



K7LED Relay

Volume 25, Number 1

Page 1 of 5

January, 1998

The Prez Sez Chuck Benefiel, N7STR

Well as fast as it gets here, it is gone. The holiday seasons fly past us at 90 mph, and all of a sudden we are faced with a new year and having to remember to write 98 on checks and letters, (it takes me a good 30 days to master that). It seems unfair that between Christmas and New Years that there is only 6 days. I think we need a 13th month, call it Postxmasnary, in which we get 30 days to practice the date for the new year, are exempt from all credit card debt, and in which nobody can have birthdays, taxes, or family functions. Every weekend the minimum temperature is 60 degrees, and there are no wind storms, ice storms, snow storms or floods. Everybody also gets a minimum of 3 pay periods, 5 if you are paid weekly and without explanation we all return to our weight that we were at 30 days before Thanksgiving. There I think that about covers all my fantasies. The problem is that it can never happen that way.

The fact is that as soon as the holidays are over, we are involved in project after project. We are only a few weeks from the Flea Market on March 7th. Elections on March 21st., the banquet in April, Field Day in June and before you know it PARADES are upon us. There is one statement over all, that sums it all up. "Life goes on." Thrown into the middle of all of this are birthdays, anniversaries, construction projects, work, club projects, storms, power failures, and those are just the things you can plan on. If you tried to handle it all at one time it would be overwhelming. The good news is that it happens over time, and being prepared is the key to learning to deal with it. Luckily our club has been planning for events in advance and even if something throws a wrench into our project, someone who has done it in the past steps forward to fill in the gap, or with the answer for the problem. That is why newcomers, middle membership, and old-timers are so important within any organization. We need the newcomers enthusiasm, the middle membership for consistency, and old-timers for experience. The main thing to remember is that we work as a team, and there is no one person that can do it alone. Please keep this in mind as the club projects come up. Remember to offer assistance to that chairman of a project whether you have past experience or not, but also remember to help them do it their way. If they ask for advice, and you have the experience, offer a solution. If they have a direction that may be different from the way you did it, help them to be a success, don't walk away and say it will never work. Neigh say'ers aren't team players, but neither are those that only do it on their own. So if you are a chairman, the key to any successful event or committee is getting as many participants and as much past experience as possible. The key to getting experience and participants is to ask for it. The key to success is to use the participants and experience to the fullest.

My New Years wish is that 1998 will be the most successful year for you personally and for the events of your Mike and Key Club.

Mailing Address
PO Box 2121
Kirkland, WA 98083
Internet Address
mikeandkey@aol.com

RELAY Editor
Jack Grimmert (N7IHS)
18128 SE May Valley Rd.
Renton, WA 98059

Telephone
(425) 271-7955

Fax
(425) 271-2075

e-mail
grimmert@halcyon.com

Board Meeting Minutes, 12/30/97

Officers present: President - Chuck (N7STR), Vice President - Sam (N7RHE), Treasurer - Chuck (WA7EBH), Secretary - Melissa (KB7TFF), Radio Officer - Harry (W7JWJ), Trustee #2 - Mary (W7QGP), Trustee #4 - Jeremy (W7YG), Trustee #5 - Adrian (KB7BVL).

Officer Reports

The Board minutes were approved as printed in the Relay.

President: Chuck (N7STR) reported that Ken Jackson, K7PZX has suffered a stroke. He is currently in the hospital in Arizona where he is spending the winter.

Frank (KA7QHG), will no longer open and close the Salvation Army building, nor serve as liaison nor pick up donuts. We are grateful to Frank for his many years of service and are looking for someone to take on these jobs.

The ARRL has a new coaches program for schools - 20 students per club.

Vice President: Sam (N7RHE) presented some applicants for membership. They were: We have 4 applications for membership: Thomas (NL7FQ), David (N3ZPN) Ethel (No Call), and Leland (W7PZO). All were approved for a membership vote at the General meeting.

Secretary: Nothing to report

Treasurer: Chuck (WA7EBH) announced that he has renewed the club's insurance policy in anticipation of the Fleamarket. He provided the Board with a budget reconciliation sheet. The audit can commence as soon as the December bank statement arrives.

Activities: Larry (AB7FJ) reported that \$86.00 was taken in at the last months raffle

Chairman of the Board report

Chairman of the Board: Jeremy, (W7YG) had nothing to report.

Radio Officer: Harry (W7JWJ) reported that the WWARA fees are paid. No has been progress on the backup repeater. The new 12 Volt battery is working

well in our 2 meter repeater. It holds the repeater controller memory intact during power outages.

Committee Report

Technical: This Saturday, Ray Leslie and Al Hopwood will install the shelves in our cabinet at the Salvation Army building.

Public Service: No December meeting was held. Committee will meet in January to further the club web page.

Education: Marry (W7QGP) announced that the ARRL raised almost \$10,000 for Archie comic books. You must use the new FCC form 610 from now on. They will no longer accept the old ones. The new ones include a statement on Maximum Permissible RF Exposure.

Strategic/Long Range Planning: Nothing to Report.

Facilities: Not working - on Sabbatical. Wants to put together a schedule of all club uses of the Salvation Army building.

Field Day: Jed and Brian are the chairpersons. They have met and are working on next year's event.

Flea Market: Next meeting - February 8, 1998 in the Salvation Army building.

Old Business

None.

New Business: The ARRL is requesting contributions again for future frequency protection needs.

Ray, WA7EKH is considering another purchase of ARRL handbooks at a discount price. He will also look into the CD version of the handbook as well. There need to be a minimum of 10 books to qualify for the discount.

We need a volunteer, acceptable to the Board, to hold the Salvation Army keys and buy donuts.

No other business. Meeting adjourned.

Flea Market Update

Michael Dinkelman, N7WA

As I write this, the Mike & Key's 17th Annual Flea Market is exactly two months away. As usual, the Chairs have been doing their part to get organized, get the word out, and fill in the holes. Still, there is a big hole that needs filling in by the members and that is the worker sign-up sheet.

At this time, about 60 people have signed up to fill the various positions needed to make this event run. That's way less than 30% of the membership. Seeing as how the entire membership benefits from the Flea market with ridiculously low membership dues, it isn't much to ask that each of you volunteer a couple hours at some position. (Many of you volunteer 2 solid days and you are the solid foundation of this Club!) Yet many seem quite content to associate themselves with this fine organization and it's well-run Hamfest without lifting a finger in the effort. Heck - some try to come down and get in for free. Well, now is your time make amends - volunteer for

the 1998 edition of the Mike & Key Electronics Show and Flea market.

Where are you needed? Well, the pallet crew sign-up has been pretty thin so far. It's interesting that we have 15 people (25% of the total) signed up to man the Country Store but fewer than that signed up to bring the stuff in. The interesting part of this is that the majority of the Country Store sign-ups are solid 'ol Timers (in age and Club years) who are at least getting out to support the Club in a manner in which they can while the Young Bucks (sexist term but I don't care) around here are.... well.... who knows what they are doing. Show them muscles off guys (and gals) and see Frank about pulling some pallet jacks.

Another area lacking in support remains Registration. In the past, this area has been filled (again) mostly by dedicated 'ol Timers and non-members. It must be the cold weather out there or the lack of 'facilities' but Registration is one of the most important areas in a smooth-running event. (If the exhibitors get bottle-necked out there - they are grumpy the rest of the day.) Registration doesn't need many but three or four people who can dedicate most of Friday (1:00 PM - 7:30 PM) or Saturday morning (5:00 AM - 9:00 AM) would be nice.

For those who sign up by the January Club meeting, badges will be available at the February Club meeting. This system has worked out amazingly well the past couple years and I don't think I have had to replace any lost badges. Keep it up. Sign up any later than this month and you will have to pick up your badges on site (if you can find me). *No* one gets in without a badge.

One last time - the Fleamarket is March 7th and setup is March 6th. See you then.

1998 ARRL HANDBOOKS

Ray E Leslie WA7EKH

There will be one more order for 1998 ARRL HANDBOOKS if the order is for 10 or more books. The price will be \$21.34 each. Also 1998 HANDBOOKS CD-ROM are available for \$37.46 each. I need to know at the January meeting. Money up front.

Morse Taps Out Its Final SOS

Peter Fairley

This article was submitted to the Relay by Gib Gibson, W7JIE.

FAREWELL Morse. At midnight on Wednesday, Morse code will cease to be the international language of distress. The code, invented 165 years ago by Samuel Morse, an American painter, led directly to the development of the telegraph and has helped save thousands of lives. The international emer-

agency code word SOS - dot, dot, dot, dash, dash, dash, dot, dot, dot - will become the stuff of history. It will be replaced by the Global Maritime Distress and Safety System (GMDSS) - an automatic position-signaling system routed through satellites with built-in two-way radio.

The loss of Morse is being mourned by radio operators across the world. It has been used by ships and travelers in distress and spelt out defiant radio messages from London to the French resistance during the second world war. However, the code, which has remained virtually unchanged since it was scribbled down by Morse after a chance remark at dinner, very nearly did not come into being. Its inventor was driven to penury attempting to refine the wireless telegraph and came close to giving up hope; only the support of his family allowed him to carry on long enough to perfect his system.

Morse was invented in 1832 following a conversation about electricity aboard the packet ship Sully, en route from Le Havre to New York. Morse dashed out of dinner to begin jotting down his code, and by the time the ship reached New York, his notebook contained most of the basic design for a device that would communicate and record information at a distance, of which the Morse key and buzzer became part.

The code was simple but it took Morse years of struggle to turn his "contrivance" into a working telegraph and convince the world it was worth investing in. At one point the destitute inventor wrote to a friend: "I am crushed for want of means. My stockings all need to see my mother and my hat is hoary with age." After 12 years, however, Morse tapped out the world's first telegram. It read simply: "What God hath wrought."

It took Marconi's invention of wireless telegraphy nearly two decades later to open up the world to Morse code and make possible its use by ships at sea. Since then, thousands of ships, including the Titanic, have sent out the SOS call, and hundreds of thousands of people owe their lives to it.

Help Wanted

Chuck Benefiel, N7STR

Needed: one dedicated individual, who has proven through their years of service to the club, the honesty and consistency, to open the Salvation Army at 9:00 AM for it's Saturday meeting, pick-up-donuts, and maintain the donut and coffee fund which is self supporting through contributions. The person needed also will purchase and setup cups, coffee, tea, cocoa, sugar and creamer. They will also supervise the setup and cleanup of the Salvation Army for our meeting on the 3rd Saturday of each month, and act as liaison with the Salvation Army for any meetings or special events.

"Who qualifies for this position", you ask? Well, for the last 7 years Frank Kreiger has been providing

this service for the Mike and Key Club. Effective at the end of the January 1998 meeting, Frank has indicated he will no longer be available to perform this service for the club. "If no one comes forward, what will happen", you ask? Well, sugar and caffeine withdrawal will be the first thing we notice at the February meeting. Anyone interested in performing these duties should see Chuck, (N7STR), Frank (KA7QHG), or any Board Member. This position needs to be filled by the end of the January 1998 meeting, and the person or persons who volunteer, will need to be approved by the board in a special session, prior to their taking on the duties. Here is a chance to serve your club. Term of duty is up to the individual, but we request a one year commitment.

From the W7JWJ Notebook Operation Upgrade

The Evolution of a Repeater - Part Five

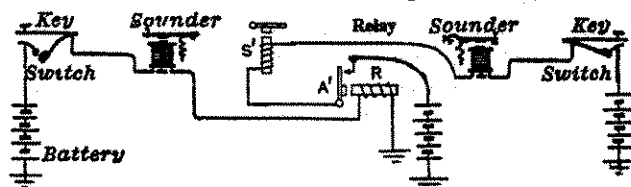
Promising the chairman of the House Ways and Means Committee one-third interest in his telegraph company, an appropriation for \$23,000 was pushed through Congress for Samuel Finley Breese Morse to construct a telegraph line from Baltimore to Washington DC. That line was completed in 1844 and was the first of many as the telegraph system followed the railroad westward. At each whistle stop, sensitive electro-magnetic relays were used to 'repeat' the signal via a local battery into a secondary circuit extending on to the next station. By this method the range of communication was indeed extended.

Less than a half-century later the world of wireless was at hand and it was only natural that existing telegraphic apparatus be employed to aid in this new and exciting mode of communication. Messages might be sent from point A to point B on the behalf of third parties. The receiving operator would then deliver the message or 'repeat' the message to the next radio operator. Thus was born the American Radio Relay League in 1914. Enterprising Amateur Radio operators devised methods of automatically repeating these Morse code messages. The audio output from ones radio was used to activate mechanical or electronic relays to 'regenerate' the signal and using this rectified signal to actuate a secondary circuit and transmitter via mechanical relay. With the advent of voice and other modes of electronic communications the fundamentals of signal regeneration had long been known and developed.

During the process of regeneration of a signal, two problems exist. The first is called hysteresis. Electro-mechanical or electronic circuits require a certain threshold voltage to activate them. The turn-off voltage is always less than this turn-on voltage. In the case of Morse code, or other digital signals, this tends to stretch the character being transmitted and we say that the weighting has changed. This limits the throughput.

The second problem when radio communication is

used to regenerate or 'repeat' a signal is that a powerful transmitter can overload and desensitize a nearby radio receiver. Separating the receiver and transmitter by a few miles and using an interconnecting telephone line is one way to solve this problem, but we shall soon see that there are more practical methods.



Repeating Telegraph System

Salem HamFair

The Salem HamFair is being held the 21st of February 1998 at the Polk County Fairgrounds in Rickreall Oregon. That is where Highway 22 and Highway 99W meet west of Salem Oregon, the address is 520 South Pacific Highway West. Doors open at 9:00 AM, grand prize drawing will be held at 3:00 PM. Admission fee is \$6.00 in advance or \$7.00 at the door. Self Contained RV's may park overnight for \$10.00.

Those wishing to pre-register may send their check to:

Salem Repeater Association
PO BOX 784
Salem, OR 97308

Please make your check payable to Salem Hamfair.

There are a large variety of Commercial Vendors scheduled to attend, Radio Depot, HRO, StarFire Tech, Battery Tech West to name a few. The swap tables have sold out at this time.

The web page for the Salem HamFair is located at:

<http://www.teleport.com/~n7ifj/sraflyer.htm>

Further information can be obtained from Evan Burroughs at:

n7ifj@teleport.com

Software Review - GCMWIN21

Michael Dinkelman, N7WA

Mapping software has immediate beneficial use for Ham Radio operators.

Free mapping software just makes it better. One of the better pieces of "Freeware" I have come across lately is GCMWIN21. Written by Roger Hedin, SM3GSJ in Sweden, this program will produce Great Circle maps centered on your QTH. Great Circle maps are useful for determining where to point your antennas when hunting that elusive DX. They also look cool. Yet, the program goes further than that.

You can enter a DX prefix (I've been hunting a 9N1 out of Nepal this week) and get the antenna bearing, distance, and grid square of the DX location.

The map has options for size, whether you want to show grids, lakes, and rivers, meridian lines, or even the USA State outlines. The grid squares options was great for the Stew Perry 160M contest as I am not so familiar with grids outside of the Pacific Northwest. You can reduce the detail of the map to increase it's speed but it isn't slow at full detail either. If you prefer hardcopy, the printing comes out great (depending upon your printers capabilities).

You can get a copy by pointing your browser to <ftp://n6nd.nosc.mil/hamradio/gcmwin21.zip>. I understand a version 2.2 exists and that it can be obtained at Roger's Web page (I haven't reviewed the new version yet) at:

<http://hem.passagen.se/sm3gsj/gcm.htm>.

If you don't have Web access, give me a call, I would be happy to pass on a copy. Good software and it's free!

Events Calendar

January

January 21st, Wednesday - Mike & Key Net, 7:30 PM on 146.82 repeater

January 22nd, Thursday - Public Service Net, 7:00 PM on 146.82 repeater

January 28th, Wednesday - Mike & Key Board Meeting, 7:30 PM Renton

January 28th, Wednesday - Mike & Key Net, 7:30 PM on 146.82 repeater

January 29th, Thursday - Public Service Net, 7:00 PM on 146.82 repeater

February

February 3rd, Tuesday - Education Committee Meeting, 7:30 PM Denny's Southcenter

February 4th, Wednesday - Mike & Key Net, 7:30 PM on 146.82 repeater

February 5th, Thursday - Public Service Net, 7:00 PM on 146.82 repeater

February 8th, Sunday - Flea Market Meeting at Renton Salvation Army

February 11th, Wednesday - Mike & Key Net, 7:30 PM on 146.82 repeater

February 12th, Thursday - Public Service Net, 7:00 PM on 146.82 repeater

February 18th, Wednesday - Mike & Key Net, 7:30 PM on 146.82 repeater

February 19th, Thursday - Public Service Net, 7:00 PM on 146.82 repeater

February 19th, Thursday - Long Range Planning Committee, 7:30 PM at Denny's Southcenter

February 19th, Thursday - Public Service Committee, 7:30 PM at Denny's Southcenter

February 21st, Saturday - Technical Committee, 9:15 AM at Renton Salvation Army

February 21st, Saturday - Facilities Committee, 9:15 AM at Renton Salvation Army

February 21st, Saturday - Mike and Key General Meeting, 10:00 AM at Renton Salvation Army

February 21st, Saturday - Salem Hamfair, 9:00 AM at the Polk County Fairgrounds in Rickreall OR

Buy, Sell, Trade, or Wanted



This column is available members and relatives or friends of member (no dealers please) who have electrical/electronic equipment (including computers and software) related to Amateur radio for sale or trade. Ads will be run for two months unless the editor is notified otherwise.

For Sale

- HENRY 2K3 Amplifier (Export Model) on floor pedestal, 3.5 to 30 meters (includes 10 meters), in excellent condition. Asking \$650.00 non-negotiable.

Contact: Bob Castaneda KC7QR at 425-334-9000 (Sno County).

For Sale

- MFJ-1796 Verticle Antenna 40-10 meters + 6 & 2 meters. Very good condition with the original manual - \$115.00 - pick up only in Bellevue, WA.

Contact Jed - W7JED (425) 641-5370 or e-mail jedson@foxinternet.net.

For Sale

- 1991 Dodge Caravan, wired for 5 antennas and 1 Cel Phone on roof.

Contact Dick, N7YOB at 253-631-6168 or e-mail n7yob@gte.net



K7LED RELAY

The RELAY is the official tabloid of the Mike and Key Amateur Radio Club. The Mike and Key ARC 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 SE corner of the Renton Airport. The Club operates repeaters on 146.82 MHz (103.5 CTCSS) and 224.12 MHz under the call sign K7LED. The following nets meet on the 146.82 repeater: the Club net on Wednesdays at 7:30 PM and the Public Service net on Thursdays at 7:00 PM. The Club's mailing address is PO Box 2121, Kirkland, WA 98083. All persons interested in Amateur Radio are invited to participate in the Mike and Key ARC and it's activities. Yearly dues are \$12.00 for individual memberships and \$18.00 for family memberships.

Volume 26, Number 1

January, 1998

President

Chuck Benefiel - N7STR
(253) 312-5341
cbenefiel@sprynet.com

Vice President

Sam Sullivan, N7RHE
(253) 631-0663
sam.sullivan@faa.dot.gov

Secretary

Melissa Donimirski - KB7TFF
(425) 226-2856
mellibot@aol.com

Treasurer

Charles Stroehrer - WA7EBH
(425) 392-5303
stroehc@wsdot.wa.gov

Activities

Larry Smith - AB7FJ
(253) 848-4998
ab7fj@juno.com

Radio Officer

Harry Lewis - W7JWJ
(206) 523-9117
w7jwjw7qgp@aol.com

Trustee No. 1

Al Hopwood - KB7THX
(425) 747-5192
kb7thx@aol.com

Trustee No. 2

Mary Lewis - W7QGP
(206) 523-9117
w7jwjw7qgp@aol.com

Trustee No. 3

Pete Hedberg, K7WTG
(425) 868-1563
petehedberg@compuserve.com

Trustee No. 4 (COB)

Jeremy Donimirski - W7YG
(425) 226-2856
jdonimi@uswnvg.com

Trustee No. 5

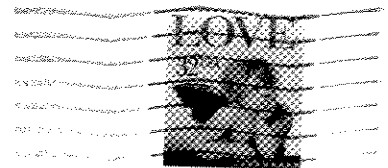
Adrian Roth, KB7BLV
(425) 312-5341
cbenefiel@sprynet.com

Relay Editor

Jack Grimmett - N7IHS
(425) 271-7955
grimmett@halcyon.com

Return To

Jack Grimmett
18128 SE May Valley Rd.
Renton, WA 98059



First Class Mail

Next Club Meeting

Saturday, January 17th at 10:00 AM
Salvation Army in Renton
720 Tobin, Renton
Doors open at 9:30 AM for donuts
Talk-in on 146.82 RPTR

Sam Sullivan N7RHE 7/98
13626 - SE 232nd
Kent, WA 98042

Next Board Meeting

January 28th at 7:30 PM
Salvation 5th Army in Renton
720 Tobin, Renton

January Program

To be announced



Check Mailing Label for Dues Status

Mike & Key ARC Web Page: <http://www.eskimo.com/~mwdink/mkarc.html>