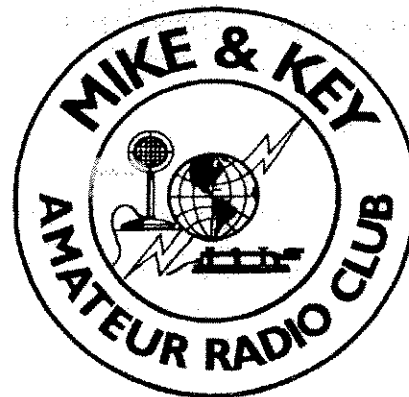


K7LED RELAY



The RELAY is the official tabloid of the Mike and Key Amateur Radio Club. The Mike and Key is dedicated to the growth and betterment of Amateur Radio. We meet the third Saturday of every month at the Salvation Army Renton HQ, 720 Tobin St., near the SE corner of the Renton Airport. The Club operates repeaters on 52.05-53.05, 146.22-146.82 (PL 103.5), and 222.52-224.12 under the call K7LED. The following nets meet on 146.82: Club Net, Wednesdays at 7:30PM; Public Service Net, Thursdays at 7PM. The Club mailing address is: PO BOX 2121, Kirkland, WA 98083. All persons interested in Amateur Radio are invited to participate in the Mike and Key Amateur Radio Club and it's activities. Yearly dues - \$12,single \$18,family.

VOLUME 22

October 1994

NUMBER 10

PRESIDENT	- Nils Hallstrom, WB7TJK	Tel:242-8271	TRUSTEE #1	- Chuck Benefiel, N7STR	Tel:279-1517
VICE-PRESIDENT	- Jan Van Allen, N7WJB	Tel:824-9039	TRUSTEE #2	- Dan Humphrey, N7QHC	Tel:243-0163
SECRETARY	- Ryan Martin, N7TNI	Tel:631-5370	TRUSTEE #3	- Lewis Navarre, W7QMP	Tel:824-2935
TREASURER	- Jack Burrell, KB7ZS	Tel:454-3617	TRUSTEE #4	- Chuck Stroehrer, WA7EBH	Tel:392-5303
ACTIVITY MNGR	- Tom Patterson, N7VDU	Tel:432-1500	TRUSTEE #5	- Michael Hansen, KG7MX	Tel:232-1069
RADIO OFFICER	- Ken Rau, K7YR	Tel:222-7711	EDITOR	- Michael Dinkelman, WA7UVJ	Tel:854-4031

RELAY EDITOR
MICHAEL DINKELMAN
 637 2ND AVE S
 KENT WA 98032

NEXT BOARD MEETING
 October 25 @ 7:30PM
 Salvation Army HQ
 720 Tobin, Renton

NEXT CLUB MEETING
 October 15 @ 10AM
 Salvation Army Renton HQ
 720 Tobin St, Renton
 Doors open at 9:30AM

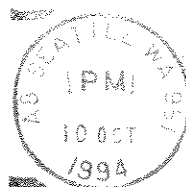
PETE HEDBERG, K7WTG
 Dues Expire: 1/1/95
 20904 NE 77TH ST
 REDMOND, WA, 98053

Program: YL DXpedition Slide Show, presented by Mary Lou/NM7N

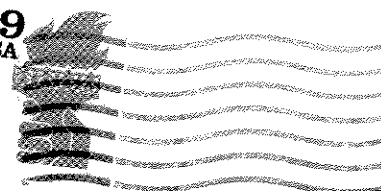


CQWW, SSB EDITION, OCT 29-30
ARRL SWEEPSTAKES, CW EDITION, NOV 5-6

DEADLINE FOR NOVEMBER RELAY SUBMISSIONS - NOVEMBER 10
CHECK MAILING LABEL FOR DUES STATUS



**29
USA**



FIRST CLASS MAIL

Budget Ideas Due

Submitted by Michael, WA7UVJ

As the members of this Club will be required to approve a budget in December (for next year), the Budget Committee is getting ready to make the decisions on how your Club funds are divvied up - this month.

Budgets are only approved or disapproved by the General membership. That means it cannot be modified during the vote. If you have any particular wants, desires, or dislikes; you should let the members of the Budget Committee (the Trustees) know as soon as possible. They would probably appreciate some input.

Band Competition is Fierce

Submitted by Al, KB7THX

International broadcasting in the HF spectrum began in the early 1930's in Great Britain, Germany, Italy and the Soviet Union.

In most instances, programming was simple. Britain, for example, originally broadcast only in English to the dominion countries of its empire. In 1937, a second language, Arabic, was added to counter the rising threat from Italy, which was broadcasting Arabic programs into Middle East regions, an area where Britain had powerful interests. That date may be regarded as the beginning of the propaganda war. By the end of WW II, Britain was the world's largest propaganda broadcaster with 850 program hours a week in 46 different languages. This total was more than the combined output of both the US and the former USSR.

By the mid 1950's 31 nations were involved in international HF broadcasting and by 1990 the figure had risen to more than 150. Compared to the 1930's when the HF spectrum was uncluttered, when man made noise was not a problem, and when a 20KW carrier was capable of clearly reaching around the world using AM, by the late 1980's, congestion had caused a spiraling in transmitter powers. There are now more than 200 500 KW HF transmitters in service and more are scheduled.

Today AM broadcasts in the HF

band from 5.9 to 26.1 MHz is used as a foreign policy instrument by governments seeking to extend their influence. Though all international broadcasters have regular listeners, many others tune to the loudest signal on the band, thus a competitive element is introduced. As a result the incentive is for governments to make continued investments in transmission systems and stations aimed at increasing the audibility of their HF international signals. The end result is that the ham radio operator must deal with increased QRM and foreign broadcast competition, especially on 40 meters. 73.

C-COMM Moves On

Submitted by Michael, WA7UVJ

The only thing constant about life is change. Don't know who originally said that but after many years, the Amateur Radio retail arena has significantly changed in Seattle. As of October 1, C-COMM has sold its Amateur Radio Division to Amateur Radio Supply to concentrate on the Commercial side of the radio business.

George/K7HBN expresses his appreciation for all the support that has been given to C-COMM over the past years. He also hopes that Club members "will support ARS (Amateur Radio Supply) in their efforts to establish a strong local presence in amateur radio sales". C-COMM will continue to offer repair services for Ham equipment including factory authorized service.

Although Ballard was too far away for more than the occasional visit, I know I'm gonna miss seeing George at all the Hamfests (especially ours) and his picture in the Ham ragsheets. We wish both C-COMM and Amateur Radio Supply good luck in their respective endeavors.

Les Jacobs/WN7NXC**- Silent Key**

Submitted by Ken, K7PZX

Les Jacobs was born March 24, 1926 and became a Silent Key on August 26, 1994. He is survived by his wife Carol, daughter Leslie, sons Richard and Jim, and two grandchildren. He has a brother, Ken, in Virginia.



First interested in radio in the late '50s, Les got involved in CB. Later on, he became associated with members of RACES and worked hard to get his license. When the ticket arrived it was as WN7NXC. Later on, when he upgraded, he received WA7NXC (as was usual) but later requested and received his old call back and remained WN7NXC from that point on.

A carpenter by trade, he primarily performed remodeling jobs in his later years. He enjoyed camping and trailering in Gold Bar with his lovely wife, as well as computers and Amateur Radio.

Les was active in the Mike & Key during the 70's and 80's until his health became an obstacle due to diabetes and heart problems. To know him was to love him, he was full of fun and good humor. He liked to tease and be teased.

He will be missed by all who knew him. God bless you Les, Rest in Peace.

Still More from the Old Goat

Submitted by Gib, W7JIE

Submarine cable telegraphy was interesting and useful. I worked on the Seattle-Ketchikan and the Ketchikan-Seward cable system during WW II. I was both an operator and a technician. Last month I told about the keying system. Obviously there was no sound! No dits, no dahs, and no squeals, just a system operating. How then, did one receive? Ah-ha therein lies the words for this month's tour through old time traffic handling.

Consider that the far end is sending International Morse Code using the two-handkey system. At the receiving end comes in a very small voltage of maybe a half-volt. Not much to work with but enough to use. At the receiver is a instrument affectionally called a "mouse-mill"! It stood about 18 inches high and about a foot square. On the back side of the mill was a small weighted wheel to give the machine a steady RPM. It had a small DC motor to drive the weighted wheel and once



started it ran very smooth forever. On the right side of the square box was a support arm that held an 8 inch reel of white paper tape about a half inch wide. This paper tape was fed thru a small puller wheel (driven by the motor and weighted wheel), and then to a small metal flat unit on the left side of the box.

Above the paper drive wheel was a small half-inch ink well. Suspended over the ink well and molded (by a match or lighter) into a shape like a distorted letter 'u' was a tiny glass tube. One end into the ink well and the other end just touching the paper. The suspension of the glass tube was hooked to an armature similar to a meter movement. It was placed in such a way that when the cable received a positive voltage the glass tube moved toward the near side of the paper and when it received a negative voltage it moved to the far side of the paper tape. When no signal was received, the ink-filled glass tube stayed in the center of the tape.

With the small voltage received from a 500 volt input, the small signal had to be handled carefully and that's why such a small recorder device was used. It reacted to the small voltages by "writing" on the paper tape. The receiving operator fed the tape across a small tape holder mounted on his typewriter and wound up on a take-up reel. Sight reading the positive and negative markings from the ink-well, the operator translated the information into a message for delivery or relaying. (At Seward we used a model 15 TTY to relay traffic on to Anchorage).

Of course, sending speed was slow because of the cables electrical resistance to rapid voltage changes but I can assure you that it was a busy place. This was in 1942 and war was hot and heavy. We would send for an hour and then receive for an hour. Try doing that for 8 to 12 hours a day with no sand-box breaks either! 24-Hours of traffic for months on end. Kept my waistline down too.

Eventually this operation was mechanized and operators became technicians. More on that next month. 30 de W7JIE.

Elections

Submitted by Michael, WA7UVJ

Those who are ARRL members should be receiving their ballots in the mail shortly if not already so. We are some what blessed in this Division by having a number of concerned and qualified candidates. As I read QST, I am appalled at the number of **uncontested** elections that occur each year in other Divisions.

There are three candidates for the Northwest Division Directorship. In alphabetical order; Mary Lou Brown/NM7N, Don Clower/KA7T, and the current Director, Mary Lewis/W7QGP. There are two candidates for Vice Director; Clay Freinwald/K7CR and Gregory Milnes/W7AGQ.

If you are an ARRL member in good standing, please be sure to vote for the candidate of your choice.

"Better than Sex (Chocolate)"

Submitted by Debbie, KB7QMQ

(Originally found in the Seattle Times)

(Editors Note: Part two of the winning recipe at the Mike & Key ARC annual picnic. This is for those of us who need that chocolate fix.)

Chocolate Better-than-Sex-Cake

Cake

- 1 1 pkg cake mix
- 1 pkg (12oz) semi-sweet chocolate chips
- 4 eggs
- 1/2 cup vegetable oil
- 1/4 cup water
- 1 tsp vanilla
- 1 pkg (4oz) instant chocolate pudding/pie mix
- 1 cup sour cream

Frosting

- 1/2 cup butter/margarine
- 1 cup brown sugar
- 1/4 cup evaporated milk
- 1/4 cup sifted powdered sugar
- 3/4 cup pecans, toasted and chopped

1. In bowl, combine 2 Tbl of the cake mix with the chocolate chips and pecans. Stir to coat and set aside.

2. Combine remaining cake mix, eggs, oil, water, vanilla, pudding mix, and sour cream. Mix well with electric beater. Fold into chocolate chips and nuts.
3. Pour batter into a greased and floured 12-cup Bundt pan or tube pan.
4. Bake in preheated oven (350°) for 55 minutes or until cake pulls back slightly when lightly touched with finger. Let cool for 25 minutes then invert, removing from pan and allowing to cool completely on a wire rack.
5. For frosting, melt butter in saucepan. Add brown sugar. Cook, stirring constantly, until mixture bubbles. Add milk and continue cooking until smooth. Remove from heat and add powdered sugar, whisking until smooth. Apply to cooled cake.

Maple Valley Ham Classes

From the Maple Valley ARC Newsletter

Fellow Club member (and Activity Manager) Tom Patterson/N7VDU will be starting a No-Code Technician class at Tahoma High School in Maple Valley. Classes will be held on Thursday starting October 20th.

There is a course fee of \$20 and a Materials fee of \$19. Call Tom for more info at 432-1500.

Witticisms

Submitted by Dan, N7QHC

If a man has enough horsesense to treat his wife like a thoroughbred, she won't turn into an old nag.

WANTED

Used 2 Meter Hand Held. Must have separate Mike and Earphone connections which quiets speaker. Would prefer dual band capability (144/440). No ICOM's please. Bill/W7PRR 246-2982

General Membership Meeting Minutes 9/17/94

Submitted by Ryan, N7TNI



Present were:

President Nils/WB7TJK, Treasurer Jack/KB7ZS, Secretary Ryan/N7TNI, Activity Manager Tom/N7VDU, Radio Officer Ken/K7YR, Trustee #1 Chuck/N7STR, Trustee #3 Lew/W7QMP, Trustee #4 Chuck/WA7EBH, Trustee #5 Michael/KG7MX. Vice President Jan/N7WJB and Trustee #2 Dan/N7QHC were excused.

Call to Order and President's welcome.

Pledge of Allegiance

Nils announced that Les Jacobs/WN7NXC had become a Silent key. He had been a club member since 1972. A moment of silence was observed in his memory.

Introductions:

Officer Reports:

President - Nils/WB7TJK reported that the Field Day critique meeting had been held this morning at 09:00. Some good ideas were presented, and work will be done to implement them. Nils mentioned that there has been lots of talk and rumors about the club's diesel motor/generator. This topic will be covered later in the meeting by Chuck/WA7EBH. Jan/N7WJB is unable to attend today's meeting, due to his work shift being changed for an indefinite period. Nils will present the Vice President's report today.

Vice President - Nils introduced the candidates for membership. They were Nick Crolli/KC7EEP, Mike Foster/N7GVQ, John Riley/KC7AVD, and Barry Boyce/KC7BZC (not present). The club membership voted to accept all of the attending candidates as members.

Secretary - Ryan/N7TNI had nothing to report. Nils called for approval of the minutes of the August membership meeting, as published in the September RELAY. Chuck/WA7EBH moved that they be accepted as printed. Motion was seconded by Chuck/N7STR, and the membership voted to accept as printed.

Treasurer - Jack/KB7ZS. Gave his report on the financial status of the club, and had the books available for the members to inspect if desired.

Activity Manager - Tom/N7VDU: Today's program will be a video on DXing. October's program will be Mary Lou Brown/NM7N with a slide presentation of a YL DXpedition to St. Pierre's Island in Eastern Canada. November's program will be on Cellular Telephones. Due to scheduling difficulties, the tour of ICOM will be done in January. Frank/KA7QHC suggested that in lieu of a program in December, we should have a social gathering where the members

could just visit. Ken/K7PZX suggested members might want to bring a donation of food or toys for The Salvation Army to distribute. Tom announced that starting in October, he will be teaching a Novice/Tech no code course at Tahoma High School in Maple Valley. The class will start Thursday October 20th. Contact Tom if you are interested in more information. There will be a raffle this morning, with prizes of an ARRL Operating Manual, a 1994 ARRL handbook, six tickets to the Puyallup Fair supplied by Jim/K7ND, a year's subscription to World Radio, and a frequency chart.

Radio Officer - Ken/K7YR reported that he will be able to order the equipment for the new 2 meter in about a week, after he gets back from vacation. He has had a very busy summer. He has been working on the legal details for a new repeater site. The 220 repeater has been working without any problems. Ken thanked the users of our club's 2 meter machine for the way they are conducting themselves. Ken is still noticing users who are trying to use rubber duckie antennas inside of cars, or who have bad audio levels. Chuck/N7STR asked if we could have another radio tune up session, Ken will try to coordinate this with the Activity manager. Lew/W7QMP mentioned that the tone on the 2 meter repeater seems to be getting turned off at times. Ken said that if power to the repeater drops the tone goes away. The repeater site has emergency power, but there have been quite a few power tests, this may explain the situation.

Chairman of the Board - Chuck/WA7EBH reported on the diesel generator which was donated to the club a number of months ago. What we thought was a 45 KW unit turned out to be only 15 KW. Along with the main unit, we also received assorted spare parts. The board had authorized expending up to \$250.00 to have NC Machinery evaluate/repair the unit. NC Machinery proceeded to restore the unit, and ran up a bill of almost \$1500. There was a special board meeting this morning at 09:00. The board voted to recommend to the club that we dispose of the unit and the spare parts by donating them to NC Machinery. We feel that the spare parts will make up for the money they have expended repairing the engine. This recommendation was presented to the membership as a motion, which was seconded from the floor. After discussion, the membership voted to dispose of the motor/generator and parts. Al/KB7THX, Michael/KG7MX, and Nils/WB7TJK will go to NC Machinery to negotiate the terms of the donation.

The Flea market is moving along, the meetings are the first Thursday of each month, at 1930 here at the Salvation Army Headquarters. Chuck thanked everyone who helped out with the SeaFair events this year. He asked for help on the Issaquah salmon days parade on October 1st, and had sign up sheets available. This event will require 26 - 30 hams, and should be over by noon.

Committee Reports:

Public Service - Larry/N7USB reported on the meetings the committee has had, and had published a report. He would like the Technical committee to

check out the antennas that the Salvation Army has on some of it's facilities, to see if they are functional and useful for amateur communication. The facilities committee may also need to be involved. He invited any interested persons to attend their next meeting, to be held at the South Center Denny's, Thursday October 20th at 19:00.

Technical and Special Interest - Mike/WA7AYU reported that the committee has not met as a whole recently. They are looking for people to come to them for information or help. The committee has not defined the areas they will specifically address. Mike asked for feedback on those who have used the MFJ 259 antenna analyzers, and how they are being used to solve their problems. The committee is also looking for additional members.

Facilities and Planning - Al/KB7THX reported on a meeting he and Nils had with Captain Halvorson of the Salvation Army. They filled him in on the history of our club's relationship with the Salvation Army. The meeting went very well. Captain Halvorson is willing to support anything that Major Nottle had agreed to in the past, and seems to be very willing to work with us.

ARRL - Harry/W7JWJ reported the Mary/W7QGP is at the Anchorage flea market today, and will be in Fairbanks next week. Back in July, the ARRL board authorized all of the staff members to go on the Internet, feel free to contact any of them. All messages returning to you will also have a copy forwarded to the director. Mary is averaging about 240 messages a month on Internet, and a little over 100/month on MCI mail. Mary's address on Internet is MLEWIS@ARRL.ORG. Yesterday the Clinton administration confirmed that we do not have to go off the air if Haiti is invaded. Military traffic will have priority on our frequencies, so if you hear them, it's because they have the right to be there. On a personal note, Harry reported that he made it through Field Day, two major surgeries, three trips to the emergency room, and his sister passing on the day before his surgery, and another meeting here, so he thinks he may survive.

Field Day - Donald Kent/KB7UYA was introduced by Nils. He reported that he is just getting started at sorting through all the information Nils gave him. Don is looking for ways to improve the event for '95, and hopes to have an early organizational meeting sometime in October, he will have something in the RELAY.

Net Report - Frank/KA7QHG: If you are getting bored at night and don't think anyone is on 10 meters, listen on 28.360 at about 21:00, where you will usually find Lloyd/WA7HNY. There is also the Chief Seattle net, held on 28.625 every night at 20:00 except for Thursdays, when the frequency is 28.425. Lew/W7QMP runs this net. If you are a new ham who doesn't have HF privileges, check into the 2 meter net held every week on Wednesday evening at 19:30 on the club's 146.82 repeater. This is a casual check in net, so you can get acquainted with the ham radio community. This month, the Golden Alligator was not available at the meeting, but Frank and his helpers continue to listen for

worthy recipients.

Old Business - The instant water heater tank should be delivered to Jerry Sampont at the beginning of next week, and Nils has the 15 gallon conventional tank ready for transport. Once both tanks are available, they will be taken up to Fort Flagler.

Frank/KA7QHC mentioned the Education night at ARS. that is coming up on September 20th at 19:00. Lew/W7QMP has been asked to fill in for Jan/N7WJB, who will not be able to attend. A question was raised if the name tags had been sent to the meeting today by Jan. Lloyd/WA7HNY reported that Jan is mailing out the name tags that have not been claimed.

New Business: Nils checked his notes, and reminded us that September is the time for the Audit Committee to start getting ready for the December audit report.

Announcements for the Good of the Order: Lew/W7QMP reported that Clarence Williams/W7JNP had become a Silent Key on August 30th.

Rick/KF7VG is looking for someone to teach a General Class theory course for the BEARS club. Contact Rick if you are interested.

Nils called a break at 11:13

The program was a video on DX'ing.

Raffle: The winners were: G. Ray/KB9HHK - 2 tickets to the Puyallup Fair, Stacy/KB7YYY - 1994 ARRL Handbook, N7VMW - subscription to World Radio, Robert/AA7ZC - Frequency chart, Pete/N7UIF - Operating manual, and Carl/W7PRW - 4 tickets to the Puyallup Fair.

Special Board Meeting 9/17/94

Submitted by Ryan, N7TNI

A special meeting of the board was held prior to the September club meeting, specifically to address concerns about the diesel motor/generator. Nils/WB7TJK, Jack/KB7ZS, Lew/W7QMP, Ryan/N7TNI, Chuck/WA7EBH, Michael/KG7MX, and Chuck/N7STR were in attendance. Frank/KA7QHG was a visitor.

Chuck called the meeting to order. Chuck wanted the board to resolve what to do with the generator, so we could make a recommendation to the club today. The board had earlier authorized the expenditure of up to \$250.00 to have NC Machinery evaluate/repair the equipment. We found out that they have run up nearly \$1500.00 in repair charges.

Consensus of the board members was to dispose of the generator. Chuck/WA7EBH recommended that AI contact the people at NC Machinery, and offer to give the unit and spare parts to them, since they have expressed an interest in displaying the equipment in their company museum. The board felt that we should attempt to give them the equipment in exchange for them forgiving the labor charges. If

they insist on payment, let them know we are only willing to pay them \$250.00 we committed to up front.

Chuck/N7STR made the motion that we dispose of the generator and all associated parts, seconded by Nils/WB7TJK, and the board unanimously approved. This motion will be presented to the membership at the September membership meeting.

AI/KB7THX, Nils/WB7TJK, and Michael/KG7MX are willing to present our idea to N.C. Machinery. They will get a document detailing the transfer agreement.

Board Meeting Minutes 9/27/94

Submitted by Ryan, N7TNI

Present were: President - Nils/WB7TJK, Treasurer - Jack/KB7ZS, Secretary - Ryan/N7TNI, Activity Manager - Tom/N7VDU, Trustee #1 - Chuck/N7STR, Trustee #2 - Dan/N7QHC, Trustee #3 - Lew/W7QMP, Trustee #4 - Chuck/WA7EBH, RELAY Editor Mike/WA7UVJ. Visitors were AI/KB7THX, Dawn Humphrey, Donald Kent/KB7UYA, Eleanor Leslie, Frank/KA7QHG, Ray/WA7EKH

The meeting was called to order by Chuck/WA7EBH at 7:30 PM. He called for approval of the board minutes, as published in the RELAY. Nils/WB7TJK moved they be approved, seconded by Lew/W7QMP. The board voted to approve.

Officer Reports:

President, Nils/WB7TJK said AI/KB7THX would make a report later on the generator issue. Nils talked to Jerry Sampont, who should be getting the instant heat water tank later this week. It is a four gallon under the sink unit, costing about \$126.00. After it arrives, it will be delivered to Fort Flagler along with the 15 gallon water heater that has also been donated. Nils talked to Jan/N7WJB, who does not know for sure what his permanent new shift will be. As soon as Jan knows more, he will let the club know if he will need to resign his office.

Vice President, Jan/N7WJB was not able to attend, due to work schedule conflicts. Nils gave his report. There were three applicants for membership. They were Rob Adams/KC7FBN, Gloria (Jennie) Svenungsen/KC7EEY, and John A. Wilson/KA7RQU. Rob had not included the required payment of dues with his application, so he will have to forward payment to the club before his membership can be voted on by the club. With that understanding, the board voted to pass on these application to the club membership for vote.

Secretary, Ryan/N7TNI had received three pieces of correspondence. They were the ARRL letter, a list of the new licensees in the area, and the current issue of the Radio Club of Tacoma's newsletter, the Loggers Bark. Ryan forwarded the ARRL material to Nils/WB7TJK so he can send club information to the new hams.

Treasurer, Jack/KB7ZS: Gave the financial report to the board. As usual, financial data for the last year will be available for members review at the next general meeting.

Activity Manager, Tom/N7VDU reported that the October program will be presented by Mary Lou Brown/NM7N, November will be a program on Cellular Phones, December will be a social get together, January will be the ICOM tour, February will be Flea Market planning, and March will be election of officers. Tom plans to have the drawing for the grand prizes for the raffle at December's meeting. Tom will also be starting a No Code Tech class next month, to be held in Maple Valley. Contact Tom for more information.

Radio Officer Ken/K7YR was not present.

Standing Committee Reports:

Public Service committee - Dan/N7QHC reported they had another meeting, and are trying to get more people involved. They are working on communications for the Salvation Army.

Education and Training committee - Lew/W7QMP reported that they had held another meeting. The education night at Amateur Radio Supply was a success. We had five speakers, and four people showed up. The questions asked were very good, and the presenters did an outstanding job. Lew gave special thanks to Mike/WA7UVJ, Casey/K6PKW, and Frank/KA7QHG.

Facilities and Publicity - AI/KB7THX reported that NC Machinery had accepted the donation of the club's diesel motor/generator and spare parts. It will be displayed in their corporate office lobby after they restore it. Michael/KG7MX has the paperwork detailing the transfer of this equipment from the club to NC Machinery. The club still has some DC to AC converters to dispose of. They are currently across the street from the Salvation Army headquarters. The feed store owner, Chuck Lande is willing to sell them as scrap metal if we wish to do that. Nils will contact Chuck to see what we should do.

Unfinished Old Business - There was none.

New business - Jack/KB7ZS will be going up to Fort Flagler to attend a meeting of the Friends of Fort Flagler group. He has already reserved the barracks for Field Day '95. Donald/KB7UYA, who is our Field Day chairman, will also attend the meeting at Fort Flagler.

Nils/WB7TJK reported that he is trying to track down the books that the club has donated to various libraries during the last four or five years. He will report back to the board with his findings.

Chuck/WA7EBH asked that the trustees meet at 18:30 prior to the October board meeting to work on a new budget. The budget needs to be formulated by the November Board meeting, so it can be published in the RELAY, and voted on at the December club meeting. Chuck asked Jack to mail the trustees a copy of this year's financial transactions and last year's budget. The audit committee needs to be formed, so that the audit report can be ready when required.

Good of the Order: Nils reported that the club has sent out 166 flyers to new licensees. The meeting was adjourned at 20:13

Activities

Submitted by Tom, N7VDU

The following events are planned for the Club, its members, and their guests:



- October 15 Club Program - Mary Lou Brown, NM7N ARRL Vice Director, NW Division Slide Show of DXpedition to Eastern Canada
- November 19 Club Program - Jerold A. Aceto, K6LIE, from US West, Cellular Telephones
- December 17 Club Program - M&K 'GabFest' - no formal presentation. A chance for members and guests to just visit. Please bring can food or toys for the Salvation Army.
- January 21 ICOM tour, 1:00 p.m. Bellevue
- February 18 Flea Market Preparations
- March 18 Officer Elections

VHF Happenings

Submitted by Jim, K7ND

The summer activities came to an end after the Sept VHF QSO test last month. After 3 contests, 3 "E" openings on 2M, a few days listening for the Hawaii beacon during the greatest mainland/Hawaii tropo ducting event ever, and a productive Persied meteor shower; area VHF activity has come to a screeching halt. Even the usual Sunday morning koffee klatch attendance is down to just a few diehards. Time to start thinking about winter projects.

The Sept VHF contest saw an increase in 903MHz activity. It was shakedown time for new gear. Three new stations were on and I managed to work two of them. NU7Z ran homebrew gear from a mountain top and was easy to work. WI7Z had a Downeast Microwave transverter but due to his antenna location, it took two tries to work him from the Aberdeen area. I was unable to hear two stations on the east side nor KE7CX

south of Portland. In the search for more multipliers, 903 has been the next band to put on the air. SSB Electronics also makes a 10W transverter. Both units run 10watts, have Gasfet front ends and use 2m as an IF.

I'm a great fan of K1FO antennas and have several on different bands. This is because they work well and am able to build them myself which is both fun and saves me a lot of money (get more antennas that way). The last few editions of the ARRL Handbook and the new ARRL Antenna book describe the antennas and how to scale materials for different frequencies and material sizes. I have come into possession of a computer program that takes all the work out of this process. If you are interested in a copy give me a call and I will be most willing to share. The most difficult hardware to find is the element material and the insulators and keepers. All of this is available from Texas Towers at a (even to me) reasonable cost. They even have boom material if you want new stuff. I built two 223FM ants that retail at around \$100 each for a total of \$25.

Next meteor shower is Oct 21st. This is the Orionid shower and is predicted to peak at 0630Z on the 22nd. That makes it Friday evening on the 21st. Its a minor shower but you never know what will happen. Other than that it will be fairly quiet on the VHF bands. CU there, K7ND.

Book Review - Empire of the Air

Submitted by Tom, N7VDU

Quick, who invented the telephone? Why, Daniel Draubaugh, of course. Everyone knows that!

What? You didn't know that Daniel Draubaugh, of Yellow Breeches Creek, Pennsylvania maintained he had made the invention first by using a battery, wires, and a teacup with a membrane? He produced more than 220 witnesses who claimed they had either seen or heard the speaking device prior to Valentine's Day 1876, the date Alexander Graham Bell had called to his assistant Watson over his telephone. In 1888, the Supreme Court decided the case in Bell's favor by a margin of one vote. But for the opinion of a single

Justice, school children across the land might learn today that Draubaugh was the inventor of the telephone.

This is but one of many fascinating glimpses into the early history of communications as detailed in the book "Empire of the Air" by Tom Lewis. The book was later made into a two hour video by Ken Burns (The Civil War, The Brooklyn Bridge, The Status of Liberty, and others). It is primarily the story of three men: Lee de Forest, Edwin Howard Armstrong, and David Sarnoff.

These three men are largely responsible for modern communications as we know it today. You will see how de Forest's constant tinkering and sometimes borrowing of ideas lead to the development of the triode or three element vacuum tube. You will recount how Armstrong invented regeneration, the superhetrodyne, and frequency modulation and spent a lifetime defending his discoveries against the false claims of others. You will watch Sarnoff rise from messenger boy for Guglielmo Marconi to head both RCA and NBC.

For those interested in the early history of radio or those who want to understand why modern communication are the way they are this is a book not to be missed.

FCC Update

Submitted by Jim, K7ND

The FCC has opened an toll free line to Gettysburg for license info. You will need a touch-tone phone to work your way around the menu. The number is 1 (800) 322-1117. Do not know the working time frame but local business hours would probably be the best choice.

Look MA, No Wires

Submitted by Tom, N7VDU

Originally found in: RF REPORT, from Gator Land issue 8-94, August 1, 1994. This story is from Pete Peterson, WY7Z.

Is it a commentary on the scientific knowledge of the average person--or perhaps the quality of our science education?

Being a frugal person (my kids use the word cheap), I save scraps of wire and solder them together to make antenna

wire. As a result, my antennas are made of different lengths of insulated wire of various colors and bare wire as well.

One day a neighbor was looking at my 160 meter antenna which he could see attached at one end of a supporting post and consisting of wires of many colors extending out about 50 feet. The next piece of wire was rather long and black and disappeared out of view behind a tree. Because of the light conditions the black wire was invisible; the antenna looked like it ended in midair.

The neighbor wanted to know how the antenna could be supported only at one end and extend out as it appeared to do. Adopting what I hoped was a serious technical demeanor, I explained that Hams used their transmitters to pump large numbers of electrons into wires, sort of like blowing up long, narrow balloons, making them very rigid and therefore able to be supported at only one end. He bought the story 100% and since then has commented several times upon the amazing technical abilities of hams.

Free is a Four Letter Word

Submitted by AI, KB7THX

You would think an adult could remember one of life's first lessons, "There is no such thing as a free lunch"; or as Dawn (Mrs. N7QHC) said, "White elephants can be expensive to feed". The Club was seduced by the magic word "free" and thinking "how could we get hurt?", took possession of our now infamous 45KW (turned out to be 15KW) engine and generator (a.k.a. boat anchor).

If you have been following the saga, you are aware that during the last exciting episode of "Clear and Present Danger, part 146.82", our heroes Allan, Mikey (KG7MX) and his Nilness, were off to the wizard at NC Machinery to finagle our way out of a \$1400+ repair bill for a generator that, if it was operational, and there was a buyer, might be worth \$1000.

As of this writing, your facilities Committee has made lemonade out of lemons by turning a bad situation into a classic win win. A win for the Mike & Key and a win for NC Machinery.

It turns out our 1940 WWII generator has more value as a museum piece than as a generator. We have "memorialized" (legalize from Michael Hansen) our generator by giving it and the related parts to NC Machinery in exchange for all monies owed.

The generator cost us nothing to get (other than a lot of member's time - especially by Nils) and it cost us nothing to get rid of it. The albatross is gone.

From the Writers Block

Submitted by Michael, WA7UVJ



(The following sour puss opinion is my own. If you got one... well I print almost anything - Ed.)

As the commercial world (Marine communications in particular) gets closer to total elimination of Morse Code requirements, there appears to be a number of people getting excited about doing the same thing to Amateur Radio. Petitions to the FCC towards these matters are increasing exponentially and one New Zealand group is trying to kill off the 30MHz requirement at the next International Conference.

Now, I supported (with reservations) the move to make frequencies above 30MHz code free which resulted in the No-Code License. The talk at the time was that most of the persons interested in that region had no need of code for their desired primary activity (repeaters) and those with wider interests would eventually sift down through the code barrier. For the most part, that has pretty much happened and has worked well. Yet, it hasn't been without problems.

The majority of new codeless Technicians are finding their way on to radio with little guidance. The plethora of books, tapes, and methods practically guarantee a licensee but impart little of the tradition, lore, and experience that the previous (albeit more difficult) methods imparted. As such, we sometimes end up with bad operating procedures and a lack respect for standards or customs. Mind

you, most newcomers are eventually guided into the "herd" and only a small minority remain a problem - which they would be whether a code requirement existed or not. It's my belief that the local nature of UHF/VHF operating is crucial to this final envelopment into the amateur mainstream.

HF is a different matter. First, the entire High Frequency allocations would fit inside most UHF/VHF band segments. While there may be plenty of room to meet the requirements of untold thousands on UHF/VHF, unbridled expansion of neophytes onto 10-160 meters would be disaster. It might be different if some of that tidal wave were shunted into narrow band methods (i.e. CW) but wall to wall signals are already the norm in the SSB segments. Secondly, the local peer pressure brought to bear on an ill behaved repeater user doesn't exist when your signal travels to the next state and beyond. Where would these folks learn correct operating procedures and etiquette?


Personally, it wouldn't hurt me if they did throw open HF to no code SSBers and left them to their own allocations as I rarely stray from the CW segments. Yet, I know that as soon as the clamoring hoard got loud enough, it would soon tire of soiling just its own nest and desire all that "unused" space that some feel the CW allocations represent.

What can I do? Not much really. I can write stuff like this but it's probably futile in the long run. I can quit radio and become a "newbie" on the InterNet but that sounds pretty boring (too much like packet). Probably, I'll just crank down the CW filter to 250HZ and continue ragchewing right over the SSBers. They'll hear me but I won't hear them or their nashing of teeth. If they get one of those new-fangled DSP filters, they might tune me out but they won't tune out their fellow frequency hungry phone hogs. In the end, they'll probably get tired (ala CB), go away, and the bands will eventually empty out to the dedicated few.

Hey! in the long term, it might be better..... but I'd rather not try. Let's keep codeless licenses above 30MHz - where it sorta works.

MIKE & KEY ARC CALENDAR

September 11 - October 15, 1994

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Sept 11	Sept 12	Sept 13 7:30pm WWDXC Meeting	Sept 14 7:30pm Club Net on 146.82 Repeater	Sept 15 7:00pm Public Service Net 7:30pm PARS Meeting	Sept 16	Sept 17 10:00am Club Meeting 1:00pm VE Exams
Sept 18	Sept 19	Sept 20	Sept 21 7:30pm Club Net on 146.82 Repeater	Sept 22 7:00pm Public Service Net	Sept 23 <i>Autumn begins</i>	Sept 24 <div style="border: 1px solid black; padding: 2px; text-align: center;">Salmon Run</div>
Sept 25 <div style="border: 1px solid black; padding: 2px; text-align: center;">Salmon Run</div>	Sept 26	Sept 27 7:30pm Board Meeting	Sept 28 7:30pm Club Net on 146.82 Repeater	Sept 29 7:00pm Public Service Net	Sept 30	Oct 1 9:00am Boeing ARC Meeting 1:00pm VE Exams - Kent (KF7VG)
Oct 2	Oct 3	Oct 4	Oct 5 7:30pm Club Net on 146.82 Repeater	Oct 6 7:00pm Public Service Net 7:30pm Flea Market Meeting	Oct 7	Oct 8 8:00am SeaTac Repeater Group 10:00am VE Exams - Riverside Inn 1:00pm NAPRA Meeting
Oct 9	Oct 10  Columbus Day (Observed)	Oct 11 7:30pm WWDXC Meeting	Oct 12 7:30pm Club Net on 146.82 Repeater	Oct 13 7:00pm Public Service Net	Oct 14	Oct 15 10:00am Club Meeting 1:00pm VE Exams