

MOC NEWS



Have any ideas, comments or wish to contribute an article? If so, please contact Terry Romero.
Vol. 2, Issue 1/February 2000

SERVER FAILURE

January 25, at around 10:30AM, "Filehost," our main server went down. This is the fileserver for almost all home accounts, 3rd party software, Solaris operating system and other data. The typical fix could not be implemented since the number of corrections was greater than the available memory. As painful as it was, a read-only mode was all that the system could offer. New replacement hardware arrived late the next evening from California. It was installed and running by 8:00AM, Thursday morning. The new system is running the most recent version of the OS which fixes the problem that allowed the filesystem to become corrupt. We will be implementing periodic checks of the filesystem to ensure similar bugs don't affect the new system in the future.

J Robnett

WRONG WAY LENNY

It wasn't supposed to happen but it did! November 16, 1999, the Hurricane Center in Miami lists Hurricane Lenny as a category 1- weak storm passing West of St. Croix. Just in case, before leaving work to prepare their homes for the coming storm, site technicians, John Williams and Herb Winchell partially performed the hurricane shutdown procedure, leaving power on so that lost observing time would be minimized, and did what was necessary to keep the subreflector in place during storms.

Guess what? Hurricane Lenny had other ideas; it defied the prediction of the Hurricane Center in Miami. The storm churned into a maxi Category 4 storm, with winds of 130 mph and raced in the opposite direction. The "eye" passed over the eastern end of the island, where the VLBA station is located. By this time authorities had called a twenty-four-hour curfew on the island, so the Site Technicians could not return to the station to complete the

shutdown procedures.

Part of the roof was blown off the station building, debris damaged the radiator on the electrical generator, but the antenna remained intact. Many power lines were knocked down and without the generator the station had no power. The all-critical maser which provides the time and extremely stable frequencies for the site had been previously shutdown. Without power for the air conditioners, outside air, like the Andromeda strain virus, began a quiet, inexorable invasion into the station building and the electronic equipment. The salty sea air carried water droplets which condensed on circuit boards in the lower part of the D-Rack, leaving a white deposit. It took a week to get repair parts for the generator and another three days before power and air-conditioning was restored. Meanwhile, the salty deposits on the circuit boards continued a quiet destruction. On January 6, 2000, a BBC (baseboard converter), module failed and Herb Winchell returned it to Paul Harden, for repair. Paul, the LO/IF Technician in charge of BBC repairs, found a hole burned through a PC board in the enormously complicated and expensive module. Apparently, the salt had created a conductive path between resistors and current through the short had burned the board. Alarmed, Paul Harden called Herb who inspected all other modules. Several modules in the bottom three bins of the D-Rack were found to have the residue. Two of the modules failed just from the inspection. Paul Harden hurriedly sent additional modules to the station and wondered what other damage would surface. Then, during the maintenance visit at the end of January, an eight-inch gash was discovered in the subreflector. The damage, now temporarily repaired, is thought to have been caused by Hurricane Lenny.

The maintenance visit allowed the Electronics Division more time to check out modules for damage, and as of this writing, the recovery effort is still ongoing. Terry Cotter, Group Leader for LO/IF, remembering how the military always uses a "conformal" protective

coating for electronic boards exposed to harsh conditions, has ordered materials to similarly coat St. Croix modules.

John Williams, Herb Winchell, and Paul Rhodes vow NEVER to trust the weather forecasts again! Next time they will follow the Hurricane Plan to the letter by shutting down the site completely when a storm is anywhere within the prescribed distance limits.

Full story to appear in next Point Source

C Janes & P Rhodes

TALES OF Y2K

In the Computer Division, preparations had been going on for years, but it was with some apprehension that the Y2K transition was approached. During the last six months of 1999, many tests were done and systems upgraded. It seemed everything had been done. But it is easy to overlook things, and on top of that many circumstances, such as the electric power utility were outside our control.

As it turned out, the transition to the new millennium did not lead to significant problems in the NRAO-NM computer systems. The VLA happily observed both through UT midnight (5pm local time), and local midnight.

Note: Article on the Y2K VLA observation appeared in the January 1, 2000 issue of the Albuquerque Journal. There were a few small problems involving obsolete code which could not be tested in advance, but these problems were dealt with right away.

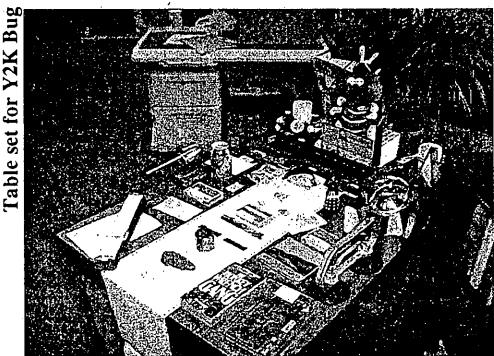
On the morning of January 1, we felt confident enough to drastically scale back planned system support during the long weekend.

This positive outcome is due to the efforts of many people in the computer division. Everyone involved

deserves our thanks, especially those who would have liked to leave for the holidays, but stayed in close vicinity to the AOC, during the days surrounding the Y2K transition. The fact that little went wrong does not mean that the Y2K risk was exaggerated; on the contrary, the lack of problems is a tribute to the efforts of many individuals.

G van Moorsel

In VLBA Operations, Correlator Oper., Alan Kerr and Array Oper., Bob Greschke did their part to keep the Y2K Bug away. It started out as a small offering of candy and a soda to appease the Y2K Bug, but quickly turned into a group effort that took on a life of its own. As the week went by more people brought a variety of things for the collection. By Friday, most divisions of the AOC had a part in setting the table for Mr. Y2K Bug.



Food and objects such as 5.25 diskettes of ancient VLBA pointing data (in case we had to start over), (35 cents for Y2K phone test), Y2K issues of magazines, and even a piece of the Green Bank 300' telescope dish.

So, was the "appeasement" of the Y2K Bug just a silly superstition...or not?

B Greschke & A Kerr

NEW FACES

Scientific Services: Claire Chandler
Electronics: New Mexico Tech Co-op students Sam Field & Ryan Schmidt, OV-VLBA Site Tech, William Robbins and David McKee.

COMPUTER ERGONOMICS

On January 28, Computer Ergonomics seminars for supervisors and employees were held in the AOC. Techniques were presented on adjusting computer work environments to provide a comfortable, productive workplace. At the AOC, Boyd Waters is available to assist you in adjusting your computer workstation. Sessions were video taped and are available for checkout from the Safety Officer.

J Spargo

HEALTHY IDEAS

Start the new year by keeping fit. NRAO offers a variety of benefits through its relationship with NM Tech. Regular, eligible employees may make use of the Swim Center, Gym, & Golf Course. NRAO subsidizes a portion of the membership cost. Therefore, employees pay lower rates. Contact the Personnel office for eligibility forms and information on fees.

ABCs OF VEHICLES

NRAO uses three types of vehicles in its fleet: NSF, AUI owned, and GSA leased. NSF owned vehicles are all based at the VLA or VLBA sites. AUI owned vehicles are based at the AOC. GSA leased vehicles are based at both locations and some VLBA sites. Each group has its own particular function in the organization, but generally shares the same set of rules for use. AUI vehicles have more flexibility since they are owned by the corporation. GSA vehicles have strict policies regarding their usage & fueling. NRAO is billed back for charges when users violate their policies. Shown below is a reminder of what you find in the vehicles & key cases.

Usage:

- Drivers must possess a valid driver's license,
- Family members may NOT be transported in GSA vehicles,
- No parking at residences without prior approval.
- No smoking & no alcoholic beverages in vehicles,
- Report accidents to police promptly, Promptly report damage or loss of credit card to NRAO mgt

Fueling:

- Fill up at VLA site whenever possible, it costs less!
- Always use self service pumps,
- Use REGULAR unleaded fuel, NEVER premium grades,
- Shop for lowest gas prices when feasible.

S Lagoyda

KNOW HOWS OF MEDICAL INSURANCE

NRAO has Medical Insurance available to employees and eligible dependents (your legally married spouse; unmarried children less than 19, dependent on you for financial support; unmarried children under age 25, who are full-time students at an accredited university; and unmarried mentally or physically disabled children age 19 or over who meet established criteria. NOTE: children include natural children, legally adopted children and step children).

Coverage ends for dependent children when your child reaches the age of 19 and is not enrolled in an accredited university; is enrolled at a university, but decides to quit before age 25; continues in school past the age of 25, or an otherwise eligible dependent, marries. If you

divorce, coverage ends for your spouse.

There is an option available for continuing coverage called COBRA. Qualifying dependents will be sent a notice on this once Personnel is notified of ineligibility. The form must be remitted to Personnel within 60 days whether or not coverage is continued.

It is the employee's responsibility to notify the NM Personnel Office about dependents who become ineligible and to request the appropriate forms. Please keep in mind that if the process is not initiated in a timely manner, you will forfeit any and all "extra" premiums you have paid for your ineligible dependent. Additionally, you will be responsible for paying back claims to CIGNA, if any are incurred during the time of ineligibility.

For more information refer to employee handbook, Section I.

A Lewis & T McBride

NOTE OF THANKS

A big thank you to volunteer NMPRA elected Board Members: In 1999, Peggy Perley, Rob Long, Emma Rice, Clint Janes, Linda Majors, Ken Lakies, Jim Ulvestad and new members, Mary Ellen Chavez, Richard Murphy and Allen Lewis. We know you spent countless hours organizing fun activities and having available, a great line of sale merchandise. We appreciate all your efforts on behalf of employees.



Clint & Jacque Janes dance the night away!

Here's a snapshot of the holiday party in December. Providing one-use cameras on the tables was a great idea. The results show real evidence of a fun evening!

NOTE: The minutes of NMPRA meetings are now available in the AOC and VLA Libraries