 15, 1989
WB5IGG NCS, N5AFV, N5NTP

FEBRUARY 22, 1989
N5AFV NCS, KG5KV, N5NTP, KA5WJB, WB4LZG, KB5ICO, WA5ETS

MARCH 1, 1989
N5AFV NCS, WA5ETS, N5NTP, AK5G, WB4LZG, N5NNV, N5MPN

MARCH 8, 1989
N5AFV NCS, N5NTP, WB4LZG, KF5VZ, AK5G, KB5ICO, N5MPN

MARCH 15, 1989
N5AFV NCS, KB5ICO, WB4LZG, KB5DNT, KA5WJB, WN5A, KG5KA, WA5ETS, N5NTP, AK5G, AA5GA, N5LGS, N5KWO/AG

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RESULTS OF THE FEB. 14TH EXAM:

by: Harold Parker, ND5F

B-VARC again sponsored and administered the ARRL's Amateur Radio Examinations that were held on Tuesday evening, February 14, 1989 at Strake Jesuit in Houston.

The V.E. Team and Assistants:

Joe Ross, AA5BD
Henry Morrison, W5RIY
Stu Lamkin, WB5IGG
Harold Parker, ND5F

A total of thirty-two (32) exams were administered during the evening to sixteen (16) applicants. Nine (9) upgraded their license with a total of twenty (20) elements passed. The overall "pass rate" for the evening was sixty-three (63%) percent.

Congratulations to all the following who upgraded and passed exams:

Russell Black, KA5MCF - Technician + Element 3B
Martin Blaise - Technician
Ralph Caraway, KB5HHI - Technician + Element 1B
Joseph Irvin - Element 2
James Jackson - Technician
Norman Kalson, KB5HZS - Advanced
Wally Kielkowski, KB5IGL - General
Richard Mac Dougal, KG5LZ - Extra
Lori Modisette, N5NUH - Element 3B
Robert Molloy, N5MFJ - General
Garry Simonton, KB5DWL - Extra
Paul Stelljes, N5NPP - Element 3B
Gary Tucker - Elements 2 and 3A
Carolyn Wilson, KB5FPO - Element 4B

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, WA5ETS, and everyone at Strake Jesuit for making these excellent classroom facilities available to us for our exams each month.

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RESULTS OF THE MARCH 14TH EXAM:

by: Harold Parker, ND5F

B-VARC again sponsored and administered the ARRL's Amateur Radio Examinations that were held on Tuesday evening, March 14, 1989 at Strake Jesuit in Houston.

The V.E. Team and Assistants:

Joe Ross, AA5BD
Henry Voss, WD5JSF
Stu Lamkin, WB5IGG
Irene Gordon, N5AYX
Carl Albrecht, AA5JW
Harold Parker, ND5F

A total of forty-seven (47) exams were administered during the evening to twenty (20) applicants. One candidate received a new Novice License and thirteen (13) upgraded their licenses with a total of thirty-three (33) elements passed. The overall "pass rate" for the evening was seventy (70%) percent.

Congratulations to all the following who upgraded and passed exams:

Terrell Bairrington - Technician
Gary Bell - General
Thomas Bowden - Novice
Daniel Cano, N5NVU - General
Scott Craven, WA5TOC - Extra
Greg Foster - Technician
David Fremont - Technician
James Jackson, KB5INR - Element 3B
Jack Long, WB5GGY - Advanced
George Modisette, N5NKB - Element 4B
Lori Modisette, N5NUH - Element 4A
Steven Moynihan - Extra
Randy Pugh, N5KWO - General
Paul Stelljes, N5NPP - Advanced
Melvin Thatcher, KB5ION - Technician
Gary Tucker - Technician
Phillip Tusa, N5NWA - Advanced + Element 4B

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, WA5ETS, and everyone at Strake Jesuit for making these excellent classroom facilities available to us for our exams each month.

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ATTENDANCE ROSTER

B-VARC GENERAL MEETINGS

				F E B	M A R
KF	5	VZ	BRENSON ABBOTT		X
AA	5	JW	CARL ALBRECHT	X	
			LOIS ANDREWS	X	
WB	5	YLB	A.J. BLACKWELL	X	
N	5	APW	GERRY BORG	X	X
			OWEN CANTRELL		X
KB	5	DNT	RALPH CHEEK	X	X
WB	5	YDN	BILL CLARKE		X
WD	5	L	RICK COVERT		X
			LAWRENCE COX	X	X
N	5	KXU	BILL DESSENS	X	X
WA	5	F	RAY DILLARD	X	X
			ALICIA DYER		X
AA	5	GA	DAVE DYER		X
KB	5	GUY	DEBORAH DYER		X
N	5	LGS	KARLA DYER		X
WB	4	LZG	GLENN EDWARDS	X	X
			MELANIE EDWARDS	X	X
KB	5	ICO	SUSAN EDWARDS	X	X
			GREG FOSTER		X
WA	5	OEN	STEVE GOTTLIEB	X	X
W	5	WVX	ED HARWELL	X	
ND	5	E	GEORGE JOLLY	X	
KA	5	WHK	KATHY JOLLY	X	X
			TIM KESTERSON	X	
KB	5	BAY	SUZANNE KING	X	X
			DICK KRUSE		X
N	5	NTP	JOHN LAMBUTH	X	X
WB	5	IGG	STU LAMKIN	X	
KB	5	EYK	DAVE LANCE	X	X
KB	5	EST	LEE LANCE	X	X
K	5	LTW	GREG LEFEBVRE	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
KA	5	BZM	ALFREDO NAVAROO		X
WA	5	ETS	VINCENT ORLANDO	X	X
KB	5	AKS	LARRY OVERACKER	X	X
			MARIA O'NEAL	X	X
			SHANE O'NEAL		X
ND	5	F	HAROLD PARKER	X	X
KE	5	XV	BILL PELLERIN	X	
			CESAR PEREIRA	X	
AK	5	G	RANDY POLLARD	X	X
N	5	GNG	TRISHA POLLARD	X	
KG	5	KV	CHARLES PROCHASKA	X	X
N	5	MXC	HUB RATLIFF		X
N	5	NAS	VICK RICHARD	X	X
N	5	ECP	JEFF SALMON		X
			RAY SELLS	X	
KB	5	EXM	IRV SMITH	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
KB	5	ION	MELVIN THACHER	X	X
N	5	MPN	BILL TODD-BROWN		X
			GARY TUCKER		X
WN	5	A	JACK VAN DEMARK	X	
N	5	NVW	WAYLAN WAITS		X
WB	3	HZP	MIKE WARDEN	X	

BRAZOS VALLEY AMATEUR RADIO CLUB
1989 ACTIVITY ROSTER
compiled by Allen Mattis N5AFV

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

Abbott, Brenson	KF5VZ	E
Blackwell, AJ	WB5YLB	B,C,F
Borg, Gerry	N5APW	A,B,C,E,G
Cheek, Ralph	KB5DNT	A,C,D,E,G
Creel, Fred	N5LYB	E
De Armas, Frank	KB5EQG	E
Dessens, Bill	N5KXU	C,G
Dilliard, Ray	WA5F	A,C,E,F,G
Dyer, Dave	AA5GA	A,C,E,F
Dyer, Debbie	KB5GUY	A,C
Dyer, Karla	N5LGS	A,C,E,F
Edwards, Glenn	WB4LZG	A,C,D,E
Edwards, Melanie		A,C,D
Edwards, Susan	KB5ICO	A,C,D,F
Eason, Mike	N5KRU	A
Hagerman, Dick	WB5SRN	A,E
Harris, Ron	N5MKO	E
King, Suzanne	KB5BAY	A,C,D,E,F,G
Lamkin, Stu	WB5IGG	A
Lance, Dave	KB5EYK	C,E
Mattis, Allen	N5AFV	B,C,E,F
Morrison, Henry	W5RIY	A,C,D,E
Parker, Harold	ND5F	A,E,F,G
Pollard, Randy	AK5G	C
Prochaska, Charles	KG5KV	F
Shull, Lee	KA5WJB	C
Smith, Irv	KB5EXM	E
Van Demark, Jack	WN5A	D,F
Warden, Mike	WB3HZP	A,E

PLEASE REPORT CORRECTIONS OR ADDITIONS TO N5AFV

LETTERS TO THE EDITOR

What do you think about the "no-code" issue? Will it encourage more new hams? Or, will it bring in "CB-Type" riff-raff? Do you support the commercial interests coveting our frequencies in opposing "no-code"?

Send us your letters! If we feel need to edit, will run copy by you.

THE ARRL Letter

Volume 8, No. 4 February 28, 1989

WHAT IS ARRL POLICY ON NO-CODE?

Many members are asking League officials what is "ARRL policy" with regard to the current discussion of a possible no-code class of amateur license. Here is some background.

After the FCC was forced to back away from its own 1983 no-code license proposals, the ARRL Board established goals for growth in the number of FCC amateur licensees and in the ARRL membership. Given that at the time there was strong sentiment against reducing the entry-level requirements for an amateur license, ARRL looked for ways to improve the marketing and increase the attractiveness of the existing entry-level license. These efforts led to the Novice Enhancement proposal which was submitted to the FCC in mid-1985 and was adopted in early 1987.

Novice Enhancement proved to be successful in several ways. On-the-air activity of Novices and Technicians increased dramatically. Upgrading and the rate of license renewal by Novices both surged upward. Novice Enhancement also motivated some people to clear the licensing hurdles who previously had not wanted to make the effort; however, in the first 18 months of Novice Enhancement the numbers of licensees did not increase as much as had been hoped. The FCC decision to reallocate 220-222 MHz (the fight for which is far from over!) caused many amateurs to attribute new significance to the issue of growth. This, coupled with widespread publicity about the expected phasing out of Morse code in the maritime service, suggested that the time may have come for another look at entry-level requirements.

Last November, ARRL President Larry Price, W4RA and Executive Vice President Dave Sumner, K1ZZ, collaborated on preparation of an editorial for the January issue of *QST* entitled, "Why Morse Code?" The editorial called for a rational discussion, within the democratic framework provided by the League, of the no-code license issue. Advance copies of the editorial were distributed at the December 10 meeting of the Executive Committee. Subsequent discussion led the Executive Committee to instruct President Price to appoint a special study committee, made up of representatives from the Board, the amateur community at large, and the Amateur Radio industry, to explore the implications of a no-code class of amateur license.

The study committee was appointed January 9 (see *ARRL Letter*, Vol. 8 No. 1, January 13, 1989) under the chairmanship of Vice President George Wilson, W4OYI, and immediately began its work by correspondence. Several committee members were present at the Florida State Convention (Miami Hamboree) the weekend of February 4 and were able to attend meetings of the informal industry group which has been discussing the issue of Amateur Radio growth for the past four years, as well as to get together themselves. The first formal meeting of the study committee is slated for March 11.

Between now and June, the study committee will be developing a report for the Board to consider at its July meeting. The report may or may not include a recommended League position. The Board may or may not accept such a recommendation. ARRL policy will be whatever eventually garners the support of a majority of Directors. There's no way anyone can know at this time what that will be.

In the meantime, a reasonable statement of ARRL policy that reflects the Executive Committee's December 10 action is that the subject deserves careful study over the next several months. Any member wishing to provide an input to that study should be encouraged to address the study committee members, either individually or c/o ARRL HQ, as well as their own Director.

FORT BEND COUNTY
LOCAL EMERGENCY PLANNING COMMITTEE
OFFERS
EXERCISE DESIGN COURSE

SESSION ONE : APRIL 3 - 6, 1989, 8AM - 5PM
SESSION TWO : MAY 1 - 4, 1989, 6PM - 10PM
MAY 8 - 11, 1989, 6AM - 10PM

COURSE OUTLINE

- Introduction to Community Exercise Programs
- Developing a Community Exercise Program
- Tabletop Exercise Development
- Functional Exercise Development
- Tabletop Exercises (SET's)
- Full Scale Exercise Development
- Resources for Exercise Enhancement
- SARA Title III
- Local Emergency Planning Committee
- Fort Bend Co. Haz-Mat Response Plan

EXERCISE DESIGN COURSE

DATE:_____

ENROLLMENT INTO WHICH SESSION?

SESSION ONE:_____ NAME(S):_____

_____

SESSION TWO:_____ NAME(S):_____

_____

ADDITIONAL INFORMATION AND COMMENTS:_____

_____

Please return this page to : LEPC
307 Fort St. (Rear)
Richmond, Tx. 77469
ATTN: R.G. Bolyard

This course requires 32 hours of instruction to receive credit for TECLOS, EMS, Fire Service and Continuing Education. However, a shorter version can be arranged if there is enough interest to warrant altering the present outline. Attendance in the course is limited to 24 students and the necessary course materials will be supplied. There is no charge for this course.
Any interested persons can contact Ron Bolyard, KA5GYG at 342-4274 during the day or 342-1365 in the evenings if there are any questions.
73's RON KA5GYG.

EQUIPMENT FOR SALE OR SWAP

Greg (K5LTW), Phone 771-7728:

1) A complete rig, consisting of Kenwood TS-140S with 500 hz CW filter, PS 430 power supply and SP 430 speaker. $1000.

2) Commodore 64 and accessories

3) Commodore 128 and accessories

4) Compaq Portable and accessorie

Did you read as far as Item 73 of the ARRL Board Minutes in QST?

73) Mr. Haynie, as host Director, reported on plans for the 1989 ARRL National Convention, in observance of the ARRL National Jubilee/75th anniversary. The Convention is to be held June 2-4 at the Sheraton/Arlington Convention Center, between Dallas and Fort Worth, Texas. The amateur station at the convention will be operated under the license of the Big Spring Amateur Radio Club, W5AW. Commercial booths for the convention are already sold out, but there is to be a 700-table flea market.

GENERAL MOTORS HAM SURVEY UNDERWAY

Do you operate your ham rig mobile from a GM truck? If so, GM is looking for some information from you.

General Motors is conducting a survey of Amateur Radio use in medium and heavy duty trucks. If you operate your rig in one of these units, please write and describe the bands you operate on, the power output and antenna location. Send responses to the following address:

EMC Department
General Motors Proving Ground
40-EMC
Milford, MI 48042

BRAZOS VALLEY AMATEUR RADIO CLUB NOVICE LICENSE COURSE

	STUDENT NAME
1	Andrews, Lois
2	Blackwell, Amy
3	Bludworth, Benny
4	Carpenter, Terry
5	Chow, William
6	Ciampi, Rick
7	Cloud, Jim
8	Copeland, Carol
9	Cox, Lawrence
10	Crafts, Jon
11	Ford, Kris
12	Howard, Mike
13	Johnson, Glenn
14	Jud, Mark
15	Kesterson, Tim
16	Kirkling, Charles
17	Kirkling, Twana
18	Kruse, Dick
19	Lyde, Kirby
20	Marquez, Louis
21	Martinez, Moises
22	McClendon, Perry
23	McClendon, Timothy
24	Molina, Paul
25	Nance, Linda
26	O'Neal, Maria
27	Parker, Matt
28	Reimers, Randy
29	Rogers, Claire
30	Singleterry, Lovell
31	Smith, Rick
32	Sorto, Manual
33	Ulvick, Syd
34	Wyatt, Ed
35	Zacarias, Hugo
36	Copeland, Jean

Special thanks to Bill Walker Royalton District Manager of Warner Cable, for donating the use of their copier and supplies for printing the newsletter.

LIGHTNING

Lightning kills more people in the United States than tornadoes, floods or hurricanes. In Texas, an average of approximately 10 persons per year are killed by lightning. A study of almost 2,700 lightning casulties occurring between 1959 and 1965 indicated that most of the persons injured or killed could be classified into one of five different categories. These categories are: 1) Persons standing under trees, 2) Persons on, in or near open water, 3) Persons on, in or near tractors and other farm implements, construction equipment, cars or trucks, 4) Golfers, and 5) Persons talking on the telephone.

Lightning results from the transfer of electricity through the atmosphere between a cloud and the earth, between two clouds, or within a single cloud. Lightning occurs when the difference between positive and negative electrical charges becomes great enough to overcome the insulating effect of the atmosphere. An average lightning discharge delivers 40,000 to 60,000 amperes of electricity with a force of 100 million volts or more. Lightning travels at a velocity of 75,000 miles per second.

Thunderstorms contain two electrically charged areas. The frozen upper layers of the cloud usually contain a large positive charge. In the lower portion of the cloud, a large negative charge often accumulates. This distribution of charges results in the delivery of a negative charge to the earth in cloud-to-ground lightning. In rare cases, the polarity of the charged areas in the cloud may be reversed, and positively-charged cloud-to-ground lightning results. Recent studies suggest that positively-charged cloud-to-ground lightning may be more likely to occur in tornadic thunderstorms.

Weather spotters should pay attention to lightning activity. A total of 30 or more lightning strokes per minute is one definition of a severe thunderstorm. Lightning in a severe storm is mostly vertical or cloud-to-ground when the storm is growing. When a severe storm reaches its peak, the lightning becomes mostly horizontal in nature, or cloud-to-cloud. The dying phase of a thunderstorm is characterized by cloud-to-cloud lightning. Even though cloud-to-cloud lightning has begun and the storm is weakening, severe weather may still occur until the storm weakens below severe levels. Also, as previously noted, the potential for heavy rain and flash flooding is often highest as the storm is dying. Weather spotters should describe lightning as either cloud-to-cloud or cloud-to-ground, and lightning strokes of 30 or more per minute should be reported. Lightning is very dangerous, and during times of intense lightning activity, spotters should remain inside their vehicles or a building.

HAIL

Hailstones are precipitation in the form of lumps of ice. They range from pea size to the size of a grapefruit. They are usually round, but may also be conical or irrregular in shape. The largest hailstone recorded by the National Weather Service fell near Coffeyville, Kansas, and measured eight inches in diameter.

The size of hailstones is an indicator of thunderstorm intensity. Here in Texas, a hail-producing severe thunderstorm passed over the north portion of the Houston metropolitan area on February 5, 1986, and caused extensive damage at Hooks Airport near Tomball. This storm, which was accompanied by hail the size of tennis balls, spawned at least four tornadoes, and numerous downbursts. A thunderstorm producing marble size hail is strong enough to produce a tornado. The National Weather Service usually issues a severe thunderstorm warning whenever dime size (3/4 inch) hail or larger is known to be present, regardless of whether or not strong winds have been reported.

Weather spotters report hailstone size in reference to common objects. From small to large, these sizes are pea, marble, dime, quarter, golf ball and baseball. The percentage of the ground that is covered by hailstones is also often reported by spotters, and provides an estimate of the amount of hail that has fallen. For example, a typical spotter's report might be "We have marble size hail falling with 25% of the ground covered." Finally, if you experience hail golf ball size or larger, be especially alert. Many tornadoes occur just as the hail is ending or within the next several minutes. If you have received hail the size of golf balls or larger, you are in the most dangerous part of the storm.

STRAIGHT LINE WINDS

Straight line winds cause most of the damage associated with severe thunderstorms. These dangerous winds generally occur along the leading edge of the thunderstorm, and are usually associated with a shelf cloud. The first wind gusts are often the strongest, and thus little advance warning may be available. In 1987, a severe thunderstorm in Wisconsin produced straight line winds in excess of 90 miles per hour. The National Weather Service is usually interested in receiving reports of straight line winds in excess of 40 to 50 miles per hour. A thunderstorm accompanied by winds of 57 miles per hour or greater is a severe thunderstorm.

Weather spotters often report both wind speed and direction. The wind speed can be estimated from charts available in various weather spotter guidebooks. These charts are based on the effect winds of different speeds produce on smoke, leaves, twigs, flags, branches, trees and other objects.