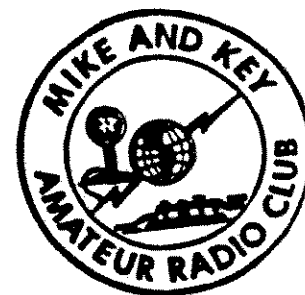


# K7LED RELAY



The K7LED RELAY is the official tabloid of the Mike and Key Amateur Radio Club. The mailing address is: P.O. Box 2121, Kirkland, WA. 98033. The Mike and Key Amateur Radio club is dedicated to the betterment of Amateur Radio. We meet the Third Saturday of every month at the Good Neighbors Center, 305 So 43rd, Renton - across from Valley Medical Center. The Club operates repeaters on 52.05-53.05, 146.22-146.82, 222.52-224.12 under the call of K7LED. The following nets meet on 146.82: Club Net Wednesdays at 7:30 PM, Public Service on Thursdays at 7:00 PM. Everyone is invited to participate.

VOLUME 19

FEBURARY 1991

NUMBER 2

## PRESIDENT

Mike Dinkleman WA7UVJ  
637 2nd Ave. SO.  
Kent, WA.98032  
854-4031

## TREASURER

Claire Laskey KB7GEW  
3616 SW Andover  
Seattle, WA. 98126  
935-5547

## TRUSTEE NO. 1

Mike Hansow KA7CSE  
1412 Lake Youngs Way SE  
Renton, WA. 98058  
255-7137

## TRUSTEE NO. 4

Brian Wood KF7QF  
8706 206th St. SW  
Snohomish, WA. 98290  
482-2361

## VICE PRESIDENT

Ralph Schumacher WX7T  
4032 East Mercer Way  
Mercer Island, WA. 98040  
232-8053

## ACTIVITIES

Julian Williams KA7MCB  
7839 So. 114th St.  
Seattle, WA. 98178  
772-5729

## TRUSTEE NO. 2

Frank Krieger KA7QHG  
3410 So. 166th St.  
Seattle, WA. 98188  
243-9232

## TRUSTEE NO. 5

Ted Boessenroth N0YC  
2009 Dayton Dr. SE.  
Renton, WA. 98055  
255-7721

## SECRETARY

Darlene Pauza KG7KC  
15325 6th SW  
Seattle, WA. 98166  
2078

## RADIO OFFICER

Ken Rau K7YR  
5430 Lake Alice Rd. SE.  
Fall City, WA. 98024  
222-7711

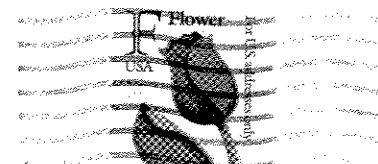
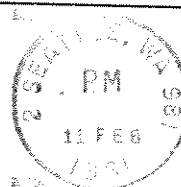
## TRUSTEE NO. 3

Mary Lewis W7QGP  
10352 Sandpoint Way NE  
Seattle, WA. 98125  
523-9117

## EDITOR

Joyce Stroehler N7JPW  
19415 SE 21st St.  
Issaquah, WA. 98027  
392-5303

JOYCE STROEHER  
19415 SE 21<sup>st</sup> ST.  
ISSAQUAH, WA. 98027



FIRST CLASS MAIL

## BOARD MEETING

On First Tuesday at 7:30 PM  
Onmi Restaurant on So. 188th ST.

## BREAKFAST

7:30 AM AT THE RIVERSIDE INN  
14060 Interurban So., Tukwila

## CLUB MEETING

Saturday Feburary 16 at 10:00 AM  
Good Neighbors Center  
305 So. 43rd, Renton  
Doors open at 9:30 for donuts  
TALK-IN ON 146.82 RPTR

## RELAY DEADLINE

BY THE BOARD MEETING!

K7WTG  
HEDBERG, PETE  
20904 NE 77th ST  
REDMOND, WA. 98053

91/01  
\*\*\*\*\*

FLEA MARKET MARCH 9 th.

CHECK MAILING LABEL FOR DUES EXPIRATION DATE!

## COMMITTEES

If you need information on any of the following topics, feel free to contact the persons under each heading. (you can match names to the calls with the roster)

Repeater  
KY7R, WA7EBH, KB7ZS

Banquet Chairman  
WA7UVJ

Public Service  
WA7EBH, K6DOW

Awards (last 3 Pop Brown)  
WA7UVJ, WB7TBR, N7JPW

Relay (newsletter)  
N7JPW

Field Day  
KB7ZS, KA7QHG

VE Exams  
WA7UVJ, K7ND, W7QGP

Election Nomination  
N0YC, (two more needed)

Ham Classes  
K7ND, WA7UVJ, WB7TBR

If you wanna volunteer to help, change the list,  
or have questions on some other subject, latch  
on to your closest club officer or trustee.

Interference  
KB7GEW

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## BANQUET

The Annual Mike & Key Awards Banquet will be held April 6th at Barnaby's Restaurant in Tukwila.

At this event, the Mike & Key Club honors all its members and recognizes those special few who went above and beyond the call of duty. (Some may get recognized for acts they would just as soon forget). In addition, we will be presenting the first members of this club to exceed 20 years of service!

Barnaby's has a choice of five entrees, a 26 item salad bar, and full no host cocktail bar, all for only \$15, including tax and tip.

Dinner choices are: Prime Rib, Top Sirloin, Stuffed Flounder, Marinated Chicken Breast, Baked Salmon or Halibut (restaurant's choice).

Don't miss out on this years awards banquet, get your reservation in today to WA7UVJ Mike Dinkleman, 637 2nd Ave So. , Kent WA. 98032.

Name #1: \_\_\_\_\_ Dinner Choice \_\_\_\_\_

Name #2: \_\_\_\_\_ Dinner Choice \_\_\_\_\_

Name #3: \_\_\_\_\_ Dinner Choice \_\_\_\_\_

Name #4: \_\_\_\_\_ Dinner Choice \_\_\_\_\_

\_\_\_\_\_ dinners X \$15 = \$ \_\_\_\_\_ (enclosed) Phone No. \_\_\_\_\_

## PRESIDENTS CORNER

March brings the annual Mike & Key Electronics Flea Market. Bigger than ever, we will fill two floors at the Pavilion with over 200 tables and attract close to 3000 sellers, buyers, and participants. To help make it successful, we need your participation! We need people from setup on Friday until teardown on Saturday afternoon.

The various tasks are numerous, including security, pallet drivers, and tickets. Hal Goodell, N7NW is coordinating the signup list so get your name on soon. One note, do not expect to just "show up" and get in for free. You **MUST** be registered and assigned a task to receive your entry badge.

The main focus of this months regular club meeting will be about the flea market, if you have any questions please come and join in on the fun. -uvj

## FLEA MARKET FLYERS

They are in the mail. All 7122 of them. Sunday, Jan 20th, a group of us got together to fold and label (press on labels) a few flyers. Many thanks to Carl and Millie Butler, Bill Balzarini and Don Lahr for their help. In addition to the individual mailings, envelopes containing 14 flyers were sent to 60 clubs in the three state area. Flyers have been in the local outlets since beginning Dec. If you are visiting a store and don't see any, please let me know and I will deliver more. Also, the people at Portland Radio let me mail them some for display. I need help in getting flyers to the Salem, OR. Hamfest. Anyone going please contact me and I will get you a supply to haul down there. TNX Jim K7ND

## T-SHIRTS & JACKETS

Many of you signed up for Mike & Key T-shirts a couple months ago. I have the 10 minimum orders (or at least signed up) but only four have paid.

If you signed up for a shirt, please bring \$10 to the next club meeting and confirm the size you desire. If it doesn't happen this month, I am returning the money already paid and forgetting the deal.

Now, I have 11 people signed up for jackets. The cost will be \$30 each. Like the shirts, please try to get me the money ASAP. If we can do it soon enough, **MAYBE** we can get them by Flea Market time. -uvj

## DATES TO REMEMBER

February 16th-Club Meeting

February 20th-Flea Market Meeting

March 1st thru 3rd-Winter Special Olympics in Wenatchee at Mission Ridge Ski Area.

## CODELESS TECHNICIAN LICENSE

Its finally here and takes effect on Feb. 14. There are actually very few changes, just an extremely significant one or two. It will now be possible to pass the technician class license exam without taking (passing) the 5 WPM code test. The written exam will include elements 2 and 3B. These are the novice and technician written elements. There will be no changes in the question pools for these exams, so all existing study material will still be usable. The restriction applying to this license is no operating privileges below 30 Mhz. This means no 10 meter operating privileges or access to the other HF sub-bands. All other technician privileges will be available. To gain prior technician access below 30 Mhz, all that will be required on the codeless licensee is to pass a 5 WPM test at VE examination session. All existing technician class licensees will see no change in their status. An important point to bring up is that there will be no change in the existing Novice class license or in the way that the Novice test is administered. We will be administering the new codeless tech license exam after the club meeting Feb. 16 at 1 PM along with all the rest of the examinations. I'll be glad to answer any questions. Jim K7ND

## NOVICE 80M CHANGES

The FCC has issued a change in the 80m sub-band for Novice class licensees. Its a 25 KHz slide down frequency to 3675-3725 Khz. This is to reduce the interference novices were experiencing from Canadian SSB stations. Only problem at this time is that no timetable was set for when the change was to take place. Stay tuned for bulletins from the ARRL. Jim K7ND

## ST. ELMO'S FIRE

St. Elmo's Fire is a type of corona discharge that generally occurs at near atmospheric pressures and field strengths slightly less than that required for complete breakdown. Under these conditions a particular form of corona discharge occurs. External manifestations of this effect are the emission of light and a hissing sound. This is called "Brush Discharge" and is characterized by strongly ionized streamers which take on a tree like form thus appearing as flames which do not burn.

These conditions can be observed on ships under situations approaching those of an electrical storm. The charge in the atmosphere induces a charge on the masts, yardarms and other elevated structures. The result of this is a corona discharge which causes a spectacular glow around these points. This effect is accentuated by the contours of early sailing vessels, which usually had several masts and much rigging. The display thus created under darkened conditions is quite striking. The name St. Elmo is a shorter form of the name of Saint Erasmus, who was considered the patron saint of Mediterranean sailors.

Under certain conditions, the flames of St. Elmo's Fire are also seen on spires, flagpoles, towers, and sometimes on the fingertips of an outstretched hand. Pliny (the Elder) observed them on the spearheads in a Roman camp in A.D. 70 and later performed experiments on iron rods having pointed ends from which emanated a brush of light attended with a small hissing noise not to be heard without good attention. One author contends that Moses once saw an intriguing display of St. Elmo's Fire in 1500 B.C.

And the angel of the LORD appeared unto him in a flame of fire out of the midst of a bush; and he looked, and, behold, the bush burned with fire, and the bush was not consumed.

And Moses said, "I will now turn aside, and see this great sight, why the bush is not burnt. Exodus iii, 2-3

Columbus saw them on the masts of his ships in 1493 during his second voyage, and Darwin described them in his "Voyage of the Beagle" in 1832. An explanation of these facts was reached by a study of "brush discharges" of electricity in 1729 by Stephen Gray and others of the same period. Subsequently, St. Elmo flames have been reported by a number of airplane pilots.

In some cases corona discharge may be desirable and useful, whereas, in others, it is harmful and attempts are made to minimize its effect. The effect is used for voltage division and control in direct current nuclear particle accelerators. On the other hand, the corona discharge that surrounds a high potential power transmission line represents power loss and limits the maximum potential which can be used. Because power loss due to ohmic heating decreases as the potential difference is increased, it is desirable to use maximum possible voltage. Bill WA7VEH - submitted by W7JIE.

## ELECTIONS

The Mike & Key will be holding elections during the March meeting. Please bring your nominations to the February meeting. All officer and 3 trustee positions are available in the election process.

Needless, to say, this is the biggest effect you can have on how this club is run. Please see your nearest board member to place your nominations. -uvj

**FLEA MARKET ON MARCH 9th  
PLEASE SIGN-UP TO HELP!**

## DE ARRL LETTER

January 18, 1991

**DEATH:** Georgiy Rumyantsev, UA1DZ, died in early December in Lennigrad, according to the Soviet newspaper *Sovetskiy Patriot* and other sources. He suffered an apparent heart attack at home shortly after participating in a rigorous radiosport activity. Rumyantsev was well known on the HF bands, and he had been an official competitor in the World Radiosport Team Championship in Seattle in July, 1990 (see QST, October, 1990, p 43). He was an organizer of the proposed World Radiosport Federation that is currently being formed.

**BRIEFS:** If you're renting or borrowing space on a commercial tower, be advised that FCC may be interested in you. According to the Dec. 17 issue *Broadcasting* magazine, a two-day inspection of such towers by the FCC in November found 16 per cent (160 out of 1,031) "in apparent violation of safety rules governing their painting and lighting." Each licensee using tower space is separately responsible for lighting and painting, said Richard Smith, chief of the FCC Field Operations Bureau. The Commission has begun tentatively levying fines (mostly \$2,000) against each user of towers it found in violation, according to *Broadcasting*.

Charles Hutchinson, K8CH, a HQ staffer since 1981 and most recently manager of the Technical Department, on Jan. 14 was named manager, Membership Services. He replaced John F. Lindholm, who has left the staff.

As mentioned in the Dec. 31 *Letter*, U.S. Amateur Radio operators no longer are automatically required to cease operations when the President declares war or a national emergency. This change in rules came about through the efforts of Dr. Dennis Bodson of the federal National Communications System (NCS).

On Jan. 11 the FCC's Private Radio Bureau hosted a presentation on the Radio Amateur Satellite Service given by AMSAT. Some 45 FCC staff members and interested amateurs attended the meeting in Washington, D.C. Led by AMSAT-NA president Doug Loughmiller, KO5I, and vice president for engineering Han King, W3GEY, AMSAT gave the FCC staff an overview of AMSAT's current projects and plans for the future, including a videotape and slide

presentation featuring amateurs in a variety of emergency preparedness and research roles.

## THE RUSSIANS ARE COMING

Last month I told you about the upcoming visit by 5 Soviets from the Zilan DX Club. This month, I hope to tell you a little about each of them so when you meet them (I hope you will take the opportunity!) they won't seem total strangers.

### Victor Pronin, - UA4HBW, N7PLU

Victor is the official team leader and was in charge of our accommodations in the USSR. He is from the city of Kuibyshev and teaches electronics as a professor there. Victor is 42 years old and enjoys RTTY and just about anything related to electronics. Soft spoken and quiet, he is my personal guest while in Seattle.

### Larry Saldin - RA4HA

Larry is a businessman, also from the city of Kuibyshev. He is well known in DX circles and ran a popular Soviet DX Net for over 10 years. He also handles the QSL duties for many Soviet DXpeditions and is planning a trip to Mongolia before coming here. Larry is 42 years old, and very outgoing. He probably speaks English better than anyone else in the group.

### Vlad Gurianov - UA4PX

Vlad works for the local telephone utility in Kazan and had the only private HOUSE we managed to visit while in the USSR. Vlad is age 53. Be aware that Vlad probably speaks the least amount of English in the group but don't let that deter you from meeting him.

### Edward Porfiriev - RA4PO

Edward is also from Kazan and is age 41. I did not get the chance to meet Edward (or I was totally bombed when doing so), so when he gets off the plane, it'll be new for me too. I understand he is a businessman.

### Victor Krasnov - UW4CF

The only visitor from the city of Saratov, Victor is a policeman and has to have the worlds biggest rhombic (it runs between four apartment buildings). Victor put his career on the line when our visit to Saratov went sour and was my host in that city. Fantastic guy but he is afraid to use his English unless pressed. He is age 42.

I hope to have any Open House type party for all amateurs to meet the Russians after their arrival. I hope you will make a mental note to be there. -uvj

## GENERAL MEMBERSHIP MEETING MINUTES JANUARY, 1991

Meeting was called to order at 10:00 A.M. by Mike, WA7UVJ, President, with 66 members in attendance with 8 visitors. Introductions followed.

A moment of silence followed for the situation in the Middle East.

Vice President, Ralph, WX7T: Presented 8 new applicants to membership - Jack Schaaf, N7OME; Billie Rae Schaaf, N7OKT; Mike Mills, KB7JNN; Mac Taylor, N7PWH; Lymon Fitzgerald, KA7OES; Jeremy Donimirski, WA7YGB; and Michael Hansen, N7PGZ. All were voted in unanimously.

Secretary, Darlene, KG7KC: Thank you notes received from King County Medic One and Tom Phelan's family. Will be published in the RELAY.

Treasurer, Claire, KB7GEW: Donated \$50.00 to Griffin Home from what Julian collected by passing the hat. 10,000 fliers being printed for the Flea Market. Bank balance \$1366.67 plus CD and interest.

Activities Manager, Julian, KA7MCB: Thanked membership for participation in raffles.

C.O.B., Mike, KA7CSE: Next month's meeting concerning Flea Market.

WA7YFH, Tom: Nets going well.

N7NW, Hal: Need help with Flea Market. Encouraged members to participate.

K7ND, Jim: Classes started last Thursday at Highline.

W7JWJ, Harry: Shared information concerning No Code. Also shared with us a referendum being proposed in house HR73 - Amateur Radio Spectrum Prod. Act of 1991 introduced to protect frequencies.

W7SRZ, Chuck: Shared with us about the premiere of "More Than Radios" was well received. Mike, WA7UVJ, represented club. Club does have a copy. This will be shown at next club meeting.

N0YC, Ted: WE are responsible as a ham to keep current with the part 97 guideline. Copies available for \$1.00. Antenna ordinance hearing rescheduled for February 13, 1991.

President, Mike, WA7UVJ: Banquet, April 6, 1991. Cost \$15.00 at Barnaby's, Southcenter. Flea Market meeting, Jan. 23 at 7:30 P.M. at QTH of Mike, KA7CSE. T-shirts and jackets - minimum order required, money needed up front, then order will be placed.

KB7ZS, Jack: Needed 10 meter Band Chairman for Field Day. Must be Novice or Technician.

A break was taken and meeting resumed at 10:45 A.M.

Our program was Jerry Wolfer, WA0RCX. He spoke to us on cellular telephones.

President, Mike, WA7UVJ: Upcoming - elections in March, taking nominations from floor next meeting, positions available: President, Vice President, Secretary, Treasurer, and 3 Trustee positions. Be thinking of who will best represent you in the year to come.

Raffle was then conducted and the winners are: \$25.00, W7GEY; \$15.00, N7NKQ; \$10.00, N7GCO.

Note: Past Trustees please check for your Green Book, some current Trustees do not have them. Thanks.

Meeting adjourned at 11:45 A.M.

Respectfully submitted,  
Darlene Pauza, KG7KC.

## BOARD MEETING MINUTES FEBRUARY, 1991

Meeting called to order by Mike, KA7CSE at 7:30 P.M. with 8 board members and 11 visitors present. Next board meeting March 5 at 7:30 P.M. at the Omni Restaurant.

Ralph, WX7T, Vice Pres: 4 new member applicants: Eugene Sodano, new Tech; Ned Akerman, N7PWR; Sandy Dunkle, K7OZY. All approved by the Board.

Frank, KA7QHG, Trustee: Jim, K7PHZ, looking for money for back-up antenna. Chuck, WA7EBH, checking into prices.

Mary, W7QGP, Trustee: Author of a book written by a teenage ham will be at the Flea Market. Antenna ordinance meeting scheduled for Feb. 13.

Claire, KA7GEW, Treasurer: Checking \$1806.02. Savings \$5,219.32. Will pull CD for Flea Market. \$1523.11 for printing and mailing of Flea Market flyers.

Brian, KF7QF: Unauthorized (no license) operators on repeater. Let Ken, K7YR or Jack, KB7ZS know about these infractions.

Darlene, KG7KC, Secretary: WA7YFH. Tom, would appreciate help on Nets.

Julian, KA7MCB, Act. Mgr.: Frank running the raffle at next meeting in Julian's absence.

Joyce, N7JPW, Editor: Needs articles for the RELAY. Anyone needing additional flyers, let Jim, K7ND know. Article in RELAY.

Chuck, WA7EBH: Comments concerning repeater. Looking into printer in Issaquah as back up for RELAY.

Jack, KB7ZS: WWARA meets Thurs night at Izzie' Pizza in Totem Lake.

Ray, WA7EKH: 77 tables and 9 commercial booths sold so far for the Flea Market. \$2200.00 brought in. Those working on Flea Market need to sign up ahead of time. Otherwise, members will be charged a regular admission of \$5.00.

Mike, WB7AYU: Repeater input. Agrees with antenna for back-up repeater.

BUDGET: See proposed budget printed in this RELAY. Claire, KB7GEW, moved that the board accept the budget as proposed with the addition of a line item of Raffle Seed Money, to be presented to the membership at the next meeting. Mary, W7QGP seconded. Motion carried.

Meeting was adjourned at 9:00 P.M.

Respectfully submitted,  
Darlene Pauza, KG7KC, Sec.

### TREASURER HUNT

WANTED: Capacitor  
1600 volts, .15 microfarads  
(Tubular cap, about 3-3 1/2" long)  
REWARD!!!  
Call KB7GEW, Claire at 935-5547

### WELCOME ABOARD

WA7YGB, Jeremy Donimirski, 15004 SE 183rd Court, Renton, 98058, 226-5139;

KA7OES, Lyman W. Fitzgerald, 15031-B Military Rd. S., Suite 224, Seattle, 98188, 439-9166;

N7PWH, Malcolm J. Taylor, P.O. Box 24928, Seattle 98124, 682-9672;

KB7JNN, Michael Mills, 31108 - 3rd Ave., #377, Black Diamond, 98010, 886-1811;

N7OME, John Schaaf, 7828 - 57th St. E., Puyallap, 98371, 841-2956;

N7OKT, Billie Rae Schaaf, Same as N7OME;

N7OXR, N. Michael Hansen, 4157 W. Mercer Way, Mercer Island 98040, 232-1069;

N7PGZ, Mike Hansen, Same as N7OXR.

Please add these new members to your existing roster.

## VISITORS JANUARY MEETING

KB7HLF, Arlene Bartrand;  
 KB7LZA, Dan Humphrey;  
 K7GCO, Ken Glanzer;  
 K7OZY, Sandy Dunkle;  
 KB7MIV, Paul Fullmer;  
 K7GSE, Frank Remington;  
 KB7KCU, L. Nowak;  
 Stan Yarema.  
 We hope to see all of you back at another  
 MIKE and KEY Meeting.

### TO THE MEMBERS OF MIKE & KEY

TO THE MEMBERS OF MIKE & KEY,  
 We just received a notification from  
 King County Emergency Services that Mike &  
 Key made a donation in Tom's memory. We  
 want to thank all the members for their  
 thoughtfulness. Perhaps those donations  
 can save someone else's life.

I also want to thank you for the copy of  
 the K7LED RELAY. We really appreciated  
 getting it and thank those who wrote the  
 Silent Key articles. Tom really enjoyed his  
 membership - and planned his life around the  
 club's activities.

The newsletter will go into the  
 scrapbook we are putting together of Tom's  
 life.

Thank-you all so very much.

Sincerely,  
 Evelyn O. Phelan

### MIKE & KEY ARC:

Dear Friends:

We gratefully acknowledge your  
 donation of \$25.00 in memory of Tom Phelan.

This donation will be used to benefit  
 the South King County Medic One Program  
 which operates the Medic 4, 5, 6, and 8  
 paramedic units. Donated funds will be spent  
 for purchase of capital equipment, such as  
 paramedic vehicles; for education and  
 training of paramedics; and for program  
 development and evaluation.

If you have any questions about our  
 intended use of your donation, please call me  
 at 296-4693.

With sincere thanks,  
 Steven Call, Manager

### FLEA MARKET HELPERS--NOTE:

In the past we have had problems with club  
 members and people showing up, saying  
 they were going to help, get their badges  
 and walked thru the flea market and kept  
 right on walking without helping. This  
 made it unfair to those who put forth the  
 effort and worked their buns off.

Well...this year it's going to be different  
 folks. If you would like to work and get in  
 free- sign-up ahead of time on the workers  
 sheet. See Hal, N7NW. Only those listed  
 will get the free badge. All others that  
 show up and say that they want to work  
 will pay the five dollars to get a badge /or  
 ticket- then if they really do work, the five  
 dollars will be refunded to them.

We hope that this will provide the  
 committee with dedicated workers who  
 can be assigned ahead of time and cut  
 down on the freeloaders. Remember we  
 aren't American Express and membership  
 doesn't have freebee privileges. Flea  
 Market Comm.









PEACH 1991 BUDGET ACCT #:	1987 :ACTUAL	1988 :ACTUAL	1989 :ACTUAL	1990 :BUDGET	1990 TO (*) :DATE (1/31)	1991 :BUDGET
FIELD DAY						
411 GAS	\$23.00	\$50.38	\$29.06	\$50.00	\$46.00	\$50.00
CAMPING (W.W. & Bks.)	\$86.00	\$374.25	\$190.25	\$200.00	\$100.00	\$150.00
412 TRAILER FEES	\$71.00	\$33.45	\$5.53	\$75.00	\$0.00	\$50.00
414 TOW VEHICLE	\$18.00	\$3.71	\$0.00	\$25.00	\$11.30	\$50.00
416 PARTY EXPENSE	\$0.00	\$70.00	\$95.00	\$100.00	\$100.00	\$100.00
415 SANI-CAN	\$70.00	\$108.00	\$162.00	\$200.00	\$165.00	\$175.00
OTHER EXPENSES (REPAIR):	\$145.00	\$43.80	\$614.87	\$150.00	\$614.29	\$500.00
418 PARK RESERVATION FEES	\$0.00		\$132.56	\$150.00	\$105.00	\$125.00
=====						
FIELD DAY TOTAL	\$413.00	\$683.59	\$1,229.27	\$950.00	\$1,141.59	\$1,200.00
*****						
PICNIC						
FOOD AND POP	\$48.00	\$42.94	\$80.00	\$100.00	\$116.50	\$150.00
OTHER EXPENSES	\$0.00	\$25.00	\$10.53	\$25.00	\$35.00	\$50.00
=====						
419 PICNIC TOTAL	\$48.00	\$67.94	\$90.53	\$125.00	\$151.50	\$200.00
*****						
CHRISTMAS PARTY						
421 HALL RENTAL	\$50.00	\$0.00	\$0.00	\$200.00	\$0.00	\$200.00
422 FOOD	\$61.00	\$100.00	\$50.00	\$75.00	\$0.00	\$75.00
423 PRIZES AND DECORATIONS	\$20.00	\$50.00	\$48.00	\$75.00	\$200.00	\$75.00
=====						
CHRISTMAS PARTY TOTAL	\$131.00	\$150.00	\$98.00	\$350.00	\$200.00	\$350.00
*****						
BANQUET						
GUEST DINNER	\$0.00	\$0.00	\$0.00		\$0.00	
431 AWARDS	\$160.00	\$176.09	\$400.00	\$200.00	\$200.00	\$200.00
432 PRIZES	\$400.00	\$400.00	\$110.21	\$400.00	\$400.00	\$400.00
433 ENTERTAINMENT	\$0.00	\$0.00	\$50.00	\$50.00	\$50.00	\$50.00
434 OTHER EXPENSES	\$90.00	\$80.00	\$30.00	\$50.00	\$50.00	\$50.00
=====						
BANQUET TOTAL	\$650.00	\$656.09	\$590.21	\$700.00	\$700.00	\$700.00
*****						
RELAY						
442 POSTAGE	\$370.00	\$498.00	\$508.00	\$600.00	\$650.00	\$1,000.00
441 PRINTING	\$320.00	\$456.90	\$558.71	\$600.00	\$680.00	\$1,000.00
444 SUPPLIES	\$10.00	\$17.29	\$85.23	\$125.00	\$40.00	\$100.00
=====						
RELAY TOTAL	\$700.00	\$972.19	\$1,151.94	\$1,325.00	\$1,370.00	\$2,100.00
*****						

EXPENSE ITEM	:1987	:1988	:1989	:1990	:1990 TO (*)	:1991
1990 BUDGET	:ACTUAL	:ACTUAL	:ACTUAL	:BUDGET	:DATE (1-31)	:BUDGET
<b>HALL RENTAL</b>						
GOODNEIGHBOR CENTER	\$200.00	\$200.00	\$50.00	\$50.00	\$100.00	\$200.00
TUKWILLA COMM. CTR.	\$0.00	\$94.00	\$528.00	\$600.00	\$300.00	
<b>450 HALL RENTAL TOTAL</b>	<b>\$200.00</b>	<b>\$294.00</b>	<b>\$578.00</b>	<b>\$650.00</b>	<b>\$400.00</b>	<b>\$200.00</b>
<b>*****</b>						
<b>452 FLEA MARKET</b>	<b>\$4,500.00</b>	<b>\$6,075.36</b>	<b>\$8,662.23</b>	<b>\$6,500.00</b>	<b>\$8,000.00</b>	<b>\$8,000.00</b>
<b>*****</b>						
<b>REPEATER</b>						
556 SITE RENTAL	\$360.00	\$360.00	\$360.00	\$360.00	\$360.00	\$360.00
553 PURCHASE BACKUP RPTR.	\$500.00	\$1,250.00	\$1,562.05	\$0.00	\$0.00	\$0.00
557 REPAIR	\$50.00	\$460.00	\$0.00	\$150.00	\$200.00	\$200.00
558 OTHER EXPENSES	\$0.00	\$54.85	\$0.00	\$150.00	\$50.00	\$50.00
<b>TOTAL REPEATER</b>	<b>\$910.00</b>	<b>\$2,124.85</b>	<b>\$1,922.05</b>	<b>\$660.00</b>	<b>\$610.00</b>	<b>\$610.00</b>
<b>*****</b>						
<b>MISCELLANEOUS ITEMS</b>						
561 OFFICERS EXPENSES	\$25.00	\$28.00	\$45.62	\$75.00	\$133.00	\$150.00
562 STATE FILING FEE	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00
563 BANK SERVICE CHARGES	\$15.00	\$0.00	\$27.24	\$30.00	\$0.00	\$20.00
564 TRAILER LICENSES (2)	\$40.00	\$37.40	\$40.00	\$80.00	\$80.00	\$90.00
565 INSURANCE	\$250.00	\$248.00	\$248.00	\$250.00	\$247.00	\$300.00
566 WWARA MEMBERSHIP	\$10.00	\$10.00	\$10.00	\$10.00	\$20.00	\$0.00
567 PRINTING (NON RELAY)	\$5.00	\$152.48	\$756.19	\$300.00	\$0.00	\$300.00
568 PUBLIC RELATIONS	\$0.00	\$50.00	\$143.90	\$700.00	\$722.84	\$1,000.00
569 GUEST SPEAKER	\$0.00	\$0.00	\$0.00	\$50.00	\$0.00	\$50.00
570 P.O BOX	\$50.00	\$28.00	\$28.00	\$30.00	\$30.00	\$30.00
571 UNANTICIPATED EXPENSES	\$100.00	\$95.71	\$124.00	\$600.00	\$560.00	\$500.00
572 NAME TAGS-BADGES	\$0.00	\$116.59	\$161.31	\$200.00	\$35.14	\$50.00
RAFFLE SEED MONEY						\$335.00
<b>TOTAL MISC.</b>	<b>\$500.00</b>	<b>\$771.18</b>	<b>\$1,589.26</b>	<b>\$2,330.00</b>	<b>\$1,832.98</b>	<b>\$2,830.00</b>
<b>*****</b>						
<b>EXPENSE SUMMARY</b>						
FIELD DAY TOTAL	\$413.00	\$683.59	\$1,229.27	\$950.00	\$1,141.59	\$1,200.00
PICNIC TOTAL	\$48.00	\$67.94	\$90.53	\$125.00	\$151.50	\$200.00
CHRISTMAS PARTY TOTAL	\$131.00	\$150.00	\$98.00	\$350.00	\$200.00	\$350.00
BANQUET TOTAL	\$650.00	\$656.09	\$590.21	\$700.00	\$700.00	\$700.00
RELAY TOTAL	\$700.00	\$972.19	\$1,151.94	\$1,325.00	\$1,370.00	\$2,100.00
HALL RENTAL TOTAL	\$200.00	\$294.00	\$578.00	\$650.00	\$400.00	\$200.00
FLEA MARKET	\$4,500.00	\$6,075.36	\$8,662.23	\$6,500.00	\$8,000.00	\$8,000.00
TRAINING	\$180.00	\$275.00	\$0.00	\$0.00	\$0.00	\$0.00
TOTAL REPEATER	\$910.00	\$2,124.85	\$1,922.05	\$660.00	\$610.00	\$610.00
TOTAL MISC.	\$500.00	\$771.18	\$1,589.26	\$2,330.00	\$1,832.98	\$2,830.00
<b>TOTAL EXPENSES</b>	<b>\$8,232.00</b>	<b>\$12,070.20</b>	<b>\$15,911.49</b>	<b>\$13,590.00</b>	<b>\$14,406.07</b>	<b>\$16,190.00</b>

# MIKE AND KEY AMATEUR RADIO CLUB

February 10 - March 23, 1991

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Feb 10	Feb 11	Feb 12  <i>Lincoln's Birthday</i>	Feb 13 <i>Ash Wednesday</i> 7:30pm MIKE AND KEY NET ON 146.82 RPTR.	Feb 14 ● NM  Valentine's Day 7:00pm PUBLIC SERVICE NET ON 146.82 RPTR.	Feb 15	Feb 16 7:30am Breakfast at Riverside 10:00am CLUB MEETING AT UGN IN RENTON 1:00pm VE EXAMS at Good Neighbors Center
Feb 17	Feb 18 <i>President's Day</i>	Feb 19	Feb 20 7:30pm MIKE AND KEY NET ON 146.82 RPTR. 7:30pm Flea Market Meeting	Feb 21 ● FQ 7:00pm PUBLIC SERVICE NET ON 146.82 RPTR. 7:30pm PARS MEETING Puget Power Bldg. Bellevue	Feb 22  <i>Washington's Birthday</i>	Feb 23
Feb 24 8:00am BREAKFAST AT RIVERSIDE 10:00am CLUB MEETING IN TUKWILA	Feb 25	Feb 26	Feb 27 7:30pm MIKE AND KEY NET ON 146.82 RPTR.	Feb 28 ○ FM 7:00pm PUBLIC SERVICE NET ON 146.82 RPTR.	Mar 1 WINTER SPECIAL OLYMPICS- MISSION RIDGE	Mar 2 8:00am CAMANO ISLAND HAM BREAKFAST
						<b>WINTER SPECIAL OLYMPICS-</b>
Mar 3 <b>WINTER SPECI...</b>	Mar 4	Mar 5 <b>**RELAY DEADLINE FOR NEXT ISSUE**</b> 7:30pm Board Meeting OMNI RESTRAUNT	Mar 6 7:30pm MIKE AND KEY NET ON 146.82 RPTR.	Mar 7 7:00pm PUBLIC SERVICE NET ON 146.82 RPTR. 7:30pm ISSAQUAH RADIO CLUB MEETING	Mar 8 ● LQ 3:30pm ELECTRONIC FLEA MARKET SETUP	Mar 9 9:00am 11th ANNUAL ELECTRONIC FLEA MARKET
						<b>ANNUAL ELECTRONIC FLEA MAR...</b>
Mar 10	Mar 11	Mar 12	Mar 13 7:30pm MIKE AND KEY NET ON 146.82 RPTR.	Mar 14 7:00pm PUBLIC SERVICE NET ON 146.82 RPTR.	Mar 15	Mar 16 ● NM 7:30am Breakfast at Riverside 10:00am CLUB MEETING AT UGN IN RENTON 1:00pm VE EXAMS at Good Neighbors Center
Mar 17 <i>St. Patrick's</i> 	Mar 18	Mar 19	Mar 20 <i>Spring begins</i> 7:30pm MIKE AND KEY NET ON 146.82 RPTR.	Mar 21 7:00pm PUBLIC SERVICE NET ON 146.82 RPTR. 7:30pm PARS MEETING Puget Power Bldg. Bellevue	Mar 22 ● FQ	Mar 23

Contact Relay Editor for additions

2/7/1991