

# K7LED RELAY

SEATTLE, WASHINGTON

VOLUME 9

DECEMBER 1980

NUMBER 8

AN ARRL AFFILIATED CLUB

## CLUB OFFICERS

President	Al Jensen	WA7TIB	542-6052
Vice President	Hal Goodell	N7NW	927-7603
Secretary	Deborah De Jong	N7AVO	883-3012
Treasurer	Mike Cross	WB7AYU	935-2688
Activity Mgr.	George Boross	N7BT	852-9412
President Emeritus	Steve Tillett	K7KOT	927-5456
Trustee No. 1	Jim Strang	W7GPW	392-5554
Trustee No. 2	Gene Jacobson	WA7TAI	822-3931
Trustee No. 3	Les Jacobs	WN7NXC	363-4169
Trustee No. 4	Don Rembaugh	WA7KBK	362-9189
Trustee No. 5	Dick Radford	WA7NIW	883-0662
Radio Officer	Ken Rau	K7YR	392-7954

## K7LED RELAY EDITOR

Vern Nelson, W7ZLW, 16812 N.E. 107th, Redmond, WA 98052 telephone: 885-0473

The K7LED RELAY is the official publication of the Mike and Key Amateur Radio Club, 23206 S. E. 53rd, Issaquah, WA. 98027. Articles may be quoted in full or in part without prior permission, providing the K7LED RELAY is credited. Deadline is the 1st of each month.

The Mike & Key net meets each Sunday morning at 10 a.m. on 3,930 Khz with Novice and CW check-in on 3,730 Khz and VHF on 146.58 Mhz and K7LED/R 52.37—53.37.

Club meets the third Saturday of each month at 10 a.m. at "The Good Neighbor Center" located at 305 S. 43rd St. in Renton, which is across the street from Valley General Hospital.

MEMBERSHIP: 84

## ACTIVITIES

December 6 Christmas Party

November 15 Board Meeting 7:30 a.m. — OMNI Restaurant  
Business Meeting 10:00 a.m.  
Program — Integrated Circuits by George, N7BT

## ACTIVITIES MANAGER'S REPORT

The Oscar program presented at the November meeting was well received by the large group that was present. There were many good questions and much discussion followed. We were fortunate in having Al Jensen, WA7TIB, present his experiences in building one of the transponders for an earlier Oscar. He also showed the Oscar calculator and how to use it to determine when it is possible to communicate via both Oscar 7 and 8. We give our thanks to Al for making his excellent presentation on the Oscar satellites and in sharing with us his personal experiences.

The matter of having a "bunny hunt" was proposed and was well received. Our president told us about some of his experiences with bunny hunts and this helped promote some very interesting discussion and ideas. To follow up on this, a committee has been formed to look into having a bunny hunt in the Spring. If you have any ideas, or would like to participate on the committee, please contact a committee member. The committee members are: Bob, WA7TRI; Ralph, WB7VLW; Gene, WA7TAI; Harry, W7JWJ; and George, N7BT.

For the next (December) meeting we will begin our first presentation of integrated circuits and computers. This program will introduce you to the basic ideas of the logic necessary to know how and why these modern devices operate. Circuits will be demonstrated to show and help you understand what its all about. This first presentation will be made by George, N7BT.

At the January meeting, Mike Jones, of the Almac/Stroum Electronics will present "Digital Integrated Circuits" such as the 7400 TTL and 4000 CMOS chips.

Then, we will conclude the series at the February meeting where several computers and other micro processors will be demonstrated and discussed. This presentation will be put on by several members of our club and if you would like to help us with any part of this, please contact George, N7BT.

It is anticipated that the February meeting will be more involved than normal so we are planning to start the business part of the meeting at 9:30 a.m. instead of the normal 10 a.m. beginning. Please keep this in mind.

At the last meeting, our President presented certificates to the recent new members and friendship awards to John, WA7HQQ and George, N7BT. If you have not as yet received a friendship award certificate you are missing a nice addition to your collection. All you need do to receive one is to contact 10 other club members on any band and submit their calls to our secretary on an ordinary sheet of paper.

George, N7BT

Murphy's Law #257

The more insignificant the discussion, the more the club members to become involved.

SHORT BURSTS.....SHORT BURSTS.....SHORT BURSTS

Lew, WA7ELI, been looking over your shoulder lately? Is that cloud still following you?

CONGRATULATIONS TO KEN, K7YR, AND HIS BETTER HALF, LINDA.....THEY ARE THE PROUD PARENTS OF A NEW BOUNCING BABY GIRL.....

Little John, WA7HQG, sounded like a broken record at the auction. All he could say....."MAKE YOU SUCH A DEAL".....

You know the saying "I DON'T DO WINDOWS, I DON'T DO FLOORS". Well, I don't know about windows, but give Jim, K7PHZ, a mop and watch him "swab the deck".

The way Jim (APJ) Smith was eating at the auction, I wonder if they'll have enough food on the airplane for his trip to Fuji. If they don't, Jim will have to get them to stop at the Golden Arches in the sky!

Question to Steve, K7KOT - If it works, why are you selling it?

Overheard from Patti Sutton - What will you have? Coffee, tea or me. Jimmy, WA7LNQ, does it work that way at home too?

My comment to Little John's harmonic, Steve - BREAK A LEG - Sure enjoyed sitting in for you. I'm better looking.....

REMEMBER - HEDBERG'S OPEN HOUSE DECEMBER 20th. BYOB AND HORS D'OEUVRE.....

Hey, Karl, N7AMX, does the M&K get the newspapers in your garage for their newspaper drive???????????????

CONGRATULATIONS to Dennis Eckert, KA7IVQ, who just upgraded to General only six weeks after receiving his Novice.

MARY ELECTED ARRL DIRECTOR

CONGRATULATIONS are in order to Mary Lewis, W7QGP, on her election as ARRL Northwestern Division Director. Mary had 2,976 votes (73%) compared to 969 for K7WWR and 718 for the incumbent, W7PGY. Mel, K7AOZ, was elected Vice Director.

Mary will take office on January 1, 1981, for a two-year term.

21 NEW NOVICES

The classes conducted by Mary and Harry Lewis at Bellevue and North Seattle Community College have produced 21 new hams! Mary said that only 5 dropped out in both classes which started with 44 students. The classes are continuing at both schools during the winter quarter.

M&K SANTA TALKS PROGRAM

The Santa talks, one of the most rewarding public service programs, will be run again this year. Tim, K7QMI, is chairman of this important project. Tim needs a lot of help as Santas and as Santa's helpers at local hospitals.

The Santas normally operate on 2-meters from their home QTH while the helpers are on HT's at the hospital to enable children who are hospitalized to talk to Santa at the "North Pole."

Tim said that the schedules have not been set with each hospital as yet.

Contact Tim to offer your help. He can be reached at 634-0628 or K7LED/R or 36/96.



HAPPY NEW YEAR!!!!!!  
HAPPY HOLIDAYS!!!!!!

.....THE FLIGHT BEFORE CHRISTMAS.....

TWELVE DAYS before Christmas she mentioned to her true-love that her favorite perfume was Nuit de Printemps.  
ELEVEN DAYS before Christmas she observed that a food processor would come in handy for making potato pancakes and homemade mayonnaise.  
TEN DAYS before Christmas she confided that she'd lost her one and only umbrella.  
NINE DAYS before Christmas she told him that Harry Winkler had asked what to give his wife for Christmas, and she'd advised him that any woman would be overjoyed to find a white cashmere sweater under the tree.  
EIGHT DAYS before Christmas she left by the telephone an ad for quilted bathrobes, marked with her size and color preference.  
SEVEN DAYS before Christmas she remarked upon the uncanny coincidence that her age and her blouse size were precisely the same.  
SIX DAYS before Christmas she moaned that she was down to her last pair of pantyhouse.  
FIVE DAYS before Christmas she told him that she'd have made coq au vin for dinner if only she'd had a French cookbook to tell her how.  
FOUR DAYS before Christmas she informed him that the Towne Shoppe had just received a new shipment of pretty silk evening bags.  
THREE DAYS before Christmas she mentioned that her wristwatch was losing five minutes a day and the repairman said it wasn't worth fixing.  
TWO DAYS before Christmas she lamented that she didn't have a really nice salad bowl like, for instance, the crystal ones that Fitzhugh's had advertised.  
ONE DAY before Christmas, her true love said to her, "Honey, I haven't any idea what to give you for Christmas. How's about my writing you a check and you buy yourself something you want?"

*Jan*

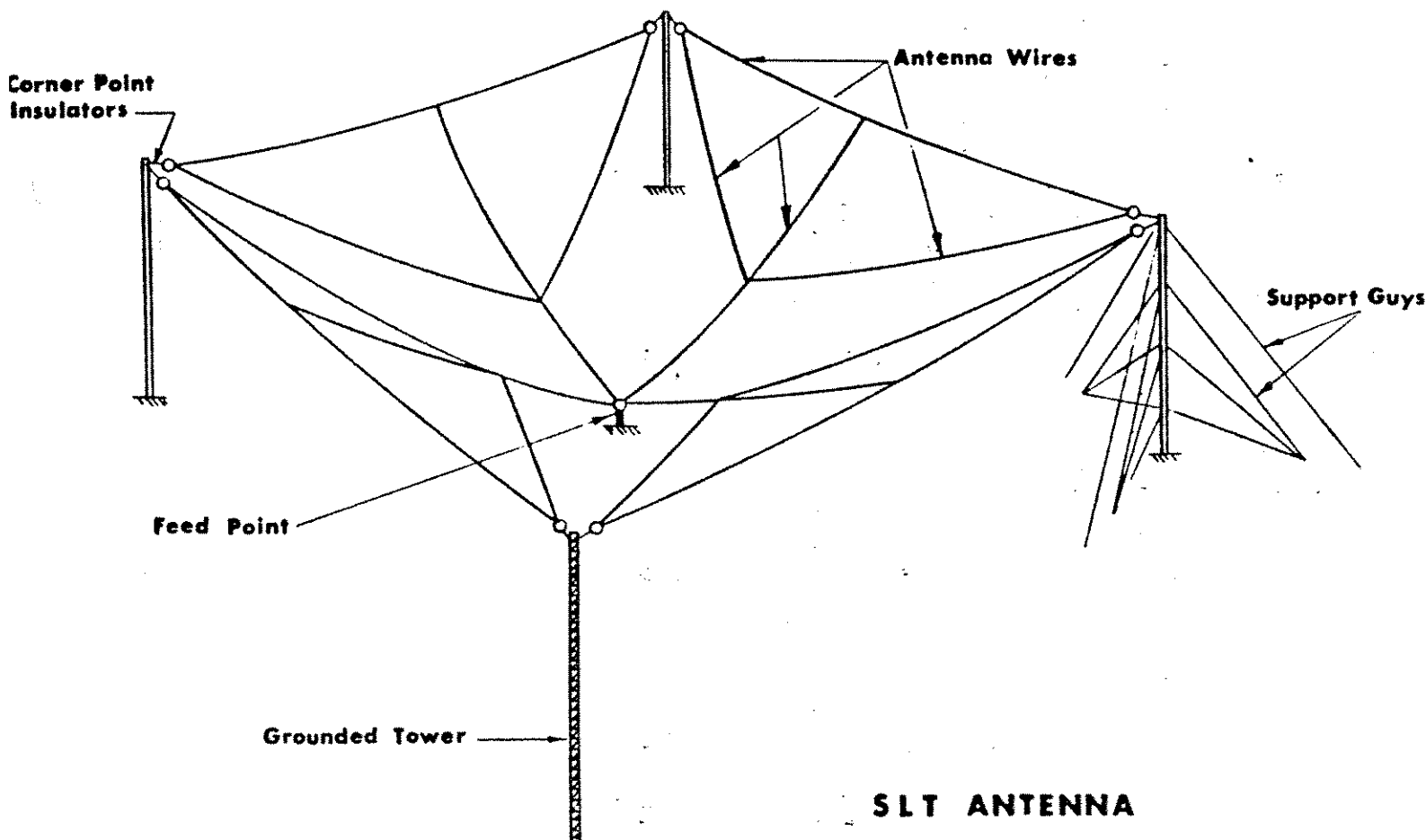
IT HAS BEEN SUGGESTED THAT THE MIKE & KEY START A NEWSPAPER DRIVE.....ALL MONIES TO GO TO WOMEN'S PRIZES AT THE BANQUET. SO SAVE THOSE PAPERS AND BRING THEM BUNDLED TO THE MEETINGS.....MAYBE WE SHOULD SET A GOAL..... HOW'S ABOUT A FUR COAT..... ?

But why place a marine navigation system on the Eastern Washington flats? Lindblad said a combination of consideration dictated the site location. "We needed real estate owned by the federal government to save taxpayer's money, and the Bureau of Reclamation has lots of land around here," he said. There also were too few sites away from airports, wetlands, and concentrations of people to place the site in Western Washington. "That's why we need so much power to get our ground wave over the mountains," Lindblad said.

The newest LORAN-C station was just turned on at Port Harding on the north end of Vancouver Island.

You can reach the George facility through exit 154, Adams Road, off I-90. Visitors are welcome, although Lindblad would appreciate a call at (509) 785-2752 if you make it a group outing.

If you visit, don't forget to ask them to show you the SWR meter!



## A HAM'S DELIGHT

By Dennis Eckert KA7IVQ

The cascading strobe lights catch any night traveler's attention on Interstate 90 near Moses Lake. Yet only a handful are probably aware they're passing by the most powerful Coast Guard transmitting station in the United States.

It's LORAN STATION GEORGE, pumping 1600 kilowatts of highly accurate pulses into the ether on 100 kilohertz. I drooled over the antenna system during a recent visit, agog at the prospects of twiddling my FT-101B to load into the mechanical monster. Worked all states in two hours! 5B DXCC in two days!

"The radiation resistance is pretty low so you have to pump a lot of current into it," offers Chief Warrant Officer Jim Lindblad, commander of the LORAN-C facility.

I wasn't too surprised when no one on the staff of 12 offered to help me tweak up on 3725 kHz. The facility has only one purpose: provide long-range radio-navigation for ships in the Pacific waters.

A LORAN-C receiver on a boat measures the slight difference in time that it takes for the signals to travel from a pair of transmitters. It's so accurate that a mariner can use it to return to within 50 feet of particular point.

LORAN-C transmitters operate in chains. The master station is in Nevada. The facility in the George area, 25 miles west of Moses Lake, is one of two slave stations.

The George staff is most cordial, but they really light up with enthusiasm when it's clear they're talking with someone who understands some radio.

I walked through one of the two transmitters. Never bumped my head because it was 10 feet tall. Also 30 feet long and 15 feet wide. A tank coil was one yard in diameter. The dummy load is 4' by 6'! I didn't have to worry about circulating currents while inside, because the transmitter was off. The staff cycles them every two weeks for maintenance. Finals and drivers cost \$1,300 apiece, but it's unlikely they'll let you take a used one with you because they're sent back to the factory for recycling.

Then there's the antenna system shown below. There are four 700-foot towers in a square, 1600 feet on a side. Hung between them is the wire array. "It's similar in characteristics to a top-loaded vertical," Lindblad told me. The signal is fed from a point on the ground in the center of the towers. It goes up four 2-inch cables.

"It's like an inverted umbrella," says one of the staff. "It works quite well because we can lower one or more sections for maintenance without losing our signal," Lindblad said. "And the towers aren't hot like our other stations."

Running this station takes a bit of power -- 700 kilowatts. "Seattle City Light would dim down if we were over there," Lindblad laughed. "It costs us about \$3000 to \$4000 a month, but it's still the cheapest power in the country. We get it from the Grant County PUD." The station boasts three 400-kilowatt generators just in case of power failure.

## HR REPORT HIGHLIGHTS

---

Number 329

November 21, 1980

PLAIN LANGUAGE AMATEUR RULES GOT the Commissioners' nod Tuesday morning, along with some nice comments about both the Amateur Service and the staff's work on the rewrite job. The proposed new Part 97 has four parts: Part A, The Amateur Radio Service; Part B, The Radio Amateur Civil Emergency Service; Part C, The Amateur Satellite Service; and Part D, Technical Standards common to all three services.

Three Important Changes are in the proposed new rules. One: All log keeping requirements are deleted. Two: The Communications Act Section 303 requirement that an Amateur make his station available to the Commission for inspection is incorporated in the new Part 97. Three: Every Amateur would be required to keep a copy of Part 97 in his station.

The Rules Rewrite Proposal includes both the present and the revised rules, plus explanations, so is thus a very lengthy document. That creates a major obstacle to adoption, since the Executive Director of the FCC pointed out at the meeting that publishing the Notice of Proposed Rule Making in the Federal Register would cost \$30,000 and in the FCC Report another \$7,000—money not in the Commission's budget.

Despite The Money Problem, all Commissioners present voted in favor of releasing an NPRM on the rules rewrite as soon as possible. Until the issue of the financial bind is resolved, however, it is not at all certain when that might be.

THE HF PHONE BAND EXPANSION proposed by ARRL's directors at their July meeting is getting lots of flak for its 40-meter provisions. Not only is the League receiving lots of criticism for suggesting U.S. phone encroachment on the narrow Region-1 phone segment, but many 40-meter users have also been making their objections known to the FCC—even though the proposal has not yet been submitted to the Commission as a Petition for Rule Making.

THE PHASE III-B SATELLITE is going to be mounted atop the Firewheel spacecraft when both are launched in early 1982, and W3GEY is leaving for Germany November 30 for a meeting at the Max Planck Institute where physical integration of the two birds will be discussed. All of the necessary components for Phase III-B are now being ordered, and construction work is accelerating.

SYNCART Plans Will Be the subject of a meeting in California this coming week, when VE2VQ of AMSAT Canada will be visiting with Project OSCAR officials (HRR 328).

Several Programs To Broaden its interest base and increase revenues are under study by AMSAT. A weekly or biweekly HR Report style newsletter devoted to Amateur space activities and related areas is under consideration, but the AMSAT board has agreed to continue publishing Orbit at least through the end of 1981 in hopes that it will eventually become self-supporting.

PROPAGATION NOVEMBER 25-DECEMBER 8. Solar activity has remained high, even though the radio flux decreased to a minimum of about 175 November 20. Expectations now are for a gradual increase through the forecast period. The geomagnetic field became mildly disturbed November 15-19, and is expected to become disturbed again about November 27 and December 8. Overall DX conditions have remained good despite the flux drop.

Several Half-Hour Signal Drop-Outs (SIDs) to 15 MHz have been reported on the daylight DX bands recently, following solar flares. Some periods of poor conditions on transpolar paths have also been reported.

Higher Frequency DX Paths are expected to improve throughout the forecast period, except over Thanksgiving when those bands will be relatively unproductive. Lower frequency DX buffs will likely find some special treats during that time, however. KØRYW.

THE YI DXPEDITION PLANNED by top Jordanian DXers is apparently still on, despite the Iraq/Iran war. An October letter to SMØAGD from YI1BGD operator Saad says official permission has been granted the YA group to operate from Baghdad as YI1JW in late January, when the Baghdad University has midyear break. Antennas will be installed and equipment imported before the visiting operators' arrival, to permit maximum operating time.

The Severe YI1BGD QSL Backlog is being worked on, the letter says, though cards have been delayed by YI1BGD's move to better, air-conditioned quarters. More than 700 cards, some of them from as far back as 1978, went out last month. Thanks ARRL DXCC desk.

MIKE AND KEY AMATEUR RADIO CLUB  
16812 N.E. 107th  
Redmond, WA 98052

ADDRESS CORRECTION REQUESTED

FIRST CLASS

Season's Greetings