

VLA SITE NEWSLETTER

From the World's Premier Centimeter Wave Radio Synthesis Telescope

CONGRATULATIONS

Martin Lopez, Richard Murillo, and John Wall have received their hoisting licenses from the State of New Mexico.

AROUND THE VLA

Most of us will go back to 8 hour days on September 29.

Our annual "End of the Summer" lunch and awards ceremony will be at noon on September 25 in the cafeteria. This will be our farewell to our temporary employees and a celebration of completion of a successful summer construction season. We have planned a bar-b-que with all the trimmings. If anyone has any requests, ideas, or special recipes to add to this event, call Patty at ext. 284.

The New Mexico Volunteers for the Outdoors will paint parking barriers and perform other site cleanup work on Sunday, September 7. All NRAO employees are invited to join in the fun.

Dr. Lyle Schwartz, who recently replaced Bob Hughes as AUI President, visited the VLA in August. During his visit, President Schwartz reported that AUI will no longer be operating Brookhaven National Lab on Long Island, New York, once a new contractor is found. Dr. Schwartz envisions major restructuring of AUI once the BNL contract is terminated. Because of the safety and environmental problems that lead to termination of the Brookhaven contract, AUI will be scrutinizing NRAO safety and environment procedures.

Leland Willis, AUI Vice President for Safety and Environment, visited the VLA on August 25 to review VLA safety and health procedures. Willis will file a report

on his visit and findings. Although the VLA fared well overall, new procedures and improved documentation will be necessary in a variety of safety, environmental, and waste disposal areas.

P. Lindsey

SITE & WYE NEWS

Adrian Pino and James Julian attended Dozer School at NMIMT August 25 through 29.

The Track Crew has gauged and leveled the North Arm trackage through DN-9. They have been unable to align this trackage because of the muddy conditions along this portion of track. They are working on D-array intersections on the West Arm at present.

The Auto Shop has developed a data base for the 99 vehicles and equipment it supports. The data base contains information used for maintaining the equipment plus ID numbers, license plate numbers, radio call signs, etc. This shop is 90% done with building a combination plow and brush to remove sand and weeds from main line trackage.

The Grounds Crew has been concentrating on waveguide manhole leak repairs. They are recompacting around manholes to prevent seepage and they are gluing waveguide casements in the center of antenna foundations. These casements were not glued at the original installation.

P. Lewis

BEARING CHANGE

Antenna #1 has been moved up in the overhaul schedule so that the bearing change can be done in clement weather. Separation of yoke and pedestal is

currently scheduled for September 16. The replacement bearing is the old bearing out of Antenna #23. It was refurbished at Kaydon Bearing over the winter for half the cost of a new bearing. This will be the first time that we have tried a refurbished bearing.

L. Serna

AAB NEWS

Antenna #11 painting is complete and Antenna #18 was completed on August 22. This brings the total of antennas painted to 14. By September 5th, we will have painted the quad legs on Antennas #19 and #21, and we hope to paint at least two more sets of quad legs before the end of the summer.

The VLBA antenna at St. Croix continues to give us problems. An idler wheel and axle had slipped on the bearings and it was dragging on the mounting bracket. We had moved it back where it needed to be, but it moved back again. We had the site technicians open up the bearing housings and try to tighten the bearings more on the axle. So far, it has held. We are keeping our fingers crossed that it won't move again. Jim Ruff has designed a thrust collar to be installed if it slips again. This would be a temporary fix until we have money to make the changes needed. (See VLBA Test Memo #56, by J. Thunborg.)

To Fort Davis we sent Ramon Gutierrez, John Wall and Marlin Smith to replace old, worn bearings found during our yearly maintenance visit. We replaced the outside of the azimuth drive wheels #1 and #2, and on the outside of Idler Wheel #2. We hope they will last until funds are available for the needed modifications.

R. Molina

ACCIDENTS

A higher incidence of automobile accidents this year has led to concern for the safety of our VLA drivers. An on-site defensive driving course is planned. Jon Spargo is conducting a study to recommend what other action may help reduce the number of site accidents. Most employees have not had an accident, but all employees are asked to practice care in the use of all government equipment entrusted to us.

E. Cole

VLBA FIELD GROUP WORKSHOP

There will be a VLBA Field Group Workshop from October 6 through 10. The Station Technicians who will be attending are: John Williams (SC), Doug Whiton (HN), Jack Meadows (NL), Gary Tobias (FD), Eric Carlowe (PT), Ron Bates (KP), Bob Sanderson (BR), Bill Hancock (MK), Paul Johnson (LA), Kelly Gatlin (PT), and Jim Brown (OV). A schedule will be available at a later date. Anyone who would like to discuss items, such as maintenance procedure or other subjects, contact Paul Rhodes as soon as possible.

P. Rhodes

SEAT BELTS

The Safety Manual, section 2.13, states that the use of seat belts, where provided, is mandatory by all persons in all NRAO owned or operated vehicles. This includes specific use vehicles such as forklifts, cranes, bulldozers, graders, backhoes, etc. Also, posted speed limits and stop signs around the site are for your safety and the safety of others. Please obey all traffic signs.

E. Cole

VEHICLE MAINTENANCE

The vehicle operator maintenance form has improved the maintenance of NSF vehicles. To similarly improve care of GSA leased vehicles, the same procedure is to be implemented this month for GSA vehicles assigned to the sites. Each of the vehicles in the program will have a clipboard and maintenance form. The first operator of the

day will perform routine procedures such as checking fluid levels, tires, windshield damage, testing operation of safety equipment, and looking for dents. Discrepancies will be noted on the form. On the last working day of the week, the person assigned that vehicle will take the completed form to the VLA Warehouse and put a fresh form on the clipboard. The Business Division will schedule needed repairs based on the completed form. The Warehouse will also report on maintenance forms completed to Lew Serna to ensure compliance.

With user cooperation, it is felt problems that are caught early will reduce costly repairs and vehicle downtime.

S. Lagoyda

75 MHz DIPOLES

Which is the only scientific instrument in the world that can provide high resolution imaging of old electrons? Yep, the VLA! "Low" frequency electrons last longer, and so, when observed in celestial objects, give a picture of the universe when it was very young.

Bill Erickson, University of Tasmania, Namir Kassam, Naval Research Laboratory (NRL), and NRAO's own Rick Perley are especially interested in research at 75 MHz. NRL is building all new 75 MHz receivers for the VLA which will be ready for installation soon. The new receivers will be tested in January, 1998, by temporarily installing 75 MHz dipoles on all 27 antennas. If the January tests are successful, NRAO will consider developing and installing a dipole system that can be automatically deployed and retracted.

C. Janes

DRAFTING REPORT

The original drawings for the VLA, some 350 of them, are old, wrinkled, hard to read, difficult to reproduce, and nearly impossible to use for documenting changes.

Some time back, these drawings were "scanned" into the computer, but the resulting digital images include fold

lines, tears, and blemishes, and are even blanked out in places because of poor contrast in the original. Andre Baca, a mechanical engineering student at NM Tech, has hand-corrected 48 of the scanned images by removing extraneous marks and even redrawing in some cases, so that now 77 of the 350 drawings are completed. These drawings can now be accessed via the network for review and modification. We very much appreciate Andre's dedicated assistance. If we are lucky, we may be able to arrange for Andre to work part time while he is attending classes.

C. Garcia

DRIVER'S LICENSE

Employees must have their driver's license in their possession any time they are operating any NRAO vehicle.

C. Janes

WALKWAY LIGHTS

Our visiting observers can now better find their way to the Visiting Scientist Quarters at night with the walkway light system installed by Ed Gray. The new lights are expected to reduce maintenance problems, as well.

B. Broilo

HVAC NEWS

With work at Los Alamos in August, Steve Troy and Shane Baca completed the vertex HVAC modifications for all VLBA Sites. The modification called for the installation of a proportional control to save energy and to provide more precise temperature control.

A similar modification to the station building temperature and humidity control at Pie Town, Fort Davis, and Kitt Peak Contempo HVAC units has greatly improved temperature control of the maser clock and the D electronics rack.

Each VLBA site has been given a book explaining the operation of the DDC proportional controller to include operation of the software and password and applicable to both vertex room and station building DDCs.

S. Troy