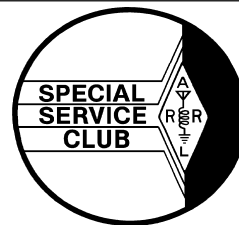


# FEEDBACK



JANUARY 2001

VOLUME 46 NUMBER 1



## JANUARY SPECIAL MEETING NOTICE

The meeting for the month of January will be held at the **ABBY ROAD RESTAURANT** at 1008 Ninth Street SW in Massillon, Ohio on January 13, 2001. The Wet bar will be open at 6:30 PM with dinner beginning around 7:00 PM. You will need a reservation to attend this event. By the time you read this, ALL members should have been contacted by one of the club's officers to confirm their reservations for this event. If you haven't been contacted, PLEASE contact the club secretary, Ann Ballinger, N8GAF at 330-832-8612. We need to know how many will be attending so that the restaurant will have enough meals ready.

This is the premier event for the club members for the entire year! We will again have a guest speaker this year at the banquet. His subject will be "A Look Back" at radio during the war - time period of the forties, by one who was there. As most of you know, amateur radio was forbidden during the war, so this should be very interesting. The guest speaker will not be revealed at this time, Perry W8AU, wishes to surprise everyone and present the guest speaker at the meeting. I am sure you will not want to miss this exciting event!

We will again be host to the Massillon Senior Center Director, Nancy Johnson and her husband at the banquet this year. So plan on attending this year's gala affair. It will be a great night out for you and your XYL, fantastic food, and a whole lot of fun for the entire family. What more could you ask for? SEE YA THERE!

## DUES ARE DUE !!!

The time has arrived to renew your 2001 dues to the Massillon Amateur Radio Club. Full membership for the club for one year is \$ 10.00. The dues for the XYL is just \$ 5.00. Student's or family members are a mere \$ 2.50. The dues for the year 2001, MUST be paid by the meeting night on March 2, 2001. Dues can be paid at the dinner meeting or by sending it directly to club secretary Ann Ballinger, N8GAF..... good in the call book!!

## - SHORT SKIP -

Looking deep into my crystal calibrator I foresee many exciting things in 2001....

1. The possibility of even MORE sunspots.
2. A rather large gathering of fellow hams in the Dayton area sometime in May.
3. MORE exciting rigs from Icom, Kenwood and Yaesu in the ongoing development of the perfect rig...
4. And, best of all, MORE radio fun in 2001 !

73 de WB80WM

# Happy New Year

## December 1,2000 MARC MINUTES

The December meeting was held at the Senior Center with 22 members and guest present. Perry W8AU called the meeting to order at 8:05 P.M. The Pledge of Allegiance was given and a round of introductions was made.

Charlie KB8STV made motion to suspend reading of the November minutes and was second by Don W8DEA. Anne N8GAF gave the financial report and made motion for it to accepted, Rich KA8ZQH did so.

Since it was the month of December the club election was held. Perry W8AU explained the bylaws, to be eligible for office you had to be at least 21 years old, a member of MARC for 3 years, and hold higher than a Tech. license.

Trustee Rich KA8ZQH conducted the election. There were 2 candidates running for Vice President and 4 for Trustee.

The new Vice President for 2001 will be Gene W8KXR. The Secretary and Treasurer will stay the same with Linda K8MOO and Anne N8GAF. The new Trustee will be Kip K8KIP. Congratulations to the new officers.

Don W8DEF gave his report. He highlighted on the ARRL letter and told of upcoming ham fests. The survey that was in the November Feedback was discussed. Please fill them out and return them. You can even bring them to the Banquet on Jan.13th. Also get your reservations into Anne N8GAF if you are planning to be there.

### OLD BUSINESS

We still need to put an antenna on the roof of the bank building to be able to use some of the equipment in the shack.

### NEW BUSINESS

Thank you goes to Gary WC8W for donating a 2000 C D call book to the shack.

Terry N8ATZ showed some film of the Christmas Parade. The ECOM trailer looked very nice, Jim WA8GXM drove the truck and Terry N8ATZ was the elf in the trailer.

Perry W8AU closed the meeting at 9:20 P.M.

Everyone had refreshments and the 50-50 for \$10.00 was won by Dennis N8UDL.

Minutes by Linda K8MOO Secretary MARC

HAPPY NEW YEAR FROM THE  
OFFICER'S OF M A R C



## MARC 2001 CLUB ELECTION RESULTS ARE IN !

In accordance with the Club Bylaws, election of officers was held at our December club meeting. Unlike the current contested National Presidential Elections, our elections were very capably handled by Senior Club Trustee Richard Ross - KZ8ZQH. As in the past, current Vice - President Don Finley, W8DEF will succeed Perry Ballinger, W8AU as 2001 MARC Club President. Although not a long time member, Don has distinguished himself by being awarded our coveted Ham of the Year honors in 1999. Truly an asset to our club, Don brings leadership and a solid background to the office of President. We are also happy to announce that the offices of Secretary and Treasurer remain in the capable hands of Linda Finley, K8MOO and Ann Ballinger, N8GAF.

In an exciting election runoff, Gene Beckwith, W8KXR has been elected to the office of Vice - President for the 2001 year. This is at least Gene's second time in the V-P chair, although only a few club members can remember his last time in office - it was back in 1973. A 28 year absence ! Welcome back Gene it was well worth the wait as Gene's leadership, experience and devotion to amateur radio will bring a new excitement to the club. Gene's long and fastening history in ham radio is worthy of a story itself and we hope to bring it to you in the future.

Also elected to office for the second time is Bob "Kip" Kiplinger, K8KIP. Kip served as club secretary during the 1999 term and did such a fine job we have rewarded him by elevation to club Trustee. Usually reserved to more senior veterans of the club, Kip make a fine addition to the executive board. Congratulations to both the newly elected and our second term officers !

## MARC DEMONSTRATES AT RADIO SHACK

With a early morning chill in the air, the Massillon Amateur Radio Club sponsored our last public service event of the year by holding a public radio demonstration and recruitment exercise in conjunction with the grand opening of the new Massillon Marketplace Radio Shack store on Saturday - November 18th immediately following our participation at the Massillon Christmas Parade. The focus of our demonstration was our EComm 1 Communications Trailer strategically placed along side the Radio Shack, complete with equipment and antennas.

Club Vice-President Don Finley - W8DEF has been working with Radio Shack Manager Jim Ailing all Summer coordinating this event. A natural association with Amateur Radio, the Club has been using Radio Shacks Amateur Radio training packages for many years as our primary training aid at our annual license classes. A demonstration such as this was a great way to kickoff our annual recruitment program. Throughout the afternoon we demonstrated the many popular modes of communication used today by radio operators as well as our new mode .. ATV ... A camera was setup in the trailer and was sent to a receiver setup in the store. This made for an impressive site as all twenty televisions were set to receive our ATV signal. This mode has turned out to be a great attention getter at recent public service events as well as our hamfest. Although attendance was a bit low due to the chilly day, we did attract a lot of attention from the many hobbyists who dropped by the store during the afternoon. Store manager Jim Ailing dropped

by the trailer and was given a demonstration of several modes of communications. Impressed by the days events, Jim has decided to host another radio demonstration next summer when we can setup an outdoor demonstration without wearing winter parka's !

A special thanks to club member Don - W8DEF who organized the event and Terry - N8ATZ, Perry - W8AU, Jim - WA8GXM, Don - W8DEA and Jason - KC8LIN for spending the afternoon promoting our great hobby to the public ! Thanks also to club members Sam - KB8FFC, Big John - K8LBZ and Ann - N8GAF who stopped by for a visit during the day. Check the club website for some pictures taken during our event.

## THE DIGITAL REVOLUTION

In my never ending quest to keep you advised of current events in digital operating I found a very informative website that's done the best job yet at a grass roots explanation of the various forms of digital communications active today on the HF bands.

It was created by Richard Griffin, NB6Z in 1996 and although its a bit technical, does a great job of explaining the most popular digital modes used today. Detailed discussions on the major modes used, a list of the most popular frequencies used for digital communications, a great section on how propagation effects the various modes, a through glossary on digital speak terms, a section on getting started plus lots of other information round out this detailed site.

One problem I have always had while running digital communications is telling one digital signal from another. No problem, this website has various sound files from the actual mode in operation. Just click the icon and hear what the mode sounds like.

If you're interested in this neat form of amateur communications, I highly recommend you check out this website. Its located at <http://www.teleport.com/~nb6z/frame.htm>

## THE NEW 2001 RADIO SHACK CATALOG IS OUT !

One of the things I look forward to each year at this time is the release of the new Radio Shack catalog and the 2001 edition is bigger and better than ever ! Weighing in this year at slightly over 2 pounds its 443 pages of every electronic gadget and gizmo the technophile could ever ask for. To me its THE Desk Reference for every ham operator. As always, I like to check out the ham section to see what's been added since last year. The big news is a new 2m / 70 cm Dual Band HT for only \$ 229.99. Not a bad price for a full featured dual band but its only rated 700mW output unless an external supply is used which bumps the power up to 1.6 watts. Also worthy of mention is a new lower price on their new mini sized 2 meter mobile. Rated at 25 watts out, its priced at only \$ 179.95. Add to this their usual lineup of accessories make for another great catalog.

(cont. next page)

Something new this year from Radio Shack is called "Cue:Cat". Designed to interact their catalog with their website, now you don't have to click through page after page on their website to find the item you want. The "Cue:Cat" is a handheld device like a bar code scanner that hooks up to your computer. It's easy to use, just scan the supplied bar code in the catalog next to the item you want to learn more about and you're taken to the corresponding website page in a jiffy. Even better, this "Cue:Cat" device is FREE for the pick up at any Radio Shack store. It comes complete with instructions for simple hookup. Looks like the best got even better.

### 442.85 MARC Repeater Back On-The-Air

Did you miss it ? Did you even know it was gone ? The 442.85 repeater, an ICOM RP - 4020 has been installed and operating from the Massillon Community Hospital since 1994 and maintained by the club experienced what we thought was a minor problem back in April of this year. Unable to correct the problem at the hospital, it was removed at that time. Over the next two months the repeater technical committee tried to locate and repair the problem. They were able to trace it to a heat related component failure. They also realized the output power was low creating a new problem. After consideration it was decided to return the unit to ICOM America for repair. After about four weeks the repeater was returned along with the bill. Back on the air it went at WA8GXM's for test. It worked for about one day !. The power was back up to snuff but the primary problem was still present. Armed with the ICOM Service Manual the technical committee went back to work on the problem. After lots of late night aggravation and some head scratching the problem was finally located. Because of the repeaters age, the parts could only come from ICOM. They were ordered and after another wait finally arrived. Installed and tuned, tested & tweaked we are glad to announce it is back up and running. It was returned to the hospital about two weeks ago and aside from one service call to check frequency and adjust the squelch, it has been working fine. During the severe storm season, the repeater is used to maintain local communications and was missed by the hospital this year !.

That's it for now, watch next month for a complete breakdown of our public service efforts during 2000 !.

Till then 73's

**Terry - N8ATZ**



## SOMETHING TO THINK ABOUT.....

Back a year or more in the series of article's titled, "Repeater Chronicles," Vol. #3 stated, "Repeaters came into existence for only one reason..... to increase the range of VHF/UHF mobiles and portables. Base stations were not normally included in this arrangement.....because of antenna heights and power that enabled them to be heard over nearly the same areas..."

In these times, it seems that repeaters have become the "watering holes" for everyone regardless of what they are using. Long ragchews between base stations seem to be the norm on a number of repeaters. Simplex frequencies seem to be forgotten by most operators. If you think about it, this tends to be a waste of spectrum space....using two frequencies to do what could be done on a single one...and at long time periods. Of course, this HAS to be done in the case of mobiles and portables....there is no other way around it of one wants to have reliable communications over long distances.

This is not meant to discourage base stations from using repeaters, but we should keep in mind some of the few times when the use of a repeater is not in the realm of good practice. This would be when each base station participant is capable of communicating with each other in a DIRECT 2-way contact, which then would take place on a simplex frequency. Lets look at some repeater use guidelines:

Portable to portable:	Yes
Portable to mobile:	Yes
Mobile to mobile:	Yes
Base to portable:	Yes
Base to mobile:	Yes
Base to base:	No (with exceptions)

Let's look at that last one. Base to base is OK, if one is trying to cover long distances that could not be achieved on simplex. This happens a lot, such as Massillon to Chardon. Very acceptable and valuable. Base to base is also OK when the repeater is used for calling purposes. Later on the participants can switch to simplex if extended communications are necessary. A form of base to base (but not really) occurs when we use our HT from home. Or perhaps an HT is the only rig we have at the time. In these cases, repeater operation is absolutely necessary.

So you see that repeater operation as we know it today will continue. Most conditions will require their use. We can, however, consider "repeater etiquette" and respect for others. When the time comes for those long rag chews that sometimes occur between base stations....we can switch to simplex. Come to think of it, it might even lower the power bill of the sponsor, and reduce maintenance costs in the long run.....

Something to think about.....

## ARRL PROPAGATION NEWS

ZCZC AP52  
 QST de W1AW  
 Propagation Forecast Bulletin 52 ARLP052  
 From Tad Cook, K7VVV  
 Seattle, WA December 29, 2000  
 To all radio amateurs

SB PROP ARL ARLP052  
 ARLP052 Propagation de K7VVV

Average solar flux was down by a tiny amount this week, declining by a little over three points. Average sunspot numbers were off by over 26 points since last week. This bulletin is written just a few days shy of the end of the year, and it looks like the average sunspot number for December will be about the same as for August. The three months in between have been about 30 points lower on average. Average solar flux will be just a few points lower than last month.

The week has been quiet, with very stable conditions on every day except December 23, when unsettled conditions yielded planetary K indices of four and five and a planetary A index of 20. Higher latitude conditions were not much worse, with Alaska's College A index at 22. Mid-latitude A and K indices were quite stable.

The current forecast calls for stable geomagnetic conditions until January 4-6, when they may become unsettled with planetary A indices of 12 to 15. The solar flux outlook for Friday through Tuesday is 185 for December 29-31, 175 for Monday and 170 for Tuesday. Solar flux is expected to bottom out near 140 around January 5, then reach the next peak around January 13-17.

KF6ROX wrote to ask about noisy HF band conditions he has observed when the K index indicates stable geomagnetic conditions. He wrote: "Today (about 0220 GMT on the 29th) the noise level on 20 meters is high, stations which usually show up about 20 over S9 are not heard well above the noise. The noise is at least two S units higher than normal." He wonders how this can be, since the planetary K index at that time was one?

I noticed that Herb is in San Diego, and the weather there is currently quite warm for December (more like summer in Seattle) and some areas have had gusty winds. In fact, a relative who lives about 140 miles northwest of Herb, also near the coast, wrote to me about blustery Santa Ana winds. Could warm weather and wind produce noisy conditions that make 20 meters sound like a K index of four or five?

Sun watchers and anyone with an interest in astronomy or space weather will want to check out the Windows to the Universe web site from the University of Michigan at [www.windows.ucar.edu](http://www.windows.ucar.edu).

This is the last bulletin of the millennium, the century and the decade (unless you observed the more dramatic rollover from 1999 to 2000 as the end or the beginning) but the data for the final few days of this year are not in yet. Happy new year to all, and in next week's bulletin we should have some averaged solar numbers

to look at.

Sunspot numbers for December 21 through 27 were 161, 164, 130, 155, 164, 189 and 171 with a mean of 162. 10.7 cm flux was 194.5, 190, 190.9, 193, 187, 188.8 and 187.6, with a mean of 190.3, and estimated planetary A indices were 5, 7, 20, 5, 6, 4 and 7 with a mean of 7.7.

NNNN  
 /EX

## ARRL DX NEWS

ZCZC AE53  
 QST de W1AW  
 DX Bulletin 53 ARLD053  
 From ARRL Headquarters  
 Newington CT December 28, 2000  
 To all radio amateurs

SB DX ARL ARLD053  
 ARLD053 DX news

This week's bulletin was made possible with information provided by Tedd, KB8NW, The OPDX Bulletin, The 599Rpt, The Daily DX, 425DXnews, DXNL and Contest Corral from QST. Thanks to all.

TUNISIA, 3V. Antonio, IK7YZG, will be QRV from 3V8BB from January 4 to 6. QSL this operation to home call.

UGANDA, 5X. Graham, 5X1GS, has been QRV on 28370 kHz between 1030 and 1300z. QSL via WB2YQH.

MALAWI, 7Q. Kaz, 7Q7KZ, has been active on 21290 and 28450 kHz after 1200z and again after 1800z. QSL via JA2LZF.

BHUTAN, A5. Glenn, W0GJ, and his son Mark, N0MJ, will once again be QRV using their own call signs, A52GJ and A52MJ, respectively. Activity begins December 29 and continues into the early part of February. QSL to home calls.

IRELAND, EI. The Emerald Isle Contest and DX Group will be QRV December 31 using the special millennium call EI2000. They will be active from the western part of Ireland using CW, SSB and PSK31. QSL via the bureau.

MINAMI TORISHIMA, JD1. Katsumi, JD1BCK, has been QRV on 15 meters SSB after 2330z. QSL via JM1TUK.

JORDAN, JY. Ali, JY4NE, has been active between 28400 and 28420 kHz around 1230 and 1530z. He then QSYs to 20 meters after 2300z. QSL via KB6NAN.

ANTARCTICA. Pavel, EM1KY, is now active as LU1Z/UT1KY from the Refugio Naval Groussac on Peterman Island, IOTA AN-006. QSL via operator instructions.

LEBANON, OD. Puzant, OD5NH, has been active on 80, 17, 12 and 10 meters using SSB between 1530 and 1730z. QSL to home call. OD5NJ has also been active on 10 meters between 1430 and 1530z.

SWEDEN, SM. The Kungälv Radio Club, SK6NL, will be active as SI900TKM from January 1, 2001 through December 31. QSL via home call.

ST. KITTS AND NEVIS, V4. Volkmar, DF2SS, is QRV as V47SS until January 6. Activity is on 160 to 10 meters, including 6 meters, using CW and SSB. QSL via DL2MDZ.

UK SOVEREIGN BASE AREAS ON CYPRUS, ZC4. Steve, ZC4BS, Des, ZC4DW, and Graham, ZC4GK, will soon be QRV from the ZC4 club station as ZC4ESB, on all bands and modes for the next three years. QSL via operator's instructions.

THIS WEEKEND ON THE RADIO. The RAC Winter Contest, Stew Perry Topband Distance Challenge, the ARRL Straight Key Night and The CCCC Millennium Contest help usher in the New Year. Please see December QST, page 97, and January 2001 QST, page 99, respectively, for details.

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## FCC Seeks to Require FCC Registration Number

ZCZC AG48  
QST de W1AW  
ARRL Bulletin 48 ARLB048  
From ARRL Headquarters  
Newington CT December 7, 2000  
To all radio amateurs

The FCC has proposed requiring everyone it does business with obtain and use an FCC Registration Number—or FRN. Many amateurs registered with the Universal Licensing System already have been assigned a 10-digit FRN by the Commission Registration System—or CORES. The FCC has not made its use mandatory, however.

The FCC says requiring individuals and entities to obtain an FRN will help it to better track and manage the collection of fees. The FCC proposes requiring that FRNs be provided with any filings that require payment of a fee, such as the vanity fee for amateurs. FCC Form 159 has been modified to accommodate this requirement, the FCC says.

The FCC is proposing to reject filings requiring an FRN that do not include the number. "These proposed rules would make the use of the FRN mandatory in certain circumstances so that anyone not yet assigned an FRN or who has not yet obtained one must obtain one," the FCC said in its Notice of Proposed Rulemaking (MD Docket 00-205), released December 1.

An individual does not have to hold an FCC license to obtain an FRN. The FCC says the information collected by CORES includes the "entity name and type," Taxpayer Identification Number or TIN—typically a Social Security Number for an individual, contact address and e-mail address. CORES information is not made public.

Comments on the FCC rulemaking notice are due 30 days from the date of publication in The Federal Register. Reply comments are due by 45 days from the date of publication.

The FCC began implementing CORES earlier this year. CORES registration eventually will replace Universal Licensing System, or ULS, registration. More information on CORES is available by visiting the FCC Web site, <http://www.fcc.gov> and clicking on the CORES registration link.

NNNN  
/EX

## HUMOR

### The Day After Christmas:

Twass the day after Christmas and all through the house,  
Every creature was hurting, even the mouse. The toys were all broken,  
their batteries dead; Santa passed out, with some ice on his head.  
Wrapping and ribbons just covered the floor, While upstairs,  
the family continued to snore.

And I in my T-shirt, new Reeboks and jeans,  
Went into the kitchen and started to clean. When out on the lawn,  
there arose such a clatter, I sprang from the sink to see what was the matter.  
Away to the window I flew like a flash, Tore open the curtains,  
and threw up the sash.

When what to my wondering eyes should appear,  
But a little white truck, with an oversized mirror. The driver was smiling,  
so lively and grand; The patch on his jacket said US POSTMAN.  
With a handful of bills, he grinned like a fox Then quickly he stuffed  
them in our mailbox.

Bill after bill, after bill, they still came. Whistling and shouting,  
he called them by name: Now Dillard's, now Bealls', now Penney's  
and K-Mart's, Here's Kohl's and Sear's, and Target's and Wal-Mart's,  
To the tip of your limit, every store, every mall, Now chargeaway-chargeaway-chargeaway all!

He whooped and he whistled as he finished his work. He filled up the box,  
and then turned with a jerk. He sprang to his truck and he drove down the road,  
Driving much, much faster with just half a load. Then, I heard him exclaim  
with a great holiday cheer,

ENJOY WHAT YOU'VE GOT!  
YOU'LL BE PAYING ALL YEAR!

## EXCERPTS FROM THE ARRL LETTER

### Personal Communications Pioneer Al Gross, W8PAL, SK Date: Thursday, December 28, 2000 1:39 PM

ZCZC AX14  
QST de W1AW  
Special Bulletin 14 ARLX014  
From ARRL Headquarters  
Newington CT December 28, 2000  
To all radio amateurs

The man who brought the world such indispensable wireless communications concepts and devices as the walkie-talkie, pager and cordless telephone has died. Al Gross, W8PAL, of Sun City, Arizona, passed away on December 21. He was 82.

Gross obtained his Amateur Radio license in 1934 at the age of 16. His early interest in Amateur Radio helped set his career choice while he was still a teenager.

Gross pioneered the development of devices that operated in the relatively unexplored VHF and UHF spectrum above 100 MHz. His first invention was a portable hand-held radio transmitter-receiver. Developed in 1938 while he was still in high school in Cleveland, he christened it the "walkie-talkie." The device caught the attention of the US Office of Strategic Services—the forerunner of the Central Intelligence Agency. The OSS recruited Gross, and this led to the invention of a two-way air-to-ground communications system used by the military behind enemy lines during the World War II. The system allowed OSS agents to communicate with high-flying aircraft.

After World War II, Gross set up Gross Electronics Inc to design and build various communications products, some of them under government contracts. He also launched Citizens Radio Corporation to design, develop and manufacture personal wireless transceivers.

Cartoonist Chester Gould asked if he could use Gross' concept of a miniaturized two-way radio in his Dick Tracy comic strip. The result was the Dick Tracy two-way wrist radio.

During the 1950s and 1960s, Gross secured several patents for various portable and cordless telephone devices. In September 1958 Gross Electronics received FCC type approval for mobile and hand-held transceivers for use on the new Class D 27-MHz Citizens Band.

"If you have a cordless telephone or a cellular telephone or a walkie talkie or beeper, you've got one of my patents," Gross once said. He added that if his patents on those technologies hadn't run out in 1971, he'd have been a millionaire several times over.

Over the years, Gross worked as a communications spe-

cialist for several large companies. Since 1990, he had worked as a senior engineer for Orbital Sciences Corporation and was still on the payroll there when he died.

Gross received numerous awards and honors during his distinguished career, including the 1992 Fred B. Link Award from the Radio Club of America, the 1997 Marconi Memorial Gold Medal of Achievement from the Veteran Wireless Operators Association, and the 1999 Edwin Howard Armstrong Achievement Award from the Institute of Electrical and Electronics Engineers. In 1998, he received Eta Kappa Nu's Vladimir Karapetoff Eminent Members' Award in recognition of his pioneering contributions to the engineering of personal wireless communications.

Earlier this year he won the Lemelson-MIT Lifetime Achievement Award for invention and innovation and for playing a major role in the wireless personal communications field.

As his IEEE biography put it: "It is clear that Mr. Gross was a true pioneer and helped lead the way to today's wireless personal communications revolution."

Al Gross is survived by his wife, Ethel. A burial mass was held December 27 in Sun City.—thanks to The W5YI Report and the IEEE for this information.

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Best wishes for 2001 from everyone at ARRL Headquarters!

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==>RESET RESTORES AO-40 TRANSMISSION

Merry Christmas, AMSAT—AO-40 is back! Following a 12-day silence, AO-40 once again is transmitting telemetry. In response to an L-band command sent Christmas Day by command station ZL1AOX, AO-40 resumed transmitting on 2.4 GHz. Software was reloaded to permit telemetry transmissions on 2401.305 MHz. Some problems remain on the satellite, however.

"Recovery of AO-40 continues, and some housekeeping tasks were performed by the command stations to improve and stabilize the situation," said Peter Guelzow, DB2OS, of the AO-40 team. Guelzow says new software routines were loaded successfully to restore the battery-charge regulator system and other housekeeping functions. "We will now start a detailed analysis of the situation," he said.

Telemetry transmissions from AO-40 ceased December 13 while ground controllers were testing the onboard 400-Newton propulsion system following an initial orbital shift. Some observers feared the satellite had been irreparably damaged. Guelzow says ground stations now have regained control of the satellite. Ground controllers hope the telemetry might yield some clues about what went wrong aboard the satellite to make it stop transmitting.

After onboard software watchdog routines failed to restart beacon transmissions automatically, a full reset command and an initialization block to switch on the S2 S-band transmitter were sent via L-band.

Guelzow said telemetry revealed that some temperature sensors have failed and some current sensors indicated incorrect values, but solar sensors

seemed to be working fine. The good news was that AO-40's power situation—in particular the battery voltages—looks nominal.

Guelzow said additional software would be loaded in the next few days and the various uplinks checked out before any attempts are made to turn the 2-meter transmitter back on. "Clearly, we need more time to analyze and understand what has happened here," Guelzow said. He said that while there are no indications that the 2-meter beacon transmitter has failed, ground controllers don't want to risk losing communication again. "So for the next days the spacecraft will continue to be transmitting on S-Band only," he said.

Phase 3D Project Leader Karl Meinzer, DJ4ZC said AO-40 command stations "will continue to follow a conservative philosophy" with a primary goal of not causing additional damage while retaining as much evidence as possible to analyze what made the beacon transmissions stop.

On December 22, AMSAT proposed holding an inquiry into the incident that led to the loss of communication with AO-40. A letter from AMSAT-NA President Robin Haighton, VE3FRH, said "AMSAT believes that it is in the best interests of our organization to determine all the facts surrounding this incident and to make sure that a similar situation cannot happen again either on AO-40 or on a future satellite."

#### ==>NEW FCC SYSTEM MEANS QUICK LICENSE GRANTS

The FCC's new system to handle batch-filed amateur applications from Volunteer Examiner Coordinators has cut processing time from hours to minutes. The FCC inaugurated the more rapid amateur license application processing system December 28—slightly ahead of its original schedule.

"Way to go, FCC!" said an enthusiastic ARRL-VEC Manager Bart Jahnke, W9JJ, after his office fed its first batch of license applications into the system. Jahnke says five dozen ARRL-VEC applications resulted in license grants about 52 minutes later. The W4VEC in North Carolina and Central America VEC also took advantage of the new system for the first time.

Except for a two-hour window right after midnight each day, the speedy new system looks for VEC submissions each hour on the half hour. With FCC license grant processing now measured in terms of hours instead of days, the major factor now determining the time from exam to license grant is how quickly VE teams get their test results to their VECs.

The FCC has been estimating a processing window of up to 90 minutes, depending on volume and arrival time. License grant results should be available immediately on the Universal Licensing System Web site, <http://www.fcc.gov/wtb/uls>, using the license search option.

Applications processed by the FCC one day will appear in the public update ("zip") files the following morning. Public call sign servers on the Internet should be able to update within 24 hours after FCC action—rather than the 48 hours that's been typical.

On-line filings from individuals, weekend filings and FCC-manually processed applications put into the hopper during weekdays at Gettysburg will continue to be handled as have been. These are batched for midnight processing, and weekend filings will not queue up until Monday midnight.

#### ==>COLORADO COMPANY TO ACQUIRE ALPHA/POWER

CrossLink Inc, a Boulder, Colorado, delivery tracking and telemetry company, is expected to acquire the assets of Amateur Radio amplifier manufacturer Alpha/Power Inc. An announcement from Alpha/Power Chairman and CEO Dick Ehrhorn, W0ID, said a buyout agreement would be completed by year's end.

In September Alpha/Power, based in Longmont, Colorado, announced plans to cease engineering and manufacturing operations once its current run of Alpha 87A and 99 amplifiers was completed. Ehrhorn left open the possibility of selling Alpha/Power, provided the right buyer came along.

Under the anticipated agreement, CrossLink (<http://www.crosslinkinc.com/>) will acquire all assets of, and rights to, the Alpha Amateur Radio product line. It's anticipated that production at the CrossLink facility will resume early in 2001.

In a joint statement CrossLink President/CEO Gary Zarlengo, WA0KLP, and Chief Technical Officer Gordon Hardman, KE3D, said they were "very pleased to have the opportunity to continue bringing the world-renowned Alpha name and product line to the amateur radio community." CrossLink will continue to provide full factory warranty and post-warranty service for existing Alpha owners, Zarlengo and Hardman said.

Ehrhorn, formerly W4ETO, founded Ehrhorn Technological Operations in 1970 and designed all the early Alpha linears. He sold ETO several years ago. In 1996, Ehrhorn and Dave Wilson, AA0RS/G3SZA, bought back the Alpha amplifier business from ETO. Alpha/Power purchased the RFConcepts line of VHF-UHF power amplifiers from Kantronics in late 1998.

A nucleus of Alpha/Power personnel, including Business Vice President Scott Ehrhorn and Customer Service Manager Glenn Pladsen, AE0Q, will join CrossLink. Scott Ehrhorn will become Alpha Product Line Manager, while Pladsen will continue to handle Alpha customer service. According to Hardman, additional space and facilities available at CrossLink will allow ongoing Alpha production at previous rates or greater.

Additional details, including the new Alpha address, telephone, fax and e-mail information, will be posted on the Alpha Web site (<http://www.alpha-power-inc.com>) as they become available.

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The ARRL Letter is published Fridays, 50 times each year, by the American Radio Relay League—The National Association For Amateur Radio—225 Main St, Newington, CT 06111; tel 860-594-0200; fax 860-594-0259; <http://www.arrl.org>. Jim Haynie, W5JBP, President

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