

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 (home)
Production Manager: Roland Torres, KB5EQH 622-7810 (0700-1600 hrs)

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.

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

Volume: 13 Issue: 1

January 1990

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

| | |
|-------------------|--|
| Thurs, January 11 | BANQUET |
| 7:30 pm | Country Cafe - Stafford (FM 1092 at Fifth Street) |

| | |
|-------------------|----------------------------|
| Thurs, February 6 | Board Meeting |
| 7:30 pm | Missouri City Fire Station |

B-VARC CALENDAR: JANUARY 1990

| SUNDAY | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY |
|--|---|--|--|--|---|---|
| <p>HOUSTON AREA V.E. EXAM INFO: STU (MBSJGG) 713-777-3345</p> | <p>1 ARES B-VARC NET 2000 hrs 2100 hrs 147.30 145.47 HAPPY NEW YEAR</p> | <p>2 10 X SHOT 2000hrs 2200 hrs 28.488 145.45</p> | <p>3 B-VARC C.W. CODE RAG-CHEW PRACTICE 2000 hrs 2030 hrs 3.960 147.32 (Busy? +3 kHz)</p> | <p>4 BOARD MEETING 1930 hrs M.C. FIRE STATION #1 (KEY MAP 570-T)</p> | <p>5 LUNCH BUNCH 1130 hrs. LOCALE VARIES (CHECK IN: 442.5 OR 443.15)</p> | <p>6 C.W. B-VARC BREAKFAST 2030 hr 0730 hrs DENNY'S 147.32 SHARPSTOWN</p> |
| <p>7 HARRIS COUNTY RACES 1900 hrs 146.94</p> | <p>8 ARES B-VARC NET 2000 hrs 2100 hrs 147.30 145.47</p> | <p>9 V.E. EXAMS 1900 hrs, STRAKE JESUIT STU (MBSJGG), 777-3345</p> | <p>10 B-VARC C.W. CODE RAG-CHEW PRACTICE 2000 hrs 2030 hrs 3.960 147.32 (Busy? +3 kHz)</p> | <p>11 GENERAL MEETING 1930 hrs @ MC FS #1 PROGRAM: BANQUET COUNTRY CAFE - STAFFORD SEE MAP Back Page</p> | <p>12 LUNCH BUNCH 1130 hrs. LOCALE VARIES (CHECK IN: 442.5 OR 443.15)</p> | <p>13 C.W. B-VARC BREAKFAST 2030 hr 0730 hrs DENNY'S 147.32 SHARPSTOWN</p> |
| <p>14 HARRIS COUNTY RACES 1900 hrs 146.94</p> | <p>15 ARES B-VARC NET 2000 hrs 2100 hrs 147.30 145.47</p> | <p>16 10 X SHOT 2000hrs 2200 hrs 28.488 145.45</p> | <p>17 B-VARC C.W. CODE RAG-CHEW PRACTICE 2000 hrs 2030 hrs 3.960 147.32 (Busy? +3 kHz)</p> | <p>18</p> | <p>19 LUNCH BUNCH 1130 hrs. LOCALE VARIES (CHECK IN: 442.5 OR 443.15)</p> | <p>20 C.W. B-VARC BREAKFAST 2030 hr 0730 hrs LE PEPE 147.32 GESSNERWESTHEI SIDEWALK SALE - MISSION TRANSMITTER HUNT - NSJKD</p> |
| <p>21 HARRIS COUNTY RACES 1900 hrs 146.94</p> | <p>22 ARES B-VARC NET 2000 hrs 2100 hrs 147.30 145.47</p> | <p>23 10 X SHOT 2000hrs 2200 hrs 28.488 145.45</p> | <p>24 B-VARC C.W. CODE RAG-CHEW PRACTICE 2000 hrs 2030 hrs 3.960 147.32 (Busy? +3 kHz)</p> | <p>25 WEST-SIDE SOCIAL 1900 HRS @ BEAR CREEK OPTIONAL DINNER @ 1615 HRS LUBY'S CLAY & HWY 6</p> | <p>26 LUNCH BUNCH 1130 hrs. LOCALE VARIES (CHECK IN: 442.5 OR 443.15)</p> | <p>27 C.W. B-VARC BREAKFAST 2030 hr 0730 hrs DENNY'S 147.32 SHARPSTOWN</p> |
| <p>28 HARRIS COUNTY RACES 1900 hrs 146.94</p> | <p>29 ARES B-VARC NET 2000 hrs 2100 hrs 147.30 145.47</p> | <p>30 10 X SHOT 2000hrs 2200 hrs 28.488 145.45</p> | <p>31 B-VARC C.W. CODE RAG-CHEW PRACTICE 2000 hrs 2030 hrs 3.960 147.32 (Busy? +3 kHz)</p> | | | |
| <p>FUTURE B-VARC & PUBLIC SERVICE EVENTS: FEB 24: SUGARLAND ROTARY BIKE RIDE</p> | | | | <p>FUTURE MEETINGS: FEB. 1: BOARD MEETING FEB. 8: GENERAL MEETING</p> | | <p>NOTE: Nets meet weekly even if not shown</p> |
| | | | | | | <p>Please send info and corrections to Irv (KB5EXM) 437-4803</p> |

Brazos Valley Amateur Radio Club

Membership Application

Bring to a Club meeting, or mail with check to:

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

Check if this application is for: New Membership _____ Renewal _____ Roster Update _____

Name _____ Callsign _____ License Class _____

Address _____ Home Phone _____

City, St, Zip _____ Work Phone _____

Are you a member of the ARRL? _____ Each year we report the percentage of our membership who are members of the ARRL on our annual club status report. If you would like to join (or renew) the ARRL, the club will benefit if you do so through our treasurer. Check here _____ if you wish to do so, and include the current ARRL dues in your remittance.

Regular membership dues are \$12.00/year. After the March membership meeting, dues are prorated quarterly. Additional family members may join B-VARC for only \$2.00/year each. They do not receive an additional copy of the monthly newsletter. If you wish to enroll additional family members, please fill out their information below:

Name _____ Callsign _____ License Class _____

Home Phone _____ Work Phone _____ ARRL MEMBER? _____

Name _____ Callsign _____ License Class _____

Home Phone _____ Work Phone _____ ARRL MEMBER? _____

Remittance Calculation:

Regular Membership _____ + Family Memberships Amount _____

ARRL Membership Qty _____ Amount _____

Red Membership Patches are available at \$2.50/ea. Qty _____ Amount _____

Gold Director Patches are available at \$2.50/ea Qty _____ Amount _____

TOTAL _____

I agree to observe the By-Laws of the Club and the rules and regulations of the Federal Communication Commission.

Signature _____ Date _____

VOLUNTEER AMATEUR LICENSE SESSIONS
Stu Lamkin WB5IGG

The B-VARC Volunteer Examiner Team offers exams for all classes of ham licenses on the evening of the second Tuesday of every month of the year. In order to get all applicants and examiners over and out as early as possible on exam nights we complete all pre-exam paperwork prior to the first exam call at 7 PM.

We accomplish this by not taking walk-ins, requiring all applicants to preregister with me. If not familiar with our pre-exam procedure, the applicant calls me on 777-3345 for procedure instructions.

I also try to keep up with other teams' exam session schedules and furnish such information when requested.

WANT TO KEEP YOUR ROSTER UP TO DATE?
Stu Lamkin WB5IGG

Here's all you have to do -- When you have ANY change in your Roster information, which is:

- Name -- Callsign -- Class of license --
- Address -- Phone numbers -- ARRL member status --

Notify (not on the air!) Susan Edwards KB5ICD at 498-7425. She will have published in each issue of the newsletter all such information received since the last issue. This, along with complete Roster info in new members, can then be added to your Roster which will then be up to date all the time! It's that easy, so let's all do it!

B-VARC SPRING '90 NOVICE COURSE
Stu Lamkin WB5IGG

Monday, March 4, 1990 will be the first class meeting of B-VARC's Spring '90 Novice Course. The first 8 class meetings will be for Morse code practice and instruction and the last 2 will be for code practice and exams. The study guide will be ARRL's TUNE IN THE WORLD WITH HAM RADIO.

The Instructor Staff will be the same as for the two '89 courses. Anyone who would like to participate in the instruction program should call Glenn Edwards WB4LZG and get on the list.

All the fine details haven't yet been worked out but for more information or to enroll in the Course you should call me at 777-3345.

ATTENDANCE ROSTER

| B-VARC GENERAL MEETINGS | | O | M | D |
|-------------------------|---------------------|---|---|---|
| | | C | O | E |
| | | T | V | C |
| KF 5 VZ | BRENSON ABBOTT | | X | X |
| AA 5 JW | CARL ALBRECHT | X | | X |
| N 5 POH | FRANK BERNER | | | X |
| KA 5 MCP | RUSSELL BLACK | | | X |
| WB 5 YLB | A.J. BLACKWELL | X | | |
| 9H 1 FBS | CHARLES BORG | X | | |
| N 5 APW | GERRY BORG | X | | |
| N 5 PKW | BETH BROWN | X | X | X |
| N 5 NTO | DON BROWN | X | X | |
| KB 5 KLY | DON BROWN, SR. | X | X | X |
| KB 5 DNT | RALPH CHEEK | | X | |
| WB 5 YDD | BILL CLARKE | | | X |
| | ERIC COLE | | | X |
| WD 5 L | RICK COVERT | | X | X |
| N 5 KXU | BILL DESSENS | X | X | X |
| K 8 FPK | ADRIAN DEMAAL | | | X |
| WA 5 F | RAY DILLARD | X | X | X |
| KB 5 KNC | ALICIA DYER | X | X | X |
| AA 5 GA | DAVE DYER | X | X | X |
| KB 5 GUY | DEBORAH DYER | X | X | X |
| N 5 LGS | KARLA DYER | X | X | X |
| WB 4 LZG | GLENN EDWARDS | X | X | |
| KB 5 KLH | MELANIE EDWARDS | X | X | |
| KB 5 ICO | SUSAN EDWARDS | X | X | X |
| N 5 LRC | DOUGLAS EGGLESTON | X | | X |
| | JOHN ENGLISH | X | | |
| | ROBERTO FLAMENCO | | | X |
| KB 5 EIN | BILL FORKNER | | | X |
| | CRAIG FORKNER | | | X |
| KB 5 ??? | FLOYD FOX | | | X |
| K 5 LBU | CHARLES FROST | | | X |
| WA 5 DEM | STEVE GOTTLIEB | X | X | X |
| WJ 5 B | DAVE HAMMER | X | | |
| N 5 ??? | NICK HARDY | X | X | X |
| N 5 WXX | ED HARMELL | X | X | X |
| WB 1 CCH | EARLE HERBERT | | | X |
| KB 5 JIZ | GEORGE HICKOX | | | X |
| KB 5 BAY | SUZANNE KING | X | | |
| N 5 OUT | DICK KRUSE | X | | X |
| ND 5 C | ELTON KYTLE | | | X |
| N 5 NTP | JOHN LAMBUTH | X | | |
| WB 5 IGG | STU LAMKIN | X | X | X |
| K 5 LTM | GREG LEFEBVRE | X | X | X |
| | HARRY LEVINE | | | X |
| WB 5 DRB | LARRY LEVY | | X | |
| KB 5 JHI | KIRBY LYDE | | | X |
| N 5 AFV | AL MATTIS | X | X | X |
| KB 5 ??? | MARK McELVY | | X | |
| KA 5 YSL | RICK MEYER | X | | |
| AA 5 LF | STEVE MOYNIHAN | X | X | |
| | ANTHONY MROUZKOWSKI | X | | |
| N 5 GZW | HERB NANCE | X | | |
| KE 5 RU | ANDY ODUM | X | | |
| KB 5 KJS | TERRY ONDA | X | | X |
| ND 5 F | HAROLD PARKER | X | X | X |
| N 5 ??? | ROGER POKLADNIK | | | X |
| AK 5 G | RANDY POLLARD | | X | X |
| KG 5 KV | CHARLES PROCHASKA | | | X |
| AA 5 OA | RANDY PUGH | X | X | X |
| N 5 NAS | VICK RICHARD | X | X | |
| N 5 JKD | ROBERT RICKETTS | | X | |
| AA 5 BD | JOE ROSS | X | | |
| N 5 PHL | RON SHORTHOSE | X | X | X |
| KB 5 ??? | DANN SINIBALDI | X | X | X |
| KB 5 XNN | STEVE SKELTON | X | X | |
| KB 5 EXM | IRV SMITH | X | | X |
| N 5 PHN | TIM STANLEY | X | | X |
| X 5 DIY | JOE TARRANT | | X | |
| KA 5 SLG | DAVID TAYLOR | | X | |
| KB 5 YDN | MELVIN THATCHER | | X | |
| N 5 NPN | BILL TODD-BROWN | X | | |
| | VICKY TRAHAN | X | | |
| WN 5 A | JACK VAN DENARK | X | X | X |
| WB 6 LSB | BOB VERDON | X | | |
| WB 5 JBT | DON WADE | | | X |

B-VARC RAG CHEW NET CHECK-INS
3.960 MHZ 8:00PM WEDNESDAY
compiled by Allen Mattis NSAFV

NOVEMBER 22, 1989

NSAFV NCS, NSMPN, AK5G, WNSA, K65KA,
K65KMN, W65I6G, AA5GA, W65I8T, K65KEF,
K65DUU, W65RNK, W64LZ6, K65ICO, K65KLN,
W65JB, K65ION, N65XU, K65JT, N65CP

NOVEMBER 29, 1989

NSAFV NCS, AK5G, W65OEN, WNSA, NSMPN,
W65I6G, W64LZ6, K65ICO, K65DUU, W65I8T,
K65KEF, AA5GV, K65ION, K65KV, W65RNK

DECEMBER 6, 1989

NSAFV NCS, W65RNK, W65Q6V, K65KV, K65KMN,
N65CP, W65I6G, N65I, K65DUU, W65I8T,
WNSA, AK5G, N65XU, AA5GV, NSMPN

DECEMBER 13, 1989

NSAFV NCS, K65DUU, W65I8T, K65KV, K65NOT,
W65RNK, NSMPN, W65I6G, AK5G, N65XU,
K65JIZ, K65KEF, N65TP

UPCOMING B-VARC PUBLIC SERVICE ACTIVITIES FOR 1990
compiled by Allen Mattis NSAFV

| ACTIVITY | DATE | CHAIRPERSON |
|--------------------------|--------|-------------|
| HOUSTON TENNECO MARATHON | JAN 14 | W65SHU |

GENERAL MEETING ATTENDANCE
GOLD STAR WINNERS
(MEETINGS ATTENDED - OUT OF 11)

| | | |
|----------|-------------------|----|
| K 5 LTW | GREG LEFEBVRE | 11 |
| N 5 KXU | BILL DESSENS | 10 |
| KB 5 ICO | SUSAN EDWARDS | 10 |
| WA 5 OEN | STEVE GOTTLIEB | 10 |
| WB 5 IGG | STU LAMKIN | 10 |
| N 5 AFV | AL MATTIS | 10 |
| ND 5 F | HAROLD PARKER | 10 |
| AK 5 G | RANDY POLLARD | 10 |
| AA 5 JW | CARL ALBRECHT | 9 |
| WA 5 F | RAY DILLARD | 9 |
| WB 4 LZG | GLENN EDWARDS | 9 |
| N 5 OUT | DICK KRUSE | 9 |
| N 5 GZW | HERB NANCE | 9 |
| KB 5 EXM | IRV SMITH | 9 |
| WN 5 A | JACK VAN DEMARK | 9 |
| N 5 APW | GERRY BORG | 8 |
| AA 5 GA | DAVE DYER | 8 |
| N 5 LGS | KARLA DYER | 8 |
| KB 5 KLH | MELANIE EDWARDS | 8 |
| KG 5 KV | CHARLES PROCHASKA | 8 |
| KB 5 ION | MELVIN THATCHER | 8 |
| N 5 MPN | BILL TODD-BROWN | 8 |

| | |
|------------------------------|------------------------|
| A. HOUSTON TENNECO MARATHON | B. CHALLENGER CUP 3K |
| 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 CIRCUS |
| K. ALA CLEAN AIR BIKE RIDE | L. DAD'S DASH |
| M. ARRL FIELD DAY | N. MUSTS TRIATHLON |
| O. SHAREABLE WEARABLES | P. GOLD WINGER'S RIDE |
| Q. TERRY FOX 5K | R. 100 RUN 8K |
| S. GAAC 20K | T. MOONLIGHT RAMBLE |
| U. ALAMO CHALLENGE BIKE TREK | V. MS-100 MINI TOUR |
| W. JUVENILE DIABETES WALK | X. COM-VENTION VE TEAM |
| Y. GAAC 25K | Z. CITY RACE VI |
| AA. GRAC JOK | AB. JINGLE BELLS RUN |

| | | |
|-------------------|--------|---|
| Abbott, Branson | KFSVZ | E, I |
| Albrecht, Carl | AA5JN | H, I, R, S, Y, AA |
| Albrecht, Carl | K65JF | R, S, Y, AA |
| Barrington, Terry | N65FD | AA |
| Black, Russell | K65MCP | M |
| Blackwell, "AJ" | W65YLB | B, F, N, Q, R, S, Y, AA, AB |
| Borg, Gerry | NSAPW | A, B, C, E, G, H, I, M, R, AA |
| Brown, Beth | NSPKW | N, R, U, Y, AA, AB |
| Brown, Don | NSNTD | N, R, S, T, Y, AA, AB |
| Cheek, Ralph | K65DNT | A, C, D, E, F, G, H, I, J, K, L, M, N, Q, R, U, V, X, Y |
| Covert, Rick | W65L | N |
| Cox, Lawrence | K65JOB | M |
| Dessens, Bill | NSKXU | C, G, H, AA, AB |
| Dessens, Mark | K65JT | M |
| Dillard, Ray | W65F | A, C, E, F, G, H, I, J, K, L, M, N, P, Q, R, U, V, X, Y, AA, AB |

| | | |
|----------------|--------|---|
| Dyer, Alicia | K65KNC | I, M, N, S, T, Y, AA |
| Dyer, Dave | AA5GA | A, C, E, F, I, M, S, T, Y, AA |
| Dyer, Debbie | K65GUY | A, C, I, M, S, T, Y, AA |
| Dyer, Karla | NSLSS | A, C, E, F, I, M, S, T, Y, AA |
| Edwards, Glenn | W64LZ6 | A, C, D, E, H, I, K, M, N, O, R, S, T, Y, Z, AA, AB |

| | | |
|------------------|--------|-----------------------------------|
| Edwards, Melanie | K65KLN | A, C, D, H, N, R, U, Y, Z, AA, AB |
| Edwards, Susan | K65ICO | A, C, D, F, H, I, R, U, Y, AA, AB |

| | | |
|-----------------|--------|-----------------------------------|
| Eilers, Wade | W65TEN | I |
| Foster, Greg | K65IQP | H, M |
| Germany, Cass | K65IT | I |
| Gottlieb, Steve | W65OEN | H, M |
| Gries, Ron | W65SCE | Q |
| Hammer, Cindy | NSLXE | I, M |
| Hammer, Dave | W65JB | I, M |
| Hardy, Nick | | T |
| Harwell, Ed | W65MVI | AA |
| Harris, Ron | NSMKO | E, H |
| Hickox, Bill | K65DZ | N |
| King, Suzanne | K65BAY | A, C, D, E, F, G, H, I |
| Larkin, Stu | W65I6G | A, H |
| Lance, Dave | K65EYK | C, E, M, T, U |
| Lance, Lee | K65EST | H |
| Lefebvre, Greg | K65LW | T |
| Mattis, Allen | NSAFV | B, C, E, F, H, L, M, S, Y, AA, AB |

| | | |
|-----------------|--------|----------------------------------|
| Morrison, Henry | W65RIV | A, C, D, E, J, M, N, P, Q, Y, AA |
|-----------------|--------|----------------------------------|

| | | |
|---------------------|--------|-----------------------------------|
| Nance, Herb | NSGZM | H, I, M, U |
| Onda, Terry | K65KJG | AA, AB |
| Overacker, Lawrence | K65AKS | M |
| Owen, Paul | NSNXS | Q, T |
| Parker, Harold | N65F | A, E, F, G, H, I, J, L, X |
| Pollard, Randy | AK5G | C, H, J, L, M, R, X, Y, AA |
| Prochaska, Charles | K65KV | F, M, Q, R |
| Ricketts, Robert | NSJKD | I, L, M, N, Q, R, U, Y, Z, AA, AB |

| | | |
|------------------|--------|---|
| Shorthose, Karen | NSPHD | Q, U, Y |
| Shorthose, Ron | NSPHL | Q, U, Y, AA, AB |
| Sinibaldi, Dawn | | T |
| Skelton, Steve | NSPRC | AA, AB |
| Smith, Irv | K65EXM | E, I, M, V |
| Tarrant, Joe | K65DIY | I |
| Taylor, David | K65SLG | I, U, Y |
| Todd-Brown, Bill | NSMPN | M |
| Van Demark, Jack | WNSA | D, F, H, I, J, M, N, O, Q, R, I, AA, AB |
| Wade, Don | W65I8T | AA, AB |
| Warden, Mike | W65HJP | A, E, S, T, Y, AA |

by: ... Steve Yates, KA5DUU

Solar Music

It was 12:30 AM, September 5, 1987. The moon was full and the night was quiet except for an owl overhead. I had just hooked up my newly constructed infrared detector to my 60mm refractor telescope. I thought it would be interesting to hear what infrared noise from the moon sounded like. After putting on the headphones and firing up the detector, I was pleased to hear a large increase in moon noise as I swept my telescope across the moon. The noise I heard was nothing unexpected, yet.

After listening for several minutes I heard something that sent chills up and down my spine. I heard pulses of sound that sounded like a bee buzzing by my ear, yet they were not the same from one pulse to another. My first thought was that this couldn't be real and I had some sort of equipment malfunction. After thoroughly checking out my equipment I realized that these signals were real. What were they? Was it some sort of alien transmission? At this time I could only guess.

The thing that intrigued me most about the signals was their intensity. After all, the moon was full. Infrared noise from the sun reflected off the moon is most intense during a full moon yet the signals I heard were several dB above the background noise and sometimes overloaded my detector.

The signals had a duration of about 100 ms and had slow rise and fall times. The signals appeared to have amplitude modulation of approximately 200 Hz yet not exactly the same from one pulse to another. The signals appeared to occur at random intervals but seemed to come in groups. Amplitudes and modulating frequencies were random.

My first thought was that the signals were originating from the sun and being reflected off the moon. I figured if that was the case I should be able to hear the signals directly from the sun, but not so. The next day I tried monitoring the sun directly and heard nothing but noise.

That same day I made changes to my detector to improve its strong signal capability. I also connected up an amplifier and loudspeaker.

That night I listened to the signals from 8:00PM to 11:00PM and recorded one hour of the signals on cassette tape. After all, who would possibly believe me. Signals were about the same as before except modulation was noticed down to 20 Hz.

I had asked many people about the possible origin of the signals but no one had an answer. Time went by and I moved to Fort Worth in January of 1988. I tried to hear the signals during other phases of the moon with no success.

I designed an improved version of my detector and again coupled it to my refractor telescope. On February 21, 1989 from 9:45PM to 10:45PM I was pleased to still be able to hear the signals. The moon's phase was full and a lunar eclipse had occurred about thirty hours before. This time my recording system was a RCA camcorder with slow audio AGC and a Maxell RX Pro 120 VHS video tape. Results were impressive yet gave me no clues to the origin of the signals.

On April 15, 1989 I made a surprising discovery. I had my IR detector on my bench and was using a prism to reflect IR to it from the sun shining through my skylight window. At one point I had the sun's image near the detector but not right on it. I was very shocked to hear the same signals I had heard from the moon except much more intense. I could not hear the signals when the sun's image was directly on the detector, only noise. That same day I set a mirror outside and beamed the sun into a dark room inside the house where I had my detector placed. I would place the sun's image near but not on the detector. I used my HI-FI VCR to record the signals. Using this arrangement my recordings had very high dynamic range. Later I used my detector with my telescope so I could track the sun instead of re-adjusting every five minutes to overcome the earth's rotation.

The signals from the sun were being reflected off of the moon as I had originally thought. I couldn't detect the signals directly from the sun because they were masked by very strong infrared noise due to heat. The signals appear to originate in the sun's corona. What causes the signals is still unknown to me. Possibly strong magnetic fields associated with solar activity somehow modulate infrared signals on their way out from the sun.

When listening to the signals it is much like listening to music made by whales at sea. Amplitudes range from overload to barely perceivable. Tones range from 2 to 3 KHz down to a speaker blowing 20 Hz. Signals are almost continuous and sometimes appear to increase suddenly as if there were some sort of storm, possibly a solar flare. I have also discovered an occasional continuous tone that is weak and sounds like a small prop-driven aircraft flying overhead.

I would very much like others to share in my discovery and shed some light on the possible cause of the signals. I am also curious to study the effects of known solar flares on the signals.

My detector shown in the schematic is capable of receiving any amplitude modulated infrared signals and has a frequency response from 5 Hz to 20 KHz. It has enough output to drive most recording systems but an outboard amplifier will be needed to drive a speaker. Good shielding is necessary for the detector if good results are to be had. A mirror can be used as shown to receive the solar signals or the detector may be used with a telescope providing you never aim it directly at the sun for the detector will vaporize. When using either method the object is to place the image of the sun's corona on the detector, not the sun itself.

Monitoring these signals is much like monitoring extraterrestrial signals on radio. Only the frequency is a bit higher.

Please contact me with comments or answers. So long for now and happy exploring.

Stephen R. Yates
KA5DUU
10303 Stoney Bridge
Ft. Worth, Texas 76108

THE ARRL NEWSLETTER

December 1, 1989
Volume 8, No. 24

Congress Agrees: No Fees for Amateur Licenses!

The joint House-Senate Conference Committee, reviewing both versions of the Omnibus Budget Reconciliation Act of 1989, has approved deletion of the amateur license fees from the legislation.

In its report released on November 21, the Conference Committee stated: "Both the House bill and the Senate bill include fees on licensees in the amateur radio service. The Conference Report strikes all of the fees for amateur radio licensees. The Conferees recognize that amateur licensees do not operate for profit and play an important public safety role in times of disaster or emergency."

In the early morning hours of November 22, both Houses of Congress adopted the Conference version of the bill sending it to President Bush for signature.

In the current budgetary environment, avoiding fees altogether is an enormous accomplishment.

ARRL congratulates all who played an active role in writing to their Senators and Representatives helping in this effort. Look for an upcoming *QST* article that will detail how amateurs won this important battle.

THE ARRL NEWSLETTER

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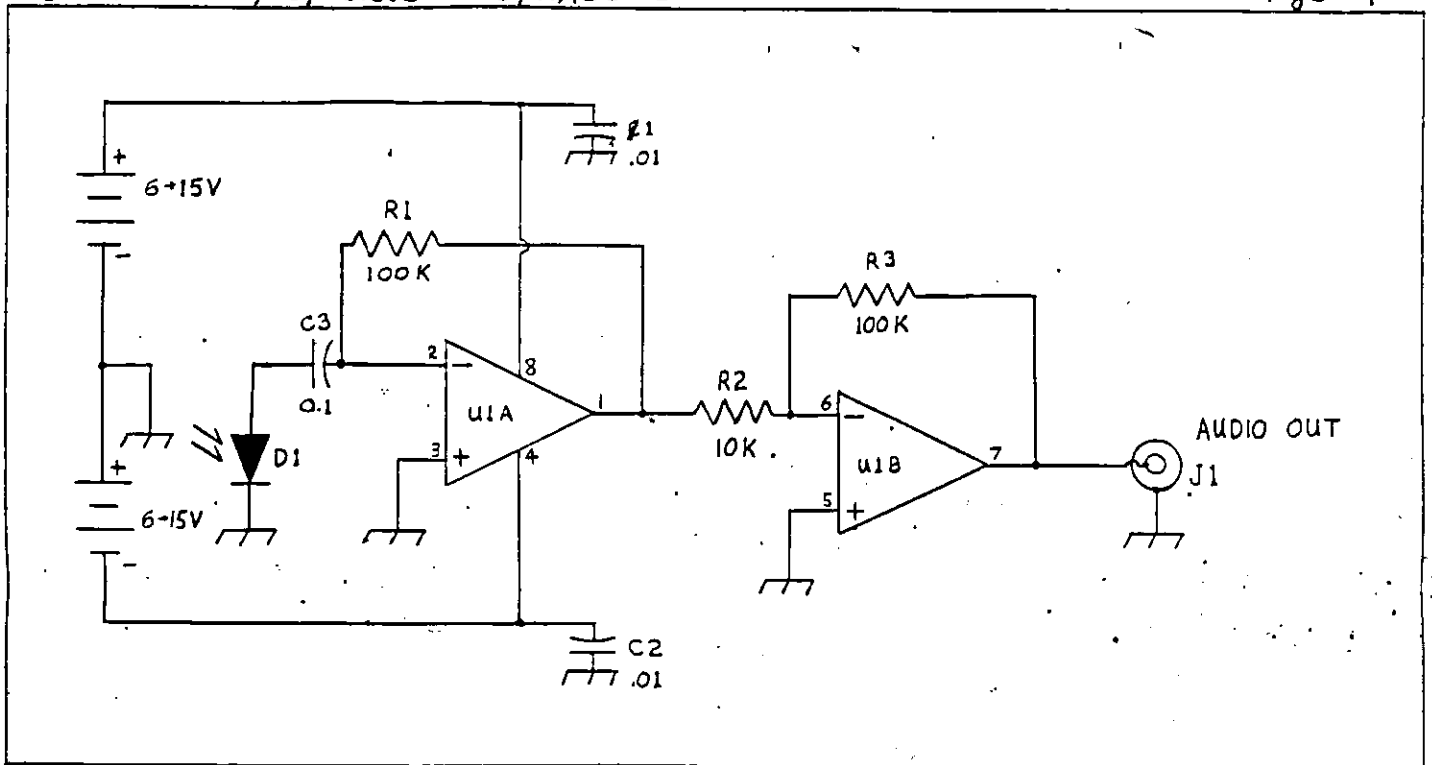
FCC ISSUED CALL SIGN UPDATE

The following is a list of most recently issued FCC call signs (November 1).

| District | Group A Extra | Group B Advanced | Group C Tech/Gen | Group D Novice |
|----------|------------------|---------------------|---------------------|-------------------|
| 0 | WX0Y | KF0GC | N0LFA | KB0FJN |
| 1 | NZ1P | KC1QW | N1HBP | KA1UQD |
| 2 | WU2H | KE2QE | N2KAM | KB2ISS |
| 3 | NX3G | KD3PV | N3HPO | KA3VHS |
| 4 | AB4RM | KM4ZZ | N4XHB | KC4MZT |
| 5 | AA5OQ | KG5ZR | N5PNP | KB5KXU |
| 6 | AA6SA | KK6BZ | N6WUU | KC6GQQ |
| 7 | AA7CF | KF7XY | N7NTQ | KB7IWN |
| 8 | WX8A | KF8CE | N8LMP | KB8IIT |
| 9 | WM9F | KE9ST | N9JAI | KB9DMF |
| Guam | KH2K | AH2CF | KH2EG | WH2AMH |
| Hawaii | ** | AH6KB | NH6VC | WH6CFU |
| Alaska | ** | AL7LP | NL7SV | WL7BVU |
| USVI | NP2F | KP2BR | NP2DK | WP2AGZ |
| P.R. | ** | KP4QJ | WP4WZ | WP4IPE |

** indicates that all 2 x 1 call signs have been assigned in those areas.

The N-prefixed Group C (1 x 3) call-sign blocks for the fourth and sixth call districts have nearly all been assigned. After N4ZZZ and N6ZZZ have been issued, FCC will begin assigning calls from the Group D (2 x 3) call-sign block.



Schematic diagram of infrared detector. See texts for details.

C3 — 0.1 μ F disc ceramic. Radio Shack 272-135.

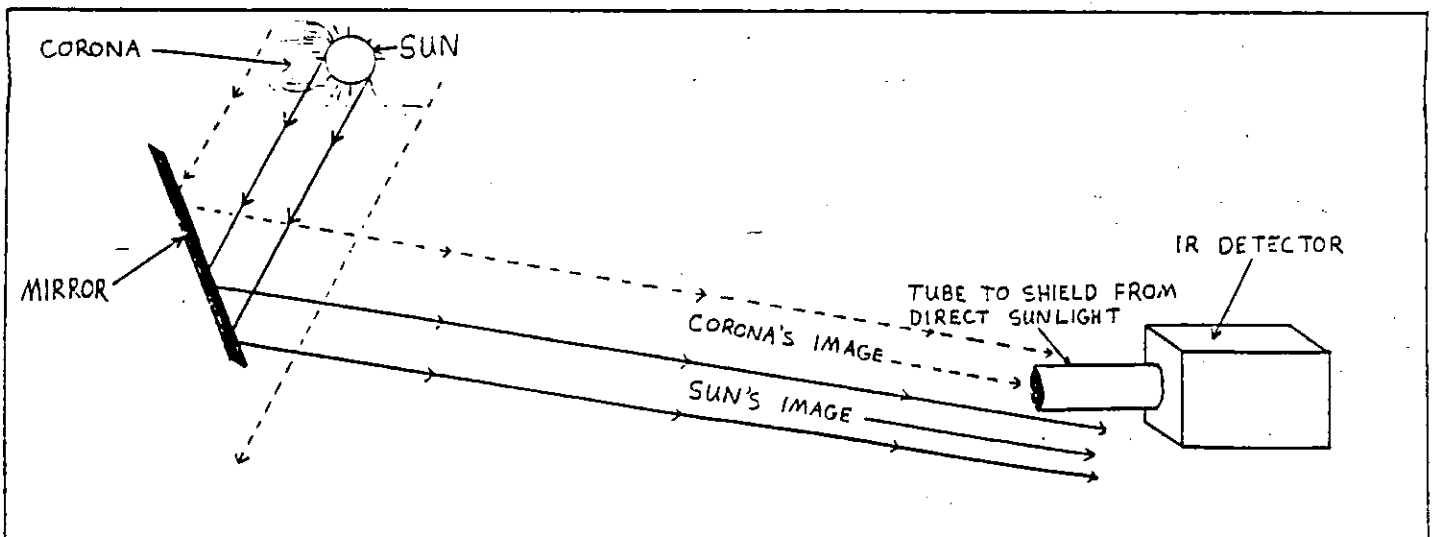
C1, C2 — 0.01 μ F disc ceramic. Radio Shack 272-131.

D1 — IR photodiode PIN

R1, R3 — 100k Ω resistor $\frac{1}{4}$ W 5%. Radio Shack 271-1347.

R2 — 10k Ω resistor $\frac{1}{4}$ W 5%. Radio Shack 271-1335.

U1 — Dual BiFET op amp. Radio Shack 276-1715.



Method for using a mirror with detector for solar detection.

SUMMARY OF 1989 AMATEUR EXAMS:

by: Harold Parker, NDSF

On the second Tuesday night of every month during 1989, B-VARC sponsored and our V.E. Teams administered twelve (12) ARRL VEC Amateur Radio Examination Sessions at Strake Jesuit College Preparatory in Houston, plus the special Sunday morning session at the Sheraton Crown Hotel during the Houston Ham-Comm.

A total of 581 exam elements were administered during the past year to 275 applicants. Of those, 36 received their new licenses and 128 others upgraded by passing 329 elements. The overall "pass rate" was 57% for the year.

These statistics indicate that 1989 was much more active than the preceeding year. There was a 27% increase in the number of applicants taking exams and a 39% increase in the number of exam elements administered by the examiners.

Many thanks to all the Team Members and Assistants who volunteer their valuable time and effort each month. You all have made a significant contribution to B-VARC's great success this past year.

The members of B-VARC continue to provide the resources for this valuable public service while serving the residents of our communities through these regular monthly license exam opportunities.

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.

We will be looking forward to another great year during 1990.

RESULTS OF DECEMBER 12TH EXAM:

by: Harold Parker, NDSF

B-VARC again sponsored and administered the ARRL's Amateur Radio Examinations that were held on Tuesday evening, December 12, 1989 at Strake Jesuit College Preparatory in Houston.

The V.E. Team and Assistants:

Carl Albrecht, AA5JW
Henry Morrison, W5RIY
Irene Gordon, N5AYX
Cass Germany, K6SIT
Stu Lamkin, W8S16G
Harold Parker, NDSF

A total of fifty-four (54) exams were administered during the evening to twenty (20) applicants. Six (6) unlicensed candidates received new licenses. Eleven (11) others upgraded their licenses with a total of thirty-two (32) elements passed. The overall "pass rate" for the evening was fifty-nine (59%) percent.

Congratulations to all the following who upgraded and/or passed exams:

William Eatwell - Technician
Henry Flowers - Novice
Thomas Garner, K8S1ES - General
James Giblin - General
Michael Gloystein, W056TH - Advanced
Jerry Goodson - General
Carl Hacker - Technician
Charles Kasbarian - Technician
Hillary Kasbarian - Technician
Horace Lyde, K8S1JMI - Technician
Robert Lyon - Technician
Roger Pokladnik - Technician
Charles Purchase, N5NPR - Advanced
John Sicard - General
John Summerfield - Technician
Tony Summerville - Technician
Douglas Tees, K856TB - 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.

HOUSTON CHRONICLE 12-29-82

Conrad

