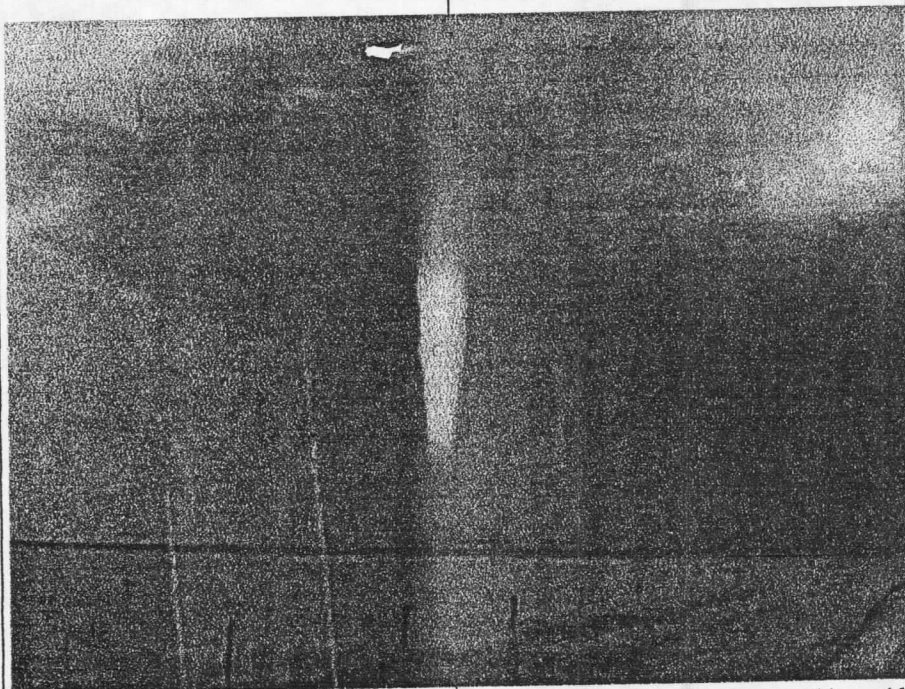# THE LOCAL OSCILLATOR

THE PUBLICATION OF THE PANHANDLE AMATEUR RADIO CLUB

PANHANDLE AMATEUR RADIO AND PUBLIC SERVICE

Public Service is the Key to the Future

With just under a hundred tornadoes in 1995 Texas Panhandle Amateurs working with the National Weather Service pay serious attention to weather conditions

If Amateur Radio survives the onslaught of powerful commercial interests like the "Little Leos" it won't be because amateurs wrote a lot of letters or because the ARRL is a powerful lobby. It will be because they provide public service.

The position the FCC or any other official body contemplating the future use of the radio spectrum must be the maximization of the public good. Will, for example, the public good be better served by continuing the present amateur allocations? Or will it be better served by allowing commercial enterprises such as the "Little Leos" to assume control? The traditional role of Amateur radio in public service has been one we are justifiably proud of. Your amateur license is not like your drivers license. It depends not simply on your staying out of trouble and within the law. It depends on the use you make of it. There are organizations within the amateur community devoted to public service. But they are all voluntary. It is up to each individual amateur to decide for himself where his or her talents can be best put to work.

The Amateur Radio Emergency Service (ARES) is more than 25,000 amateurs nationwide, and more than 150 amateurs throughout the Texas panhandle who have voluntarily registered their services and formed an organized pool of operators to provide primary and secondary communications links for governmental agencies and/or non-profit organizations when needed.

One of the major responsibilities of the Amateur Radio Emergency Services (ARES) in the Texas Panhandle is Skywarn. Skywarn is the National Weather Service (NWS) program of trained volunteer severe weather spotters. Skywarn volunteers support their local community and government by providing the NWS with timely and accurate severe weather reports. These reports, when integrated with modern NWS technology, are used to inform communities of the proper actions to take as severe weather threatens. Skywarn, formed in the early 1970's, has historically provided critical severe weather information to the NWS in time to get the appropriate warnings issued . Thus the key focus of the Skywarn program is to save lives and property through the use of the observations and reports of trained volunteers.

Despite the elaborate radar and forecasting equipment at the National Weather Service, they are only able to determine the potential for severe weather. They rely on reports from the public and law enforcement personnel and actual severe weather. Accurate and reliable information from the general public is difficult to obtain. Severe weather is complicated and confusing. The NWS has found that only regular training of weather spotters improves the quality of information. The National Weather Service (NWS) collaborates with ARES and others to put together training programs. The NWS brings its weather knowledge, the Amateur Radio Service brings its expertise in emergency communications, and together they work with local government and the Red Cross. The Amateur Radio's operators participation in the Skywarn program is formally acknowledged and encouraged in a Memorandum of Understanding (MOU) between the Amateur Radio Relay League (ARRL) and the NWS. This agreement indicates that ARRL will encourage its local volunteer groups operating as the Amateur Radio Emergency Services (ARES) to provide the NWS with spotters and communicators as requested by the NWS during times of severe weather.

Many civil disasters are the direct result of severe weather and/or are exacerbated by severe weather. Accordingly, the NWS may utilize the Skywarn Amateur Radio operators not only to obtain and disseminate severe weather observations and warnings, but may also use them to maintain close coordination with the Red Cross and Emergency Managers from local government entities. The importance of this additional role for ARES was demonstrated during the aftermath of Hurricane Andrew in August of 1992.

Trained ARES Skywarn observers provide the Weather Service with accurate, and timely reports from radio equipped cars and homes. The NWS is most interested in severe weather reports. Severe weather includes flash flooding, hail, damaging winds, a wall cloud (which is the area of a thunderstorm where a tornado could form) and a tornado funnel. If the NWS confirms severe weather with radar and other available information, it then notifies local authorities who then can activate Civil Defense sirens. The news media receives notification so they can make reports on local broadcast stations. During the 1995 severe weather season, ARES spotters had initial sighting of many of the 75 tornadoes which occurred in the Texas and Oklahoma panhandles. ARES spotters gave residents of Fritch, Texas over one hour warning of the approaching tornado in 1992 and also the Pampa tornado in 1995. ARES operators also provided needed communications during the aftermath of these disasters.

Skywarn volunteers donate thousands of hours and the use of their own personal radio equipment and vehicles to give their communities advanced warning of life threatening weather. Since the NWS instituted the Skywarn Program, there has been a significant decrease in the death rate due to tornadoes and other severe weather.

Local non-profit organizations such as The MS Society, VFW, and March of Dimes, utilize ARES to provide communications for walkathons, parades, and bicycle races such as "The Wild West 150". ARES is available to assist any governmental or non-profit organization with their communications needs, whether the needs are local, statewide, or worldwide. This service is available at no charge to the served

agency or organization. Potter/Randall County ARES/RACES Inc. is a registered non-profit organization

If you would like more information regarding ARES or the Skywarn program, please contact Jerold Mc Cown, District One ARES Emergency Coordinator, at (806) 662-1203, Vernon Alexander, Randall County ARES Emergency Coordinator, at (806) 665-0666, Ben Pollard, Potter County ARES Emergency Coordinator, at (806) 381- 8810, or write to ARES, PO Box 5378, Amarillo, Texas 79117.

Ben Pollard Potter County EC

MEETINGS

ARES
Aug 13   7:30 PM at Polly's Resturaunt
RACES
Potter CTY Aug 27 at EOC
Randall CTY Aug 20 at fire station

FOR SALE

Complete Packet station with PK3 TNC, 386sx-20 computer with 60MG hard drive. 2 floppies and keyboard. and Regency 2 meter transceiver.   Also Swan 350 HF rig and complete cell phone. The whole ball of wax $350 OBO Call Marshal, AB4ZA on his beeper 342-8601 or catch him on the air

MINUTES   OF JULY   PARC

MEETING

BY MONTY KC5OMK

Minutes of the July 1996 PARC meeting.
* Meeting opened By Joe
* Robert gave treasurers report and it was accepted by the membership.
*Minutes were read and approved by memberships.
* Don received special recognition as major contributor to organizing field day.
* The club considers field day a big success regardless of any scores made for contacts on the radio. The companionship, food, and fun was great!!
* (From Brett) The DVR upgrades continue.
* The instructors for the Ham classes will meet and make their game plan.
* If the station moves to a new building we may need to come up with 4-5 sections of Rohn 25g tower (not 2-3). The station lease has been secured by Robert.
*July 20 1996 JUNK in the TRUNK!!!
*Wally is looking into better ways to download the oscillator from the Internet/E-Mail..
* W1CUT Larry Campbell is a resident of Ware Memorial Center and is a Ham who might enjoy a visit. He is also needing a way to be able to key his 2 meter rig without having to use the PTT. If anyone can rig his Yaesu for use with VOX please come forward.
* We had a special guest from Amarillo Rocketry Club (Mr. & Mrs. Grahm). There will be a get together July 7, 1996 at Southwest Park at 4pm. all are welcome to observe.
* A raffle was held for some meals donated by Country Pride, Malcombs, and the Big Texan. These were won by Monty, Brett, and Richard. Please patronize these merchants and thank them for their support.
Monty Denney KC5OMK
denney@arn.net

PANHANDLE NET SCHEDULE

P.A.I.N. 146.94 8:00PM SUN *CLOUD CHASERS 145.92 8:00 PM MON * SIDEWINDERS 144.2 USB 8:00 PM MON *A R E S 146.52 8:00 PM THURS *PANHANDLE TRAFFIC AND EMERGENCY NET 3933 KHZ LSB 00:00 UTC DAILY *A M S A T 3840 KHZ 9:00 TUES *S W LYNX NET 147.56 6:00 PM THURS

President's Letter

I hope you enjoyed the junk in the trunk! I know I did. Hat's off to Don for those delicious burgers. It sure was nice to see all our friends out there as well as take home some new treasures. I even unloaded, uh, parted with some fine equipment myself.
On a more serious note it looks like the building changes discussed at the last meeting are going to take place. There will be a board meeting on July 30th to address this situation (see announcement elsewhere). If you have or know of a good home for the Panhandle Amateur Radio Club and our equipment please come forward now! As most of you know the club isn't exactly loaded with funds so buying that 10 acre antenna farm is not exactly in the picture at the moment. The board also hopes to discuss the ongoing educational plans as well. The next meeting at the W5WX club station on the ATC campus will be the last in that building. Hopefully the board will have a plan or two to present to the membership for approval dealing with this situation. The TENTATIVE date for the antenna

party is August 10th. More information will released as soon as it is available.

I would also like to take this opportunity to thank the faculty and staff of ATC for the support and assistance we have received and continue to receive in this and other matters. THANKS!

73, Joe

Satellite Roundup !!!!!

Australis-OSCAR 5

Australis-OSCAR 5 was launched January 23, 1970 by a Thor Delta launcher from Vandenberg Air Force Base, Lompoc, California. AO-5 was launched piggyback with ITOS-1 (TIROS-M weather satellite). Orbit 1476 x 1431 km. Inclination 101.8 degrees. Period 115 minutes. Weight 17.7 kg (9 kg of which was battery mass). Box shaped 304 x 431 x 152 mm. 2 meter monopole and 10 meter dipole antennas.

Firsts: The first amateur satellite to be remotely controlled.

Built by students at The University of Melbourne, Melbourne, Victoria, Australia. Battery powered, Australis-OSCAR 5 transmitted telemetry on both 2 meter (144.050 MHz at 50 mW) and 10 meter (29.450 MHz at 250 mW) bands that operated for 23 and 46 days respectively. Passive magnetic attitude stabilization was performed by carrying two bar magnets to align with the Earth's magnetic field in order to provide a favorable antenna footprint. The University of Melbourne compiled tracking reports from hundreds of stations in 27 countries.

References:
* William Dunkerley Jr., "Australis Oscar 5: The Launch Story," QST, Apr 1970, p. 61.
* David Bellair and Stephen Howard, "Australis Oscar - Its Design,

Construction and Operation," QST, Jul 1969, pp 58-61. * David Bellair and Stephen Howard, "Obtaining Data from Australis-Oscar 5," QST, Aug 1969, pp 70, 72, 82.
* Jan King, "Proposed Experiments with Australis-Oscar 5," QST, Dec 1969, pp 54-55.
* "Strays," QST, Mar 1970, p. 86 (a bibliography on AO-5). * Ray Soifer, "Australis-Oscar 5 Ionospheric Propagation Results," QST, Oct 1970, pp 54-57.
* Jan King, "Australis-Oscar 5 Spacecraft Performance," QST, Dec 1970, pp 64-69.

AMSAT-OSCAR 6

AMSAT-OSCAR 6 was launched October 15, 1972 by a Delta 300 launcher from Vandenberg Air Force Base, Lompoc, California. AO-6 was launched piggyback with ITOS-D (NOAA 2). AO-6 was the first phase 2 satellite (Phase II-A). Weight 16 kg. Orbit 1450 x 1459 km. Inclination 101.7 degrees. Box shaped 430 x 300 x 150 mm. Quarter-wave monopole antennas (144 and 435 MHz) and half-wave dipole antenna (29 MHz). Firsts: complex control system using discrete logic; satellite-to-satellite relay communication via AO-7; demonstrated doppler-location of ground station for search and rescue; demonstrated low-cost medical data relay from remote locations. Equipped with solar panels powering NiCd batteries, AO-6 provided 24 V at 3.5 W power to three transponders. It carried a Mode A transponder (100 kHz wide at 1 W) and provided store-and-forward morse and teletype messages (named Codestore) for later transmission. AO-6 lasted 4.5 years until a battery failure ceased operation on June 21, 1977. Subsystems were built in the United States, Australia,

and Germany.

References:
* Jan King, "The Sixth Amateur Satellite - A Technical Report: Part I," QST, Jul 1973, p. 66-71, 101.
* Jan King, "The Sixth Amateur Satellite - A Technical Report: Part II," QST, Aug 1973, p. 69-74, 106.
* John Fox and Ron Dunbar, "Preliminary Report on Inverted Doppler Anomaly," ARRL Technical Symposium on Space Communications, Reston, VA, Sep 1973, pp 1-30.
* Perry Klein and Jan King, "Results of the AMSAT-OSCAR 6 Communications Satellite Experiment," IEEE National Convention Record, NYC, Mar 1974.
* Perry Klein and Ray Soifer, "Intersatellite Communication Using the AMSAT-OSCAR 6 and AMSAT-OSCAR 7 Radio Amateur Satellites," Proceedings of the IEEE Letters, Oct 1975, pp 1526-1527.
* D. Brandel, P. Schmidt, and B. Trudell, "Improvements in Search and Rescue Distress Alerting and Location Using Satellites," IEEE WESCON, Sep 1976.
* J. Kleinman, "OSCAR Medical Data," QST, Oct 1976, pp 42-43. * D. Nelson, "Medical Relay by Satellite," Ham Radio, Apr 1977, pp 67-73.
* W0LER, "OSCAR 6 - Gone but not forgotten," QST, Nov 1977, p. 31.
Taken with permission from the AMSAT web page http://www.amsat.org

BOARD MEETING !!!!

There will be a special board meeting on Tuesday, July 30th at 7:00pm. The meeting will be held in the W5WX club station on the campus of ATC. All members are welcome. The topics will include the club station status and the upcoming ham classes.

URL OF THE MONTH.

Potter/Randall County ARES/RACES
http://www.users.arn.net/~dwilli

94 VOICEMAIL

It's finally here. After much fundraising and re-programming, it's on and it works. Here how to use the DIGITAL VOICE RECORDER. We have some new commands and we will step through them. We will demo the system at the next club meeting. This implements a voicemail concept called Public Mail. The system also has private mailboxes (if anything could really be private on a amateur repeater). The private mailboxes are not implemented, we can try this now and see if private mailboxes are something we want to do later.

AUDIO QUALITY

420 -- Audio Check

The next time you want to see how your audio sounds into the machine, you can listen yourself. Enter a 420 and then let the carrier drop. Key the machine and speak; whenever you unkey whatever you have spoken will be immediately replayed back. You can hear how the repeater hears your audio. The audio is automatically erased after repeating.

VOICE MESSAGING

425 -- Check for Public Mail

Enter this command to see if you have a voice message waiting for you. The controller will list the callsigns that have mail waiting. Up to 9 callsigns can have mail waiting. The order (1-9) that the callsigns are spoken

correspond to the message number that should be retrieved. If your callsign is spoken third in a list of five then you need to retrieve message number 3.

426 -- Record Public Mail

This command will allow you to leave a voice message for another amateur. It will prompt you to speak the call sign of the amateur you wish to leave a message for and then it will prompt you to speak your message.

427 X -- Retrieve Public Mail

This command will allow you to retrieve your message. X is the message number that is given by the 425 (Check for public Mail) command.

428 x -- Erase Public Mail

This command allows you to erase your message. X is the message number that is given by the 425 (Check for public Mail) command.

ANNOUNCEMENTS

We can now record voice messages for announcements. The announcement message will be repeated by the controller on the half hour, each hour.

430 -- Erase Announcement

This command will erase and stop the playing of a recorded announcement.

431 -- Record Announcement

This command will prompt you to record your message for announcement.

432 -- Check Announcement

This command will allow you to check the announcement after you record it.

Here is a summary of all the 94 Commands, Please remember to I.D. before and after entering any DTMF command tones.

```
*********************************
W5WX REPEATER 146.94 USER
COMMAND SUMMARY
*********************************
```

401 TIME
402 DATE
403 BATTERY VOLTAGE
404 DTMF TEST
410 PL ACCESS MODE (88.5)
411 REMOVE PL ACCESS MODE
NOTE: IF YOU GO TO PL ACCESS
YOU WILL NEED PL TO REMOVE
PL ACCESS

AUTOPATCH
301XXXXXXX DIAL NUMBER
XXXXXXX ON AUTOPATCH
302   HANGUP AUTOPATCH
303   LAST NUMBER REDIAL
304 XX   CHECK A USER SPEED
DIAL ASSIGNMENT
305   RESET AUTOPATCH
TIMEOUT TIMER

VOICEMAIL
420 AUDIO CHECK
425 CHECK FOR PUBLIC MAIL
426 RECORD PUBLIC MAIL
427 RETRIEVE PUBLIC MAIL
428 ERASE PUBLIC MAIL

ANNOUNCEMENTS
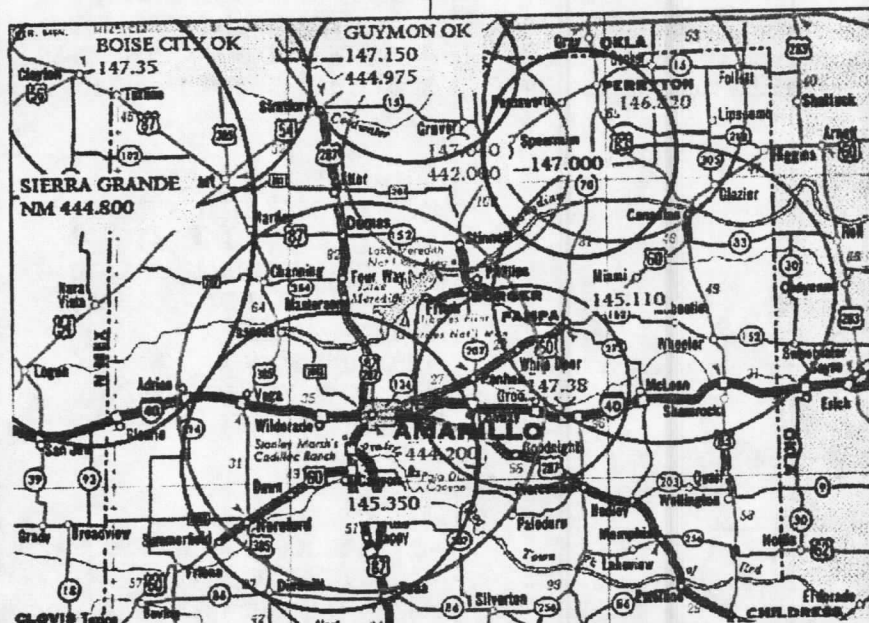430 ERASE ANNOUNCEMENT
431 RECORD ANNOUNCEMENT
432 CHECK ANNOUNCEMENT

USER SPEED DIAL NUMBERS
50 - KC5OMK
51 - KB5WIO
52 - KC5DKQ
53 - N5SQK
54 - KB5VLV
55 - KC5EZO
56 - KK5FK
57 - KC5JIF
58 - KC5QVU
59 - KE4UGV
Member's may request a speed dial number by contacting N5SQK.

EMERGENCY 911
note: autopatch 911 will ALWAYS
   ring Potter County S.O.
AMARILLO PD 80
AMARILLO FIRE 81
AMBULANCE   82
CANYON PD 85
CANYON FIRE 86

DPS 90
POTTER CO S.O. AND FIRE 95
RANDALL CO S.O. 96

CLOSED
BORGER 147.06 +600   WA5CSF
FRITCH 147.30 +600   WA5CSF
WHITE DR 147.38 +600   N5MGU

Caprock Intertie linked repeaters covers Texas and Oklahoma Panhandles, West Oklahoma, and Eastern New Mexico for complete skywarn coverage

TEXAS PANHANDLE REPEATERS

CENTRAL/AMARILLO

AMA 146.94 -600   W5WX 88.5
AMA 146.66 -600   W5WX
AMA 146.92 -600   WB5QLI
AMA 147.32 +600   N5IMO
AMA 147.56 SIMP N5LTZ 88.5
   SOUTHWEST LYNX
CANYON 145.35 -600 N5LRH
                88.5   CRI
AMA   444.20 +5.0 N5LTZ
                88.5   CRI
AMA   443.65 +5.0 WC5Y
AMA   444.475 +5.0 W5WX
                114.8 CLOSED
AMA   443.400 +5   RACES
                       CLOSED
AMA   52.650 -1.0   N5SQU

88.5 CRI

EASTERN PANHANDLE/OKLAHOMA

PAMPA   146.90 -600   W5TSV
MIAMA   145.11 -600   KA5KQH
                  88.5   CRI
CHILDRESS 146.96 -600   N5OX
ALTUS OK 146.79 -600   WB5KRH
ELK CTY OK 146.76 -600 WB5FBU
WODRD OK 146.73 -600 WA5PLW
ALTUS OK 444.100 +5.0 WD5BBN
WODRD OK 444.875 +5.0 WN5LUI
                        88.5

NORTHERN PANHANDLE/OKLAHOMA

GRUVER 147.150 +600 KY5C
                 146.2 CRI
GRUVER   442.00 +5.0   KY5C
                 146.2 CRI
SPEARMON 147.00 +600   CRI
PERRYTON 146.82 -600   CRI
BOS CTY OK 147.35 +600 CRI

GUYMON OK 147.150 +600 KY5C
                   136.5 CRI
GUYMON OK 444.975 +5.0 KY5C
                   136.5 CRI
TEXHOMA OK 147.375 +600 W0PFJ
FORGAN OK 147.39 +600 N5AKN

SOUTH PANHANDLE

TULIA   147.36 +600   KF5AO
PLAINVIEW 146.72 -600   W5WV
          (444.80+ 146.2)
ABERNATH 146.76 -600 WA5BRY
          179.9 (444.40+ 118.8)
LITFLD   146.64 -600   WA5BRY
          179.9 (444.85+ 162.2)
LUBBOCK 145.19-, 146.94- 179.9,
147.00+ 179.9, 147.2+ 162.2, 147.3+
  88.5, 224.82-, 443.95+, 444.00+
  118.8, 444.5+ 118.8, 444.7+ 67,
  444.9+ 118.8, 444.975+ 162.2

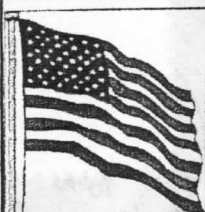WEST PANHANDLE/NM

SIERRA GNDE 146.85 -600 K5LMI
SIERRA GNDE 147.28 +600
   WA5IHL 100   MEGALINK
TUCUMNCAR 147.26 +600
   WA5IHL 100   MEGALINK
CLOVIS 147.24 +600   W5CSXP
CLOVIS 146.70 -600   K5RKL
CLOVIS 443.750 +5.0 WA5EMA
PORTALES 146.82 -600   N5HXL
ALBQ 145.29 -600 162.2 ZIA LINK
                        BCP 3-96

NEXT MEETING
Come to the next PARC meeting and learn all about the MARS program.

WHAT ARE YOU DOING THIS VETERANS DAY?

That's right, Veterans day is just around the corner. In March of this year the Veterans Day Parade Committee was formed and we began our preparations for this years parade. Our intent is to make this years parade the biggest ever seen in the Panhandle. We want to bring back the American Spirit; the memory of Heros as well as the pride to be an American.

There's just one catch though, we need more help. We need veterans and their families to take a proud stand and show this next generation what true Americans are made of.

If you are interested in being in the parade or know someone who is, let me know and I'll put you on our mailing list, and send you an application.

And by the way you don't have to be a Vet to be in the parade. If you just want to let them know you care and thank them for their sacrifice then come on down.

For more information contact me:
Jim Hammons
(806) 372-5589 before 4pm or Fax me at
(806) 372-4710
I'll be looking for you!

FCC OKAYS ELECTRONIC FILING FOR INDIVIDUALS BY VECs

The FCC said July 16 that it will permit VECs to file Amateur Radio Service license renewal and modification applications electronically on behalf of individual applicants. "This will provide for more efficient application processing for Amateur Service license grants.," the FCC said. As one of the country's 16 VECs, the ARRL/VEC will announce a start-up date to accept applications "once it has established its policies and procedures to administer this program," said ARRL/VEC Manager Bart Jahnke, KB9NM.

Participating VECs may charge a fee for the service. The FCC said that at the request of several Amateur Radio operators, it was waiving its rules that require a Form 610 hard-copy application.

Most VECs, including the ARRL/VEC, already electronically file all applications received from VE testing, a process the FCC said "has been highly successful in eliminating delays in obtaining licenses." The Commission said VECs will not be required to accept applications from individuals for electronic filing, and the FCC will continue to accept hard-copy license renewal and modification applications without a processing charge. But the FCC said it anticipates developing the capability to allow individual hams "to file their applications electronically and receive a license grant immediately."

Once the program kicks into gear, individual applicants--working through cooperating VECs--will be able to file applications for license renewal and modification electronically. Acceptable modifications will include change of name, change of mailing address, and change of call sign.

Consistent with existing procedures, when application data are forwarded electronically, the VEC must retain the actual FCC Form 610 documents for at least 15 months and make them available to the FCC upon request.

The FCC said that all other applicable rules pertaining to requirements for filing of applications are unaffected by the waiver, which can be terminated at any time.

From the ARRL Letter
July 26, 1996

PANHANDLE AMATEUR RADIO CLUB
PO BOX 10221
AMARILLO TX 79116

```
03/03/97 - Individual
CARL JEANS     N5YXN
6112 CALUMET
AMARILLO,TX   79106
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EXPANDED HOURS FOR NEW LICENSE, CALL SIGN INFORMATION

Information on new licenses and call signs soon will be available from ARRL/VEC 13 hours a day during the week. The ARRL/VEC inaugurates its new weekday-evening license information service Monday, August 5, 1996. With the additional evening hours, new license and call sign information will be available from 8 AM until 9 PM Eastern Time.

"With the fall examination season just around the corner, this new weeknight service will allow us to provide a more complete service to all our Amateur Radio licensing customers--especially those on the West Coast and in the Pacific and Alaskan areas," said ARRL/VEC Manager Bart Jahnke, KB9NM.

For new license information, call the ARRL/VEC at 860-594-0300 between 8 AM and 9 PM Eastern Time starting August 5. Before you call, however, please allow at least seven days for VEC and FCC processing of your new license application.

From the ARRL Letter July 26, 1996

W5 DX/Contest BASH Oct 5-6

This is an open invitation to all DX'ers, Contesters, and VHF'ers to attend the SIXTH Annual W5 DX BASH on Oct 5-6. The BASH is a GREAT social time, just like Dayton or Visalia, to meet and greet other DX'ers, Contesters, and serious VHF operators. Details on the BASH are on our web page at http://www.applink.net/tejas/w5bash.html
Check our web page for updates and other information including pictures of ops, stations, and other goodies.

Bryan W5KFT

Why ask why

Why isn't phonetic spelled the way it sounds?
Why are there interstate highways in hawaii?
Do you need a silencer if you going to shoot a mime?
Have you ever imagined a world with no hypothetical situations?
If you're in a vehicie going the speed of light,what happens when you trun on the headlights?
You know how most packages say 'Open here". What is the protocol if the package says,"Open somewhere else"?
Why do they put Braille dots on the keypad of the drive-up ATM?
 Why do we drive on parkways and park on driveways?
Why is it that when you transport something by car,it's called a shipment,but when you transport something by ship, it's called cargo?