

N.O.R.M.A. NEWSLETTER

THE NORTHERN OHIO REPEATER ASSOCIATION, INC.

P.O. BOX 562, GATES MILLS, OHIO 44040

SEPTEMBER, 2001

NEW MEMBERS:

WB8ZGH, W8ADV, WD8NRW,
KC8MZH

RENEWED MEMBER:

WB8ZGH, W8ADV, WD8NRW,
KC8MZH, AB8HA, KG8RH
(through October 1, 2001).

MEMBERSHIP: by WA8TPP

We want to welcome the following new members: WB8ZGH, W8ADV, WD8NRW, and KC8MZH. If you hear them on, please welcome them to the group. I also want to thank those that renewed their memberships. Your continued support is encouraging. If I missed any renewed members in the list above please excuse the oversight. If you let me know, I'll put you in the next newsletter. Again, the date of your last dues contribution is on the mailing label after your name and call, and, again, the dues are whatever you can afford or feel appropriate for you. If you haven't contributed within the past year, please take time to consider a dues payment. Don't forget to let me know if you have a new call or if someone else in your family (at the same address) gets a new call. Also, please put your call on your checks, and make them payable to N.O.R.M.A. Changes in address, call sign, etc., are also appreciated. Thanks. Also, PLEASE ask a friend or new ham using the repeater to join our group.

REPEATER UPDATE: by WA8TPP

Well, as you all know, we have had a series of problems with the Newbury machine (147.015 +). It all started out many months ago and it seemed we would never get it working again properly.

To start our repair process we looked at the entire system. It was decided that the best approach, considering the age of the entire system, was to purchase a new repeater system. The new system

included a new repeater, controller and final amplifier. It was purchased and installed, and improved the operation for a short time. We then looked at the antenna system, which was the newest part of the system, and it was decided that it was necessary to have the antenna system inspected and replaced if necessary. Our antenna system consists of four (4) antennas, two on the east side and two on the west side of the tower. These antennas are approximately 700 feet high and are fed by 7/8" hard line. At the antenna level the signal is split, using power dividers for the east and west side and then again on the east and west side for the upper and lower antenna. This requires a total of three power dividers plus the phasing harnesses. At each antenna we have about 6 - 8 watts and each antenna has about 10 db of gain. When the antennas were inspected it was found that one of the antennas was filled with water and one power divider was shorted (probably from a lightning strike.) The power dividers (all three) were replaced as well as most of the phasing harnesses. We then found that the antenna lightning arrester was also blown, so that was replaced. (The tower had taken a direct hit, knocking WNCZ-FM radio station off the air as well as the 6 meter backbone.) We also re-tuned the duplexer (6 cavities) and we again were back on the air.

Our repeater, again, was working great but suddenly went down. Upon inspection, we found that the SWR was very high so we again had to have a commercial tower climber inspect the antenna system. The inspection found the first power divider was defective. One of the output connectors fractured and fell off of the newly replaced divider. It was again replaced, this time with one that was constructed by Ed Reilly, W8OKE. While the tower climber was up there we had him reinstall the repaired bad antenna (the one filled with water) so we are back to 4 antennas again.

The system was again working fine, until a spurious radiation was found and we again made the trip to Newbury. Boy are we getting tired of going to Newbury even though it is a nice trip! The spurious signal was traced to the final amplifier and was re-tuned and the bad signal disappeared. It is again working just fine and we hope it stays that way.

The new controller now has voice announcements as appropriate. It is a CAT1000 controller which is the latest version available.

We hope you will again be able to enjoy the repeater as you once did. These updated repairs were quite costly as you can imagine. Being on a commercial tower, we are required to use licensed climbers and we did have to have the tower climbed twice. This alone cost \$1,000. The new repeater system was over \$3,000. As of right now, we are in the black but please keep in mind these expenses when you renew your membership. Now that the system seems to be working again, maybe I can get back to a more regular schedule for the newsletter. Your cooperation and patience have been appreciated.

Your directors,
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