

Alliance Amateur Radio Club Zero Beat Volume XV, no 4

Serving the Tri-County area since 1986

## Reflections of W6SAI by Jack Bennett, W8WEN

Bill Orr has been a long time personal friend of mine. In 1951 Martha and I lived on Oakhurst Drive in Beverly Hills, CA. About two blocks from W6WWQ (now W6RT) Bill Mauzey Jr. Bill Mauzey used to take me to the Southern California DX Club Meetings at Clifton's Cafeteria. One Saturday morning, he took me to see his good friend Bill Orr W6SAI. It is easy to remember as the septic tank truck was in Orr's driveway. After I left California and returned to Alliance. I had several telephone calls with W6SAI while he worked for Eitel McCullough, Inc. He sent me literature for building KW rigs using 4-125-A'S. I had a few of these 4-125A tubes. I started to build a KW rig using these tubes. In fact I had all the parts mounted and the necessary power supplies with their parts all mounted. W8ACP was also building a KW using these same tubes. He finished his, but when I saw what he went through to get it more or less TVI proof. I gave up the idea of building a KW and never finished wiring the KW and power

supply.. Later I got a 4-1000-P so I called up Bill Orr again and asked him about the pulse rating . He said: No problem it's the same for your use as the 4-1000-A .

I bought Bill Orr's Quad Antenna Handbook. His article in this antenna book about HCJB where they couldn't use yagi type antennas because of high static corona discharge. The quad solved their problems.. I have a friend whose son is now working at HCJB in Ecuador..

Bob Hobbs (W8ACP) and I found a place to buy bamboo fishing poles. We built spiders out of aluminum using the metal brake at the shop. I had mine laying in the back yard ready to put up. I forgot that with three young boys running around in the back yard, they might trip over the quad wires laying in the grass. So much for that project. Back to Bill Orr.

Bill did a lot of writing for CQ Magazine. He always seemed to throw tidbits in at the

# K8DX scores big

Congratulations are in order for club member Scott Detloff, K8DX, who scored big time in the 2000 ARRL International DX Phone Contest (March 4-5, 2000). Scott entered the single/ single operator category, using the 15 meter band. His score of 1,239,540 points was good enough for a new US record. It is interesting to note that Scott's score was the best single band score on any band, and his closest competitor (who would have set a new record) was over

## Meeting Announcement

Our next meeting will be Wednesday, April 4th, in the cafeteria of the Alliance Community Hospital. Talk-in on the K8LTG repeater on 145.37 MHz.

Visitors are always welcome.

Don't forget– Dues are due. Mary Ann requests that you send in a renewal form, with your payment. Renewal forms are available on the club website at http://www.gsl.net/w8lky/

newsltrs/application.pdf

## Officers

### President

Jerry Wheeler, KG8RN 18 Stanley Ct. Beloit, OH 44609 kg8rn@mail.cannet.com 330-525-7176

### **Vice-President**

Larry Ashburn, KE8VE 1080 W. Beech St. Alliance, OH 44601 ke8ve@raex.com 330-821-9808

#### Secretary

Dave Glass, W8UKQ 217 West Simpson St. Alliance, OH 44601 w8ukq@juno.com 330-823-4855

#### Treasurer

Mary Ann Royer, KB8IVS 6255 Sandalwood NE Canton, OH 44721 kb8ivs@aol.com 330-492-0703

### Trustees

James Lilley, N8XTJ 67 E. Columbia St. Alliance, OH 44601

Jim Ferguson, K8LTG 115 E. Cambridge St. Alliance, OH 44601 k8ltg@aol.com 330-823-3925

John Myers, KD8MQ 510 West Harrison Street Alliance, 0H 44601 kd8mq@qsl.net 330-821-5513

### Editor

John Myers, KD8MQ (see above)

## Editorial By John Myers, KD8MQ

Whew, that was a short month! It seems like I just finished the ZB, and now it's time to do it over again.

The clock keeps ticking away, and the Mall Show comes ever closer. For this years show, I'm working on a PowerPoint presentation showing our QSL cards. Once, finished, the presentation will be transferred onto videotape, for display at the mall. To make this work, I need a QSL card from as many of you as possible. Please, can you get me a card (or a scanned image of it)? I need these as soon as possible.

Thanks to those who forwarded stories, and web page links for this months issue

At last months meeting, we decided to look into purchasing an equipment trailer for the club. This would be large enough to carry any equipment, and supplies that we may need for field operation. It could also be large enough to set up a Field Day station in. We have looked at some trailers, and will have prices, and specifications available at the April meeting.

Speaking of Field Day, there have been a few rules changes for this years event (no joke). More on this in the coming months.

I got an e-mail tonight from Bob, W8ISU. He has tracked down several more Alliance QSL Cards for my collection. Look for these to be posted on the web very shortly.

Speaking of things historical, I'm just about ready to start writing a history of Amateur Radio in the Alliance area. My

# Meetings

The Alliance Amateur Radio Club meets on the First Wednesday of every month, in the cafeteria of the Alliance Community Hospital. Talk-in is on 145.37 ®. Meetings begin at 7:30 PM. Visitors are always welcome.

## Nets

Thursday is our "net night," with the following nets on tap:

### **Ten meters**

CW @ 8PM on 28.400 MHz SSB @ 8:30PM on 28.400 MHz

### 2 meters

9 PM on 145.37 MHz

## Internet

If you'd like to check us out on the web, our E-mail address is: W8lky@qsl.net Our club home page is: Http://www.qsl.net/w8lky

### **Newsletter Information**

The Zero Beat is a publication of the Alliance Amateur Radio Club, P.O. Box 3344, Alliance, OH 44601

Unless otherwise noted, permission is freely granted to reprint portions of the Zero Beat, as long as credit is given to the author & source.

You can submit material to the Zero Beat either electronically, to kd8mq@qsl.net . I can read most word processor formats, but prefer your files to be in straight text, or Microsoft Word format.

We also accept handwritten copy. My address is to the left.

### Zero Beat

# **March Minutes**

**March 7, 2001-** The regular meeting of the Alliance Amateur Radio Club was held at the Alliance Community Hospital on March 7, 2001, at 7:34 P. M., with Jerry Wheeler KG8RN, president, presiding. Secretary David Glass W8UKQ kept the minutes. There were 22 members present. The pledge of allegiance was given, and introductions were made.

The minutes of the last meeting were published in the newsletter. The report was approved upon motion by Frank WA8WHP, seconded by Sam KC8ETZ.

Mary Ann KB8IVS reported the treasury balances. The report was approved.

Larry KE8VE displayed and explained a magnet he found at a hamfest.

Business items: Don K8OMO reported that the renewal liability insurance policy arrived. Dave W8UKQ moved, seconded by Harry W8PXX, to pay the premium to renew the policy. Motion approved.

ARRL sent information regarding group insurance for club or personal equipment.

John KD8MQ reported a suggestion by Larry AA8NV that the club should consider acquiring a small trailer to hold and to store club equipment so that such is available as needed for special events or emergencies. Several items to be considered are: additional liability, additional insurance, a place to store it, and towing equipment. Don K8OMO moved, seconded by Harry W8PXX, to appoint a committee to form a plan to find what is available. Motion approved. The committee will be: John KD8MQ, Jerry K8CAT, Jim, K8LTG, Jim N8MAA, and Jerry KG8RN.

It was noted that if any personal equipment or time is required in an emergency situation, the individual's personal situation must be taken care of first, then attention to the club's or public's needs will be considered next.

Regarding RF filters to eliminate interference among equipment, George K3GP suggested that 5 or 6 may be needed at a cost of \$30 to \$40 each. Jim N8MAA moved, seconded by Don K8OMO to authorize George K3GP to check on RF filters and report to the club. Motion approved.

Jerry KG8RN reported that we will be welcome at the Mile Branch Fair. He will meet with officials in April and report at the next meeting.

The Columbiana County Skywarn class will be later this month.

Don K8OMO stated that he has sent net reports to Stark County, but has not had any reports back.

Bob K8RLS thanked the group for remembrances upon the death of his son.

John KD8MQ asked for comments regarding any problems receiving the newsletter electronically.

Jack W8WEN called attention to E-QSLs. However, as yet, they are not valid for awards.

The 50-50 drawing was won by Al KC8IXD.

The meeting adjourned at 8:30 P. M.

Respectfully submitted, Dave Glass W8UKQ, Secretary

April 2001

## Reflections of W6SAI (continued from page 1)

end of these articles. One of these articles had pictures of XU1B and VS6AE QSL cards. Wow! did he bring back boyhood memories. I have both of these QSL cards. When I was a kid mv friend Harry Gachesa designed a regenerative receiver for me to build. It started out with a 6C6 RF stage and a 6C6 regenerative detector, a 76 1st audio and a 42 second audio driving an old wooden horn speaker. The RF stage broke into oscillation and I couldn't tame it because shielding in the late 1930's was hard to come by. I couldn't find aluminum cake pans or any sheet copper. So I ran the receiver without an RF stage. One day on 20 meters I heard XU1B from Canton. China. I found out his name was Pat O'Brien and I got his address. I mailed him an SWL letter with the signal report, date, time and frequency where I heard him. I don't remember how long it took to get his reply, but I do remember meeting the mailman out in front of my house the day the card arrived. I quickly tore open the envelope with the China stamp on it. Boy! Was I excited!

After returning from Overseas in late 1945 I got back on the air with a home brew rig. On September 21, 1949 I worked VS6AE and when he said his name was Pat, I asked is your last name O'Brien and weren't you XU1B ? He said how did you know that? I said I was the kid that wrote you the SWL report before WWII. He said you mean you were the kid with the three tube regen receiver, I don't know how you ever heard me over there in Ohio. Thanks to Bill Orr I was able to relive this old experience.

In CQ magazine October 1996, the column Radio Fundamentals by Bill Orr, where he discussed how to make open wire line. At the end of the article he tossed in a tidbit about The Ghost Of Guam. In this article he told of how KB6GJX had never been captured by the Japanese forces when they invaded Guam. His article mentioned how to get a copy of a book about KB6GJX "THE GHOST OF GUAM". I have a copy of this book about this amateur and how he eluded the Japanese in WWII. Any way in Bill's article he mentioned KB6CBN Roy Henning. Yes, before WWII I sent Roy an SWL report. His Guam card had a photo pasted on the front. It was a picture of Roy in front of his grass shack. They think he was captured when the Japanese took Guam. I took photos of all these cards and envelopes and sent them to Bill Orr with the comments that he really couldn't realize the impact his articles in CQ had upon me. He acknowledged that I had written to him about his articles.

Bill Orr W6SAI may have passed on, but his tidbits, technical articles and his books will never be forgotten.

## K8DX (continued from page 1)

### 250,000 points behind.

The 2000 CQ WW WPX contest was the next record to be shattered by Detloff! Working again only on the 15 Meter band, Scott totaled a whopping 7,556,250 points; good enough for a fifth place finish worldwide, and a new US record. The second place finisher, K3CR, (KB3AFT), was close to 200,000 points behind!

What does it take to rack up a score like this? K8DX (using KX8R) made 2,921 contacts with 930 different prefix stations. More contacts in one weekend, than most of us make in one year!

Scott operates his "world class" station from his ridge top home near Paris, OH. A short drive east of Canton, on Georgetown road, will lead you to his antenna farm, which is visible for miles.

From the March, 2001 issue of the Feedline, the newsletter of the Canton (OH) ARC, Bill Hannon, N8PW, editor.

# Editorial (continued from page 2)

plan is to have it ready to include in the large Mall Show issue, at the end of May. If you have any old QSL cards from Alliance Hams, Please, can I copy them? I'll either scan & return them, or pay your copying costs. Just contact me first.

Well, that's it for this month. See you at the club meeting. 73 DE KD8MQ

# LF-TO-LF TRANSATLANTIC AMATEUR CONTACT IS HISTORY

Amateur Radio history was made this month when amateurs in Canada and the UK completed what appears to be the first two-way transatlantic Amateur Radio exchange on 136 kHz. Larry Kayser, VA3LK, and Lawrence "Laurie" Mayhead, G3AQC, managed the LF feat using extremely slow CW that featured 90-second-long dits and 180-second-long dahs. The twoway contact took two weeks to complete.

"We are the first to do a twoway QSO on LF across the North Atlantic as far as I am concerned," Kayser said. "We are the ones who put the stakes in the ground; others will build on what we have done."

The VA3LK-G3AQC contact began February 5 and was completed February 19 with the reception and confirmation of VA3LK's report by G3AQC. Kayser said the participants agreed in advance to a "firewall" between them for the duration of the contact and that all QSO information was exchanged over the LF radio link.

Mayhead said it was clear from the outset that, because of the relatively short band openings, he and Kayser would have to spread the contact out over several days. "It was not easy," he said. "I stayed up late most nights--3 AM on one occasion-changed blown fuses in my transmitter six times, and reconfigured my receiver to include a narrow filter because of interference that was desensitizing it." Kayser says he once had to climb the tower supporting his wire antenna in total darkness.

The UK has authorized amateur operation on 136 kHz, with special authorization and strict limits on radiated power. While Canada has not yet authorized general Amateur Radio operation on 136 kHz, Kayser and a few other Canadian amateurs have received special authorization to experiment there.

Reception of weak LF signals typically is done using spectro-

graphic software like ARGO or Spectran. Signals are transmitted using dual-frequency CW--or DFCW--or very slow-speed CW, also known as "QRSS." Using their particular brand of QRSS, Kayser calculated that it took nearly 70 minutes for him to send his call sign. "Certainly the information rate will improve," he said. "We did the best we could with what we had to work with over the last two weeks."

G3AQC and VA3LK were using a combination of commercial and surplus equipment at their respective stations. G3AQC estimated his effective radiated power at 350 mW, while VA3LK said he might have been at the 5 W ERP level.

In October 1998, the ARRL petitioned the FCC to create two amateur LF allocations at 135.7-137.8 kHz and 160-190 kHz. The FCC has not yet acted on the request.

(from the ARRL Letter, vol 20, no 8, Rick Lindquist, N1RL, editor.)

\* Our Monthly C&E Special from your friends at FUBAR ShaZamaHamaTronics of Spokogee \*

ShaZamaHamaTronics Begins The New Millennium By Promoting A Ham Tradition From The Last Millennium! **THE THUNDERBOLT 2000 BLUE LIGHT DX MACHINE !!!** 

THIS HAS TO BE THE MOST SIGNIFICANT PRODUCT WE'VE EVER OFFERED!

FAMOUS DX'ERS WORLDWIDE know there is no substitute for a DISTINCTIVE SIGNAL when trying to BREAK A PILEUP Both NEW AND VETERAN HAMS AGREE the COST OF AN EFFECTIVE HF AMPLIFIER has GROWN TOO HIGH!

That's why ShaZamaHamaTronics offers this AMAZING KIT: THE THUNDERBOLT 2000 BLUE LIGHT DX MACHINE A MODERN DESIGN relying on the TIME-TESTED technology of resonant spark at a price EVEN YOU CAN AFFORD !!! YES !!! YOU CAN ENJOY THE ADVANTAGES OF LEGAL-LIMIT CW ON ALL BANDS FOR LESS THAN \$200.00 !!! YES !!! You can build THE THUNDERBOLT 2000 from automotive ignition parts IN LESS THAN AN HOUR !!! (yes, the purchaser is responsible for meeting all FCC Part 97 Requirements regarding spectral purity of RF emissions)

As Cletus B. Liddley, A5LID of Bokchito, OK says: "Hot Damn, this is just like the Good Ol' Days we've read so much about! "

# CALL 1-900-I-AM-A-LID TO ORDER YOURS TODAY !!!

Be Sure to mention you saw it in the Collector & Emitter - Visit us on the Web at http://foia.fbi.gov/alpha.htm

## Hollingsworth says "Radio Rage" hazardous to Ham Radio

Entering his third year spearheading the FCC's Amateur Radio enforcement effort, Special Counsel for Amateur Radio Enforcement Riley Hollingsworth says "radio rage" could become a bigger danger to the future of Amateur Radio than rulebreaking.

"It's the infighting and arguments and juvenile spats," Hollingsworth said this week. "That's going to come back to haunt us if we don't just grow up. It will do the service in, if the ham community doesn't put a stop to it."

Hollingsworth said that he's encouraged that the FCC's enforcement program has the support of "99.9%" of the amateur community and that the vast majority of hams follow the rules. But, he said that radio rage in the form of such things as on-air squabbles or frequency fights can degrade the bands just as quickly as outright rulebreaking. "The FCC can't do anything about that," he said. "It's up to the amateur community."

Hollingsworth said that while much radio rage technically is not illegal, it reflects poorly on Amateur Radio and can balloon into an enforcement issue. More important, he said, rude or intemperate on-air behavior might provide just the sort of ammunition that an entity seeking additional spectrum will use against Amateur Radio.

Hollingsworth predicted that the departure January 19 of FCC Chairman William Kennard and the changing of the guard the White House the next day will not alter the course of the current amateur enforcement effort. He said he sees nothing but positive changes ahead.

"I'm willing to bet my SX-115 that we won't miss a beat," he said, referring to one of his latest acquisitions of vintage ham gear, "as long as the amateur community lets it be known it still wants

(Continued on page 8)

SCANNER

SIGNAL

SKYWARN

TOWER

VOLTAGE

YAESU

NLKCAHSOIDARZOPC Q AAVYAESUJNRAWYKS U PNYSAORVOLTAGEAN А SGOREDAERIONEIGO R н IEZKFNUQUIEL GR Т SNAODSUOTHOCCMT L E NKCLYGKCSACWEHIA R VLIAMEWAMEMALFLCW EAYICUCFAOGYLOL Α RSLXODENICADOTI V Ν SMKAA STOS YOTUEWUE IANOTNEIGHTL JFAMU OERCRMOSMWAZEOTMV TNUHXOFQTO NBUEON B TEWPSY PA SPTBYOQCH OONFEE INT CGYNN DP 0 TBCOQP GN LPUOCZXO SCANNE RRETTELSWEN

# ZC FUN TIME

Find the words listed below going horizontal, vertical, and diagonally.

ARES BEAM BROADCASTING COAXIAL COMMUNICATIONS COUPLING E MAIL FEEDPOINT FOXHUNT GEL CELL HAMFEST HOT FUDGE SUNDAY INVERSION KDKA MILLIWATT N EIGHT LJF NEWSLETTER NICAD QUARTERWAVE RADIO SHACK

From the March, 2001 issue of the ZARC Carrier, Newsletter of the Zanesville ARC, Dannie Grandstaff, KB8RIM., editor

# Let's read this again

## 5 years ago

from the April, 1996 issue of the Zero Beat, KD8MQ, editor

- Jerry, AA8GY (N8SH), describes some of his favorite Ham shacks.
- The Vanity callsigns program was delayed again, while we petitioned the FCC for several last minute changes.
- Jerry, KG8RN had passed his extra.
- Paul Harvey reported that a survival kit for the Alaskan wilderness was available. It consisted of a radio, a flare, and a deck of playing cards. If you got lost, and the radio and flares didn't work, you would sit down, and begin to play solitaire. The maker guaranteed that with in three minutes, someone would tap you on the shoulder, and tell you to "place the red eight on the black

nine."

• OSCAR 10 was just coming back to life, and RS-12 was going strong, using the newly activated mode KT.

## 10 years ago

from the March 1991 issue of the ZB, Dave Buckwalter, KC3CL editor.

- We were being encouraged to set aside as much time as possible for the upcoming Mall Show. Co-chairmen for that years event were Dave, KC3CL, and Jim, N8DZA.
- Anthony Lattavo, KB8EAU won the 45<sup>th</sup> annual final spelling bee, at Glenoak High school. Next stop was Washington DC.
  - There was a story on kite ATV, by Larry Hillier, N8EWV.

# How to learn morse

From the July, 1994 issue of World Radio, comes this excerpt from an editorial by Armond Noble, N6WR

"a few years ago, at the Pacific Convention, a young amateur told me a very interesting story. He wanted to become a ham, and spotted an antenna in his neighborhood. Visiting the amateur, he relayed his wishes, and was told to show up twice a week, after school, and he would be taught the code. He did exactly that. When he showed up for the FCC exam, the inspector turned on the tape machine. The young man sat with his pencil down on the paper. The inspector told him to get started. He replied that he would, when it got up to 13 words per minute. He was told that **was** 13 WPM, and he started writing.

His after school instructor, Katashi Nose, KH6IJ, had taught him the code right off the bat, at 20 WPM."

# Web Wanderings



## http://www.ipass.net/~whitetho/ part1.htm



## http://ariss.gsfc.nasa.gov/



## http://www.mindspring.com/ ~cacutts/radio/radio.html



http://www.myvintageradios. com/pics.html



http://www.google.com/

# Fix those remotes!

### Introducing the Special Infrared Clean Up kit

After a year or more of squirting IR at your TV set, VCR or CD player, your appliances will be coated with a thick, ugly and invisible coating of infrared radiation.

To clean up consumer infrared radiation, you can not use just ordinary cleaners, you need I\*R Cleanup.

I\*R Cleanup is safe to use on all electronics items - no foam, no water, no liquid, not even hot air - its totally invisible, has no mass, and leaves absolutely no residue because I\*R Cleanup is antiinfrared. You can't see IR and you can't see anti-IR either. Totally

safe to use on children, pets, carpet or the kitchen dishes. Comes in a special red glass bottle that is guaranteed to be red, not just infra-red.



### **Infrared Refill Kit**

Ever wondered how to rejuvenate old remote controls? Well, wonder no more. The solution is our easy and convenient I\*R Refill kit. Extend the life of your infrared remote control with the easy to use I\*R Refills package. Just add the 1 ounce (28 grams) package of infrared to your remote control and you'll be back in business in no time at all. And if

you wish, buy our I\*R Refills Bonus pack and extend the range of your IR remote so that you can control your TV or VCR from further than before! Price for either the "Clean-up Kit" or the "Refill Kit" \$29.95 Does not include Shipping.

? X

### **Radio Rage** continued from page 6

enforcement."

Hollingsworth said it was pressure from the ARRL and individual amateurs that prompted the resumption of amateur enforcement in 1998 during Kennard's tenure, "and it's the type of program that needs that continual pressure to keep it going," he added. Overall complaints are down, Hollingsworth said, "but no one can be complacent."

(from the ARRL Letter, vol 20, no. 3, Rick Lindquist, N1RL, *editor*)

ptions 💽 🔀
Track Changes User Information Compatibility File Locations
Ger Manufacturers' default settings (Not to be edited)   Endurance options   ✓ Crash every 2   ✓ Crash every 1   ✓ Create incredibly large files   ✓ Allow me to carry on typing during AutoRecovery saves   ✓ AutoRecovery saves take Bloody ages   ✓ Other options   ✓ Piss me off by applying the same stupid default attributes to every table, picture and object I insert   ✓ Annoy me with that sodding paper clip   ✓ constantly   ✓ when I least expect it
OK Close

# April 2001 Monthly Planner

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	<b>4</b> 7:30 PM Allian- ce Club Meeting	5 Tri-county News & information Net - see page two	6	7
8	9	10	11	12 Tri-county News & information Net - see page two	13	14
15	16	17	18	19 Tri-county News & information Net - see page two	20	21
22	23	24	25	26 Tri-county News & information Net - see page two	27	28 11:00 AM Mahoning Valley ARA exams Jim Viele 330-534-1394
29 20/9 Hamfest & VE Exams Dave Beatty 330-799- 5600	30	1	1	3 24	S   M   T   V     1   1   2     6   7   8   9     13   14   15   16     20   21   22   23     27   28   29   30	V   T   F   S     2   3   4   5     0   10   11   12     5   17   18   19     3   24   25   26

1002 lingA



Alliance Amateur Radio Club P.O. Box 3344 Alliance, OH 44601

# Excerpts from other clubs newsletters

From the March, 2001 issue of the feedline the newsletter of the Canton ARC Canton

The W8AL station, at the county EOC is being remodeled. New desks, equipment, accessories, and antenna repairs are planned.

Local Ham, Warren Boli, C6ADR, made headlines for his part in alerting hams throughout the southern hemisphere, leading to the capture of two thieves, and recovery of a plane, stolen from Long Island, in the Bahamas.

From the March, 2001 issue of the Feedback, the newsletter of the Massillon ARC, Gary Kline, WC8W, Editor

Canton/Massillon VE exam was

held on Saturday, February 24<sup>th</sup>. The session boasts a90% pass rate. Upcoming exams for the group, will be on May 26<sup>th</sup>, August 25<sup>th</sup>, and November 24<sup>th</sup>. The August 25<sup>th</sup> exam will be held at the Massillon Senior Center. The other two will be held at the EOC.

From the March, 2001 issue of the ZARC Carrier, Newsletter of the Zanesville ARC, Dannie Grandstaff, KB8RIM., editor

This issue includes the second in a series on Early Cincinnati Radio. I'd love to be able to reprint this one for you sometime. It's a must read for all you history buffs.

Also included, was an excellent article on IMRA (International Missions Radio Association) . The IMRA net runs 6 days a week, from 2-3 EST, on 14.280 MHz. IMRA exists in support of overseas missionaries. During the last 30 years, IMRA has loaned equipment valued in excess of \$50,000, to missionaries around the world. For more information, check in on the net, or contact Sr. Noreen Perelli PBVM, IMRA-KE2LT, 2755 Woodhull Ave., Bronx, NY 10469.

From the QRM, the newsletter of the Tusco ARC, David Lomady, WD8CKK, editor

The Tusco website, and E-mail are currently offline. More info, as it becomes available.