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VLA/VLBA NEWSLETTER

| NOVEMBER WEATHER STATS | |
|----------------------------|--------------------------|
| HIGH | LOW |
| 68.7° (3 rd) | 5.9° (28 th) |
| Total Precipitation: 1.22" | |

From the World's Premier Centimeter Wave Radio Synthesis Telescopes

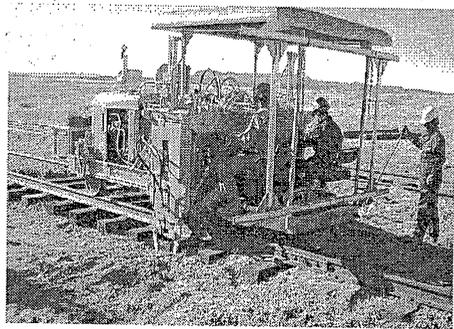
AROUND THE VLA

The New Mexico Personnel Recreation Association has elected three new members to the Board of Directors: Mary Ellen Chavez (reelected), Phillip Sanchez, and Pat Van Buskirk. They will join current Board members Tom Baldwin, Ken Lakies, Emma Rice, and Lia Romero. Many thanks to Allen Lewis and Richard Murillo for all their hard work and dedication while serving on the Board. If you have any questions about the NMPRA, the Constitution and By-Laws can be found at <http://www.aoc.nrao.edu/AOC/PRA...>

Dave Fugate and George Henckel, Tech students working with Marie Glendenning, will begin updating the VLA PC inventory in mid-December.

SPIKE!

The Track Crew has acquired another piece of equipment! Paul Savedra and Jim Rexrode traveled to Muskogee, Oklahoma, and brought back a Norburg Model A Spiker. This machine is capable of spiking 600 ties in a ten hour workday. The machine takes two operators to operate.



Spiking With the Norburg Spiker

When spiking by hand, six spikers are required. This machine eliminates the potential hazards we faced doing the job manually. Having had this machine only eight weeks, the Track Crew is very satisfied with its production. Although the crew is still getting familiar with the spiker, they seem to have gotten the hang of operating it. It is a great addition to our rail equipment!

P. Savedra

NRAO FLAG TO FLY ABOARD SPACE SHUTTLE

Hand made by Dora Spargo (wife of Jon Spargo, NRAO-NM Safety Officer) and signed by NRAO employees, the flag pictured below will fly aboard the next Space Shuttle flight. Astronaut John Grunsfeld, Payload Commander for the next Hubble Space Telescope servicing



Photo by K. Gatlin

mission (STS-109), scheduled for launch on February 14, 2002, will carry a specially-made NRAO flag aboard the Space Shuttle on that mission. This flag has been circulated to all NRAO sites so that employees could sign it prior to the flight. After the flight, Grunsfeld will come to Socorro to return the flag to NRAO.

Grunsfeld, an astronomer who received his Ph.D. from the University of Chicago in 1988, was the principal investigator for a VLA observing project in 1991, and came to Socorro for that observation. He was selected as a NASA astronaut the following year, and has flown in space three times, most recently in December 1999 for the last HST servicing mission. Grunsfeld said he wants to carry the NRAO memento as a way of showing his gratitude for the help he got from the Observatory back in 1991.

P. Lindsey

ST. CROIX REPAIRS

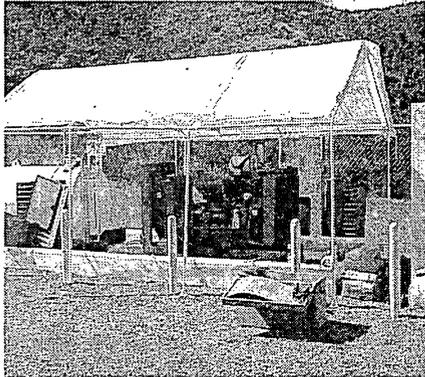
Jim Rexrode and Richard Murillo were called in late October by Peter Allen, St. Croix VLBA Site Manager, about an oil leak on their 150kw generator backup power plant. By telephone, it was agreed that the problem was probably the engine rear main seal. Peter made some calls for local quotes for repairs. The prices were outrageous, plus the vendor wanted to completely remove and transport the generator to their shop. Peter kept in contact with both Paul Rhodes and Pat Lewis to make a decision on how to get this job done soon and by competent people. It was decided that Jim and Richard should make the trip.

Service manuals for the engine, two rear main seals (one oversize and one standard), and a rear gasket were ordered. Also, a special tool to install the oversize seal and an oil pan gasket were ordered. All the tools needed were shipped on November 12 and Jim and Richard flew to St. Croix on November 28, taking their wives, Mary



Spiking by Hand

Rexrode and Yvonne Murillo. Work was begun on the generator on the 29th and completed the same day. The rear main seal was found to be the problem, as expected. They test ran the generator with no leaks noted.



Shade Provided for Generator Work

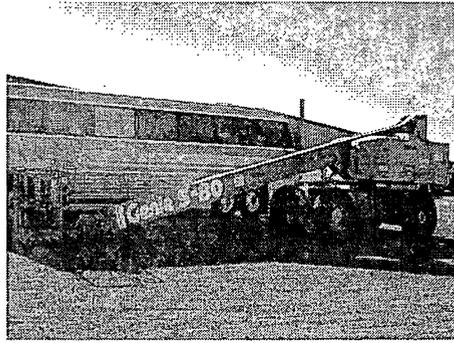
Peter showed his appreciation by inviting the entire group to dinner Friday evening, along with his assistant, Tazewell Reed, his wife Jani, and Pete's girlfriend, Denise. The following day, Pete took everyone sailing on the Caribbean Sea, and snorkeling, which they found quite exciting. On Sunday, December 2, Pete took the group for a complete tour of the island. Overall, a great time was had on St. Croix and a couple of VLA mechanics would not mind going again. Thanks to Pete Allen and Tazewell Reed for their fantastic hospitality and for providing any assistance needed.

R. Murillo

GETTING HIGH

A large portion of the maintenance on the VLA antennas must be conducted at great heights above the ground. In the old days, the antenna mechanics would just climb out on the backup structure or tip the antenna and walk to the apex on the quadruped legs. Luckily we never lost anyone due to a fall during the "Good Old Days." Now, all personnel working at heights must wear a fall protection harness and be attached to a tie off point. However, the safest and most efficient way to work at heights is from the bucket of a manlift.

We have two manlifts - the National Crane and the T-Rex that is used mostly in the antenna barn. The two manlifts are usually sufficient; however, there have been times when we needed a third. Last summer we rented a third manlift that was required to support a second paint crew. The cost to rent this manlift for 5 months was \$25,000.



The Genie S-80 Manlift

Fortunately, this fall Brent Avery found a manlift on the surplus list. Richard Murillo and John Wall traveled to Paquemine, Louisiana, near Baton Rouge, to pick it up. When they got there, there was no way to load the manlift. A local rental company which had a semitrailer with lifts was located. After a long delay, they were able to load the manlift onto their trailer, then transfer it onto NRAO's trailer.

On the return trip, John and Richard had two blowouts, had to find spares, and drove through torrential rains, but finally arrived safely with the manlift, which the mechanics checked out and found was in excellent condition.

J. Thunborg and R. Murillo

SICK LEAVE AND FAMILY SICK LEAVE

On my pay stub, it appears that I get charged for both sick leave and family sick leave when I take family sick leave. What's up?

Eligible employees are granted sick leave to ensure continuous income during absences due to illness or injury. Eligible full-time employees accrue 10 hours of sick leave for each month of full-time employment. NRAO employees may use up to forty hours of accrued sick leave per calendar year to care for seriously ill or injured family members, as listed in the employee handbook. Family sick leave is a type of sick leave benefit, specially developed for NRAO employees.

When an employee uses family sick leave, two transactions are made on their pay stub. First, sick leave is recorded and a deduction is made to the employee's sick leave hour's balance. So far this transaction is pretty straightforward. The next step is what usually confuses people. For NRAO to be able to calculate the amount of family sick time remaining, an additional transaction shows up on the pay stub denoting family sick time, "Ytd Sck Fam Tkn". *This transaction only affects the balance of family sick time, and has no effect on sick leave balance.*

If you compare your pay stubs, you'll see this is true. First, there is an increase in the accumulated family sick leave used. Second, there is a decrease, of the same amount, in your sick leave balance. NRAO is required to track the amount of employee's accumulated sick family leave (ASFL) used. ASFL cannot exceed 40 hours per year for full time employees.

Sick family leave time is a unique benefit for NRAO. NRAO had to develop a special way to track ASFL in our payroll processing system, by substituting sick family leave hours for straight time hours worked. For hours worked, sick family leave time is equivalent to regular straight time hours worked. If someone takes 10 hours of sick family, their pay stub will in fact show 60 hours straight time, 10 hours sick family, and 10 hours sick leave. To calculate the actual number of hours you worked, sick family leave time needs to be added to 'regular' hours.

D. Welty

DECEMBER SKIES

As Saturn continues to try and dodge the bull (Taurus), Jupiter is hanging out with the twins (Gemini). With Mars in the west, the planetary cast of characters remains pretty much unchanged for most of the month. During the last evenings of the month, Mercury will be visible just above the horizon in the southwest.

Saturn reaches opposition, opposite from the sun in the sky, on December 2-3. During the next few winters, Saturn will offer some of the best views of the ringed planet available, as the rings will be favorably inclined. If you missed the occultation of Saturn by the moon on November 30th, you'll have another chance on December 28th. The cover up will begin at about 5:40 p.m. just above the eastern horizon with Saturn reappearing on the west side of the moon about 30 minutes later at 6:10 p.m..

Another cover up will be attempted on December 14th, as the moon will partially eclipse the Sun. At our latitude, 34 degrees, the moon will hide about 20% of the sun. The fun starts around 1:40 p.m. and ends an hour later at 2:40 p.m.. **Please remember to wear proper eye protection when viewing an eclipse!** There are two web sites you can visit to learn about safely viewing solar eclipses. They are: <http://www.skypub.com> or <http://sunearth.gsfc.nasa.gov/eclipse/>

J. Spargo