



Matt Carpenter-KC5CGT

Guy Pigg-WZ5C

WELCOME TO THE INTERNET.

A very worthwhile program is on tap for this months P.A.R.C monthly meeting. Matt has made arrangements with ARNet, Inc. for a demonstration on the INTERNET. Prospects are in the works for placement of an INTERNET/PACKET connection here in Amarillo. Don't forget that this months meeting is at T.S.T.C. A big THANK YOU to those of you who submitted articles for this month. This edition is packed full of information coming up for February. Also, take note of the upcoming balloon launch!

73, Guy and Matt

Here is a list of frequencies and time for local nets:

P.A.I.N. Net-146.66 Mhz-8:00 pm, Sundays.

Cloud Chases Net (RACES)-146.92 Mhz- 8:00 pm, Mondays.

ARES Net-444.2 Mhz-7:30 pm, Thursdays.

Panhandle Traffic and Emergency Net-3.933 MHz - 00:00 UTC, Daily.

MidWest Section, AMSAT Net-3.94 0MHz -9:00 pm, Tuesdays.

Here are dates and times for activities and meetings in February.

Monday, February 6-Hamfest Committee Meeting, 7:30, TBA

Tuesday, February 7-Regular Meeting, 7:30 T.S.T.C, Bld 3500

(VE TESTING @ 6:00 PM)

Sunday, February 12th - Wide Area Fox Hunt, 2 PM at lot N.of Civic Center

Sunday, February 26th - Local Area Fox Hunt, 2 PM at Southwest Park

Tuesday, February 28th - RACES meeting, 7:30 at Old Police Academy..

Events at Club Station for February.

Club station open to all Sundays from aprox 12 noon until ? Call on 146.66 Mhz rpt.

Novice Roundup 0000Z January 28-2400Z February 5.

Texas Balloon Launch - Club station will be open at aprox. 7:30 AM, February 4th

Letter from the President.

Greetings!

I'll start by apologizing for missing my first meeting as president. I have a good excuse though. If you haven't heard I have a new harmonic (our first) Karen Renae. I was probably changing a diaper about the time the meeting got underway. Mother and daughter are doing fine and I should be at the next meeting out at TSTC.

Things are happening with Ham radio in Amarillo! We have a new 6 meter repeater preparing to come on (It may be on when you read this), work is underway on a high speed packet link to Lubbock, the Local Oscillator has gained weight as well. The hamfest should also have a home by the time you read this. Several other projects have either recently been completed or are nearing completion. These projects may not be directly sponsored by the club, but they are being done by active club members. We need you to get involved and make your club a better club for all of us. If you are a technical person the Local Oscillator is looking for articles. Can you cook? maybe you could take charge of the meals for Field Day. Can you paint signs, move chairs or take tickets? chat with the hamfest committee. What's my point? Everyone can contribute in some fashion. You'll feel good when you do it too!

It makes me feel good to see our members working hard on various goals, but what is even better they are having FUN doing it. I pledge to you that I will continue to do my best help guide the club forward. To tell the truth I am taking my lead from you. Let me know what you want and we'll see what we can do. I challenge you tackle something new with the P.A.R.C. in the next month. I have started a new column for the newsletter myself.

In conclusion I will repeat an old line. It is YOUR club! The more you put into it the more you will get out of it.

73,
Joe, KA0YOS

DEAR BOY SCOUTS,

MY SON JONATHAN AND I ARE MEMBERS OF PACK 431 DEN 11 IN AMHERST, NY. FOR THE MONTH OF FEBRUARY 1995 WE WILL BE HOSTING OUR DEN MEETING AT OUR HOME. FOR ONE OF OUR ACTIVITIES I WOULD LIKE TO HAVE OUR DEN SEND PACKET MESSAGES TO OTHER SCOUTS IN OTHER COUNTRY VIA THE SATELLITE PACKET SYSTEM. AFTER THE MESSAGES ARE RECEIVED THEN PLEASE SEND OUT QSL CARDS. WE HAVE 5 SCOUTS IN OUR DEN. AGES 7 AND 8. SO IF ANY INTERESTED DEN WOULD LIKE TO PARTICIPATE PLEASE RESPOND TO ME AT MY HOME BBS.

THANK YOU,
GEORGE KA2QYA
KA2QYA @ W2SEX.#WNY.NY.USA.NA

MEETING MINUTES PANHANDLE AMATEUR RADIO CLUB, Inc.

SOUTHWEST LIBRARY DECEMBER 6, 1994

Meeting brought to order by President Glenn Dallke, KB5VVM. Previous minutes read by Secretary Brett Sims, N5SQK and accepted. Financial report read by Treasurer Aaron Sims, KJ5ER and accepted. Aaron also presented a summary of the years income and expenses. The financial report was audited by Brett Sims, N5SQK.

OLD BUSINESS

Hamfest Report was given by Guy Pigg, WZ5C. The new T.S.T.C. Student center will not be available for the Hamfest. The Hamfest committee will be looking for alternatives. The Hamfest is now A.R.R.L. sanctioned. The Hamfest group is working on prizes, food service, and possible forum speakers. Flyers are expected to be out in mid-April. The proposed Constitutional change was discussed and voted. The vote passed to amend the constitution and eliminate the Board of Directors and trustees, and create a position of Station Manager. There are several technical (wording) discrepancies in the constitution, which were discussed by members. Brett Sims, N5SQK volunteered to go through the constitution and update it with regard to the amendment discussed here and the recent amendment to raise the dues. This will be presented to the membership during the next year for approval.

NEW BUSINESS

Ronnie Kerr, N5ZLU, Chairman of the nominating committee conducted the election for 1995 officers. 1995 Officers are as follows:

PresidentKA0YOS....Joe Mayfield
 Vice President.....KC5CGT....Matt Carpenter
 Public Relations..WZ5CGuy Pigg
 Secretary..... N5SQK.....Brett Sims

HAM OF THE YEAR

Brett Sims, N5SQK was awarded Ham Of the Year and presented a plaque, By Glenn Dallke, KB5VVM.

Meeting Adjourned.

From Jerold McCown, N5MGU, RACES DRO

(Ed Note: Jerold has been appointed the new RACES District Radio Officer. Guy, WZ5C)
 The all in one Skywarn meeting for 1995 will be held at the Amarillo Civic Center, March 18th, 1995. The BASIC class will start at 8:00 AM to 10:00 AM. The ADVANCE class will start at 10:00 AM. Lunch break at 12 noon and will restart at 1:30 PM. until 4:30 PM. We will have only one class for the Amarillo area this year, so everyone needs to plan for this one. If you miss, you will have to find one out of town. Also this year will not be like anything you have seen, so be there. Also would like to welcome the new ARES EC for Randall County, Mr. Vernon Alexander, N5LRN. Vernon will hold his meeting at the Canyon Fire Station, but the dates have not been set at this time. Will let you know later. 73, Jerold R. McCown, N5MGU

**MEETING MINUTES, PANHANDLE AMATEUR RADIO CLUB, INC.
SOUTHWEST LIBRARY-JANUARY 3, 1995**

Meeting brought to order by Vice-President Matt Carpenter, KC5CGT. Previous minutes read by Secretary Brett Sims, N5SQK and accepted. Financial report read by Treasurer Aaron Sims, KJ5ER and accepted.

OLD BUSINESS

Hamfest Report was given by Guy Pigg, WZ5C. The new T.S.T.C. student center may still be available for the Hamfest. Richard, KC5JIE and Reddy, KC5JIF reported that the proposal is being drafted to submit Bonham Middle School as a SAREX (Space Shuttle) mission contact. The lead time to approval is probably 6 to 7 months.

NEW BUSINESS

It was noted that the new President Joe, KA0YOS, was the proud Father of a new HARMONIC, KAREN RENE. Matt KC5CGT, gave an overview of the previous Executive Committee meeting. The overview was published in the previous LOCAL OSCILLATOR. Several members commented on the quality of the previous LOCAL OSCILLATOR.

Meeting Adjourned.

P.A.R.C. Email Service

No the P.A.R.C. doesn't have a server on the internet yet, but through the miracle of modern technology we do have a crude email broadcast system in place. If you subscribe to an on-line service like Compuserve, Prodigy, or America On-line you have an internet address. We are starting a service for members who have such access. This service will send announcements and reminders to the mailboxes of the users. These will be everything from meeting reminders to fox hunt announcements. This will NOT be a source of information unavailable elsewhere. You won't learn anything you wouldn't learn checking into the local nets, etc.

If you subscribe you will have a timely and convenient source of information. How do you subscribe? Just ask, the service is free to paid up members of the P.A.R.C. Subscribe by sending internet email to ka0yos@amsat.org asking to be put on the list. If you aren't sure about sending internet email from your service please call Joe Mayfield, KA0YOS and we'll see if we can help you.

In an effort to provide this information to computer and modem owners who do not have access to the internet. All of the messages will also be placed in the Ham Radio section of the Lumber Yard BBS here in Amarillo 381-8247. You will need to be a registered user to get to the Ham Radio section of the BBS. It is located on the ACes (Amarillo College) board under the Engineering and Mathematics section.

73,

Joe ka0yos

If you are in possession of an FCC Form 660, it is mandated that there are absolutely no excuses for not knowing what you are doing. If you are not sure of what you are doing it is also mandated to find out what you are doing.

From Troy Reno, Potter/Randall RACES

Potter/Randall Radio Amateur Civil Emergency Service (RACES) is looking forward to an exciting Severe Weather Season. The City of Amarillo is committed to purchasing Amateur Television (ATV) units for the 430Mhz and 900Mhz bands. This will allow personnel in the Emergency Operations Center (EOC) and National Weather Service (when equipped) to view live audio and video from field spotters. This will give emergency management and NWS a "real-time" account of radar indications. Testing of the system will hopefully start the beginning of February, and announcements will be made on various nets so that as many hams as possible can participate.

In addition, I am pleased to announce that Weather Watch (SKYWARN) training is scheduled for March 18, 1995. This training session is for ALL spotters, regardless of affiliation with the NWS. Participants from ARES, RACES, Civil Air Patrol, Amarillo Emergency Service, Red Cross and various other public and private agencies will be represented. The training session will be in the North Meeting Room of the Amarillo Civic Center, and will begin at 8:00 a.m. for beginning spotters, with advanced training scheduled for about 10:00. If you are interested in becoming a weather spotter, or need to re-certify your training, I urge you to make this session. There will be a make-up session in Canyon later in the month of March for those unable to attend.

As always, the RACES Cloud Chasers Net is every Monday evening at 8:00 p.m. local time on the 146.92 N5LTZ repeater. All amateurs are welcome. In addition, if you are interested in RACES and the role we play with local government, we welcome you to attend our monthly meetings, the last Tuesday of each month at the AES Operations Center on Line Avenue. North on Fannin from 10th street, (near 10th & Georgia), and cross the gate.

More news hopefully next month on ATV and Weather Training. Until then, '73!

Troy M. Reno
KB5LPM

Pampa Amateur Radio Club Notes

The Pampa ARC meets the first Monday of each month at the Sirloin Stockade, 518 North Hobart (Highway 70). Members usually arrive around 6:00 PM with the formal meeting starting at 6:30. Tom, KA5ATA is the current president.

The Pampa ARC also meets informally each Saturday morning at Scotty's, 123 North Hobart. Coffee, breakfast and assorted lies are available beginning at 8:00 AM.

Pampa Amateur Radio Club Repeater: The Pampa ARC is proud of their repeater on 146.30/90, W5TSV/R. An informal net is held each Wednesday at 8:00 PM. Net Control rotates among club members and guests are very welcome.

Pampa Amateur Radio Club Node: W5TSV-2, 145.01 MHz.

Guest are always welcome at PARC functions. Membership remains \$18.00 per year and is available via Herman, W5IJQ.

Texas Balloon Launch

The North Texas balloon project will launch it's sixth high altitude balloon experiment carrying amateur radio payloads on the 4th of February, 1995. The payload carries a variety radios and instruments that can be easily used by any amateur with a Technicians license or above.

The launch will be from Cleburn or Clifton, Texas at approximately 8:00 to 8:30 AM. In the event of inclement weather, the launch will be delayed to the next day, and then to the next Saturday (the 11th). There will be a pre-launch net at 8:30 PM on the Ft. Worth 146.76 repeater the evening before the launch. The morning of launch there will be an HF net on 7.155 MHz +/- QRM. The Net control station will probably be W5IU.

Approximately two hours after launch, the balloon is expected to reach an altitude of 100,000 to 105,000 feet before burst. At this altitude the area of visibility will be about 400 miles in any direction for a total 800 miles communications range. In past missions, there have been QSO's between Corpus Christi, TX and Salina, Kansas.

The following is a list of the available experiments onboard:

Crossband FM Voice Repeater: There will be a crossband FM repeater open to all. The uplink frequency will be 147.580 MHz and the Downlink will be on 445.850 MHz.

Packet Telemetry on 144.290 MHz: This receive only packed information will be the data downlink of the mission. The packet format is the common 1200 baud AFSK found in all TNC's. The data will be presented in an easy to read format and no conversions will be required.

GPS: Precise longitude, latitude and altitude data will be provided by a donated Rockwell NavCore V GPS receiver. The following data will be measured and can be seen on the 144.290 MHz packet downlink: * UTC day and time * Longitude * Latitude * Altitude * Bearing * Velocity * Velocity up.

Telemetry: There will be onboard 12 bit, 8 channel Analog to Digital converter. Seven of the eight channels are used to measure the following: * Inside Temperature * Outside Temperature * Barometric Altitude * Main Battery Voltage * ATV Battery Voltage * Alkaline Test Battery Voltage * NiCad Test Battery Voltage.

ATV: There will be a live, full motion, Amateur Television camera and 10 Watt transmitter onboard. The downlink frequency will be 439.250 MHz. This frequency was chosen to exactly correspond to Cable channel # 60. With an outdoor TV antenna (or other 440 MHz antenna) and the TV tuned to Cable channel 60, it is anticipated that an acceptable pictures can be obtained. The camera will be remotely pointed via ground command to any of 256 possible positions. QSL's can be had through KG5OA via the Callbook address. (From Joe Mayfield, KA0YOS)

<Fox Hunting / Satellite Round Up>

I was approached by the editors of the Local Oscillator to start a column on Fox Hunting (transmitter hunting). My first love/addiction in Ham radio was/is satellite operations and equipment building. Fox Hunting is kind of a new thing for me. I've done it off and on through my radio career and currently devote a fair amount of energy to it. So, I thought I would compromise and alternate with monthly columns on OSCAR and Fox Hunting. Let's start with Fox Hunting.

Transmitter hunting is NOT an exact science. That's what makes it so much fun! As the months continue I will try to provide tips on hunting and point you toward sources of good Fox Hunting information. Far and away the best source of Fox Hunting information is 73 magazine. They run a monthly column called 'Homing In' which is a great source of ideas and information. Other Ham publications provide interesting articles from time to time, but 73 has something every month.

One of the beauties of Fox Hunting is that equipment need not be expensive or complex to be effective. Practise is the best way to gain efficiency. There are 3 popular ways to search for transmitters and each system has its strong points and weaknesses. In the coming months this column will explain in detail how to build effective DFing (direction finding) equipment using all three of the popular techniques.

First lets explain the three techniques. The first is probably the most straight forward. Directional antennas with attenuators can be used to locate transmitters. These systems are easy to use, and are very effective with weak signals. Just turn your beam until you get the strongest reading and go that direction. A good attenuator is a must with this system to keep your receiver from being overloaded. The draw backs are usually large antenna size, and poor direction resolution (wide beamwidth). One way to increase effectiveness is to know your antenna pattern and actually use the antenna nulls to home in.

Method number two is the TDOA (time delay of arrival) method. This uses two antennas and provides the user feedback as to the time difference when the signals arrive at the antennas. The feed back is often a tone that goes away when the signal reaches both antennas at the same time. Additional information can be obtained from the phase of the signal coming from each antenna to determine which antenna is closer to the transmitter. These systems are usually compact, and fairly immune to overload. The problems are they are susceptible to multi path and intermod signals. Also the null appears in two directions.

The third method of hunting is a Doppler system. These systems use multiple antennas (four or more) and measure the Doppler change between the antennas to determine the direction of the transmitter. These systems are hard to beat for effectiveness and ease of use. The draw backs are greater expense and difficulty in calibrating. These systems are also vulnerable to multipathing, picket fencing, and intermod.

In two months we'll look at getting started with an inexpensive system you can build.

73, Joe ka0yos

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hobbie, it's a bunch of metal
things sticking out of peoples
yards!!!**