

VLA/VLBA NEWSLETTER

WEATHER STATS		
	HIGH	LOW
Jan.	64.8° (31st)	10.7° (2nd)
Feb.	64.1° (1st)	3.5° (10th)
Total Precipitation: .1" Rain/7" Snow		

From the World's Premier Centimeter Wave Radio Synthesis Telescopes

AROUND THE VLA

Welcome: Ryan Johnson, Operator, and Reydelle Tapia, Co-op student.

Ken Lakies recently resigned as VLA Fire Chief. He has volunteered for very close to three years. Thanks, Ken! Effective immediately, Tom Olney will take over as Fire Chief. Congratulations, Tom!

Phillip Hicks, our Maintenance Coordinator, held a MainSaver/Maintenance class on February 27. He went over the basics covering how the maintenance process works and how to submit a form. Those attending found it very helpful.

Lots of hustle and bustle continues out at the ALMA Site. Two new contractors, a French company, Alcatel, and a company contracted by the Japanese, Klinger, have arrived and begun to receive shipments. Vertex, whose employees were a familiar sight as they stayed here on and off since June of 2002, have completed their test antenna and moved on to their next job.

The Fiber Optic Lab has moved from the Cryo Shop to the upper level of the Control Building. That made it more convenient for Dave McKee and Linda Major to work in the Termination Room on the first floor, as well as giving them more work space.

A.D. COLUMN

Many of you may have heard rumors about a possible requirement to move the VLBA antenna currently on the property of Los Alamos National Laboratories, due to other activities that are increasing in importance in the relevant technical area. We have begun discussions with LANL about this prospective move, including possible new locations and time scales. At present, we are working on developing preferred alternatives that will be submitted to NRAO and LANL management, so that funding for a move may be sought. We are endeavoring to make this

potential move integrate well both with VLBA activities and with the time frame we envision for construction of the New Mexico Array stations of Phase 2 of the EVLA. A preliminary date in the range of 2008 to 2010 for the antenna move is under consideration currently, pending additional discussions and the identification of funding sources. Therefore, we still have at least a few years left at LANL!

As part of the performance evaluation process (PEP), I have identified my own goals for VLA and VLBA activities in calendar year 2003, with some goals for early 2004. Those goals, with associated target dates, now are listed at the A.D. web site, located at <http://www.aoc.nrao.edu/AOC/AD/goals.html>. Since most of these goals are organizational goals (e.g., keeping the EVLA on schedule, replacing an azimuth bearing), and not just my own personal goals, I solicit everyone's assistance in turning these goals into reality! For those who do not have web access, and would like a paper copy of the goals, please feel free to request one from me.

The next all-hands meetings for New Mexico are scheduled for Thursday, March 27, tentatively at 9:30 a.m. in the AOC and at 1:00 p.m. at the VLA site. I hope to have some news about the NRAO budget at that time (which will be midway through the fiscal year!), but no guarantees. An agenda for the meetings will be circulated in the last day or two before March 27.

J. Ulvestad

GOINGS ON IN PUBLIC INFORMATION

February was Science Fair month. Twenty-six NRAO employees helped judge fairs (and in some cases were the only judges!) at Magdalena middle and high schools, Sarracino Middle School, Socorro

High School and Midway Elementary. This year, for the first time, we also helped judge at Cottonwood Charter School and the Alamo Navajo Community School. Thank you all for your strong show of support for our local kids and schools. It's all a part of NRAO's education and public outreach effort, even if it isn't directly tied to radio astronomy!

For four days at the end of February, the VLA electricians installed a new electrical subpanel in the Visitor Center. They worked fast and furiously to minimize the amount of time the Visitor Center had to be closed. Thank you to them, to carpentry, and to everyone else who was involved in making this happen quickly, efficiently, and as smoothly as possible for our guests.

Installation of the subpanel was in preparation for construction of the long-awaited gift shop that will begin in March. The addition is approximately 400 square feet in size and will be attached to the northeast side of the building. Longhorn Construction of Albuquerque plans to complete the project in sixty days, and we will open for business soon thereafter. There will be some remodeling of the bathrooms and existing doors to meet ADA requirements, necessitating occasional closure of the Visitor Center.

And is if there won't be enough going on already, our spring quarter public tours are planned for Sunday, April 6, to take advantage of the tourists who come to the semi-annual opening of the Trinity Site. If you are interested in helping with the tours, please contact Robyn at 7243 or rharriso@nrao.edu.

R. Harrison



New First Responders, left to right: James Sullivan, Paul Savedra, Phillip Sanchez, Tom Olney, Godin Otero, Kelly Greene, Richard Murillo, Carl Oler, Gerald O'Connell, Ramon Molina, Elias Jojola, and Facio Gomez

NEW FIRST RESPONDERS

For many years, the VLA Site has had an EMT Group. This group of employees volunteer their time to help other employees. They are called upon to act in the event of an emergency or to administer First Aid. They also assist during large public tours and during special events. A week long training session was held December 9 through 13, 2002, in the VLA Cafeteria to train fourteen new First Responders from different work groups at the site. These new First Responders will provide the first line of treatment in the field in the event of an injury or accident. Congratulations!

J. Sullivan

SITE & WYE NEWS

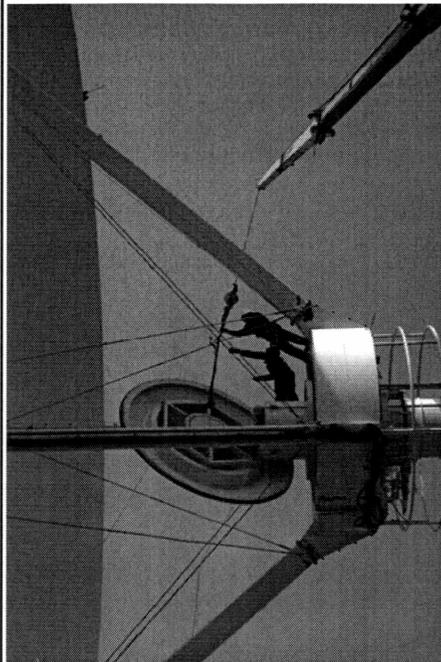
The Track Crew has been trying to complete the aligning and leveling on the north arm but weather and equipment problems have delayed the project. They excavated a pit to bury the badly rotten and broken ties from last year's installation. The pit is big enough to accommodate rotten ties for the next two years! The Carpentry Shop's latest project was painting the signs for the transporters and the signs look great. The Grounds Crew has been placing fiber optic cable on the west arm. They are almost half way down the arm! Because of the volume of work, Lefty Gonzales has been added to the crew at the Auto Shop. Seems like everything breaks at the same time and everyone needs a piece of equipment modified yesterday.

P. Lewis

SUBREFLECTOR SWAP

During the double maintenance day in February the subreflector on the Pie Town VLBA Antenna was replaced with the subreflector that was resurfaced using the FARO arm described in previous articles. The Antenna Mechanics began the swap on a very cold but otherwise

acceptable day. However, just as they were ready to lower the original subreflector, the wind began to blow. Swapping out a subreflector is a tricky operation on a calm day, but with high winds the subreflector acts like a large sail that is impossible to control. After a brief conference we caught a break in the wind and decided to go ahead with the replacement.



Ramon Gutierrez, Kelly Greene (in tube) and Adrian Zamora manipulating the subreflector through the guy wires

In the photograph, you can see that the antenna mechanics are in a very precarious position as they manipulate the subreflector rigging. The Antenna Mechanics had to undo the rigging from the subreflector and attach it on the other side of a guy wire so that the subreflector and crane cable could pass. Antenna Mechanics on the ground used ropes to help stabilize the subreflector and insure that it did not bang into the structure and become damaged as it is lowered.

The newly resurfaced subreflector was then raised and manipulated into position. A large crew was required to safely accomplish this task in one day. On site were; Steve Aragon, Nelson Atencio, Eric Carlowe, Vivek Dhawan, Kelly Gatlin, Kelly Greene, Ramon Gutierrez, Bob McGoldrick, Philip Sanchez, Jon Thunborg, John Wall, and Adrian Zamora.

Preliminary data shows that there is some improvement in antenna efficiency at higher

frequencies, but the subreflector alignment still needs to be optimized. Problems with the 3 mm receiver and recent bad weather have delayed this optimization.

J. Thunborg

MARCH SKIES

For those of you who have had enough of winter, take heart, spring is on the way. It officially arrives on March 20th at 6:00 p.m. local time (01:00 UT on March 21st) when the Sun crosses the equinox in Pisces.

March is also "Messier" month. From 1758 to 1782, Charles Messier, a French astronomer, compiled a catalog of 109 objects often mistaken for comets when viewed through the small telescopes of the day. During the equinox, if you have a small telescope, a good dark site and are quick enough, you can see all 109 Messier objects in one night! Indeed many clubs and amateurs hold "Messier Marathons" during March. That will be tough this year as the Moon is full only four days past the equinox and many Messier objects will be lost in its glow.

With Orion moving ever farther west, early evening sky gazers can turn eastward to the rising lion, Leo. Leo is very distinctive in that it looks like a giant backwards question mark or perhaps a giant sickle. The bright star Regulus marks the tip of the handle or the bottom of the question mark.

Regulus, also called the "Heart of the Lion," is the 25th brightest star in the sky. It is 84 light years distant and at spectral class B7V, shines 160 times brighter than our Sun! A medium sized telescope reveals a companion star, making Regulus a double star where two stars orbit about each other. This situation turns out to be fairly common in our Milky Way galaxy.

West of Leo, in fact just west of the current location of Jupiter, is a faint fuzzy patch known as the "Beehive" cluster. Binoculars or a small telescope will reward you with a good view of many stars in this beautiful open cluster.

There will be a star party on Friday, March 7th, beginning at 7 p.m. at the Etscorn Campus Observatory. It involves a visiting school group and the public is cordially invited to attend. To reach the observatory, take Canyon Road past the golf course pro shop. Turn right on Buck Wolfe Drive and follow the signs to the observatory.

J. Spargo