

MAR 15 2000

SANTA FE, NM
LOS ALAMOS, NM

VLA/VLBA

NEWSLETTER

From the World's Premier Centimeter Wave Radio Synthesis Telescopes

WEATHER STATS		
	HIGH	LOW
February	66° (27th)	4° (2nd)
L. Brothers		

AROUND THE VLA

Due to the impending retirement of Alison Patrick at the end of March, her many duties have been distributed to a number of people. Charley Chavez will be responsible for the Guards, Ken Lakies will take over as Fire Brigade Chief, Garry Morris will assume EMS duties, and Patty Lindsey will take over other administrative responsibilities.

Congratulations! Michael M. Torres and Chad Jones completed 32 hours training in the Dozer Operation Course, and Ellison Thompson has completed 32 hours training in the Motor Grader Operation Course at New Mexico Tech Equipment Training Program.

Many thanks to Godin Otero and Johnny Gonzales for the fence around the new Satellite Tracking System (STS), which added to the Interference Protection Group's (IPG) arsenal of RF monitoring stations east of VSQ 3. Once the Machine Shop completes an adaptor for the drive motor, the STS will be controlled remotely via the network to track Low Earth Orbit satellites, among other things. The fence is required because the antenna can move quickly and unexpectedly; please don't go inside the fenced area without first contacting IPG.

The NMPRA summer picnic is set for Saturday, June 17. Set that date aside now!

Dick Sramek has commissioned an engineering study for the Expanded VLA (EVLA) project based on Rick Perley's proposal to the NSF. A group, which includes Jim Ruff, Bob Broilo, and Rudy Latasa from the site, is expected to come up with functional diagrams to the module level, design schedules, specifications, and revised cost estimates by January 1, 2001. Jim will be designing the feed ring layout, azimuth wrap-up changes, and other mechanical issues. Bob will be interfacing the servo, ACU, and absolute encoder

electronics with a new Monitor and Control System. Finally, cryogenics issues will be addressed by Rudy. Team Leader for the project is Jim Jackson of the Electronics Division in Socorro.

Bob McGoldrick and Doug Scott have completed all the training requirements for VLBA Systems Tech assignment (See January 2000 issue of newsletter). Bob will be accompanying the ES Division Maintenance team visit to North Liberty in April as the "re-Pete." Others who will be joining the VLBA Systems Tech pool soon are Brent Willoughby and Bill Morris. The Systems Techs will take turns on VLBA trips and continue their training with, for instance, visits to Pie Town. The Systems Tech training will be repeated whenever a new VLBA site tech is hired and during VLBA workshops.

Please note KPVLBA has a new shipping address. National Radio Astronomy Observatory, NRAO Kitt Peak VLBA Station, PMB 273, 2004 E. Irvington Rd., Tucson, AZ USA 85714-1809. Please give advance notice for large items.

Patrick Murphy has announced that all NRAO sites now have video conferencing capabilities. The use of these systems will be coordinated by Sheila Marks and technical personnel will be available at the sites to help in the operation of the equipment. This equipment is available at the AOC, CV, GB, and TUC.

YO MEYERS

If you are at the VLA around 12:24 you will see a High School student show up for work. Without fail on Mondays through Thursdays, Yo Meyers will drive up. Yo works four-4 hour-days at the VLA Site. He is a Magdalena student who has worked at the VLA for about six months now. He is participating in a School-to-Work program

and began working at the VLA by inputting ES Division asset data and setting up system hierarchies into the MAINSAVER Database. For the last four months Yo has been vectorizing drawings. ES Division has been converting useful old VLA blueprints to AutoCAD type drawings. Vectorizing a drawing is to make corrections to a drawing that has been scanned and is to be converted into an AutoCAD drawing. Yo learned "vectorization" very much on his own. He has worked for the most part unsupervised and has quietly turned out several drawings. Not only is Yo very sharp, he is also diligent, reliable, dependable and responsible. I guess with a name like his, "Yo gotta be." Yo graduates from Magdalena High this year and tentatively plans to attend New Mexico State.

L. Serna

CREDIT CARD PROCEDURES

If using your NRAO credit card to make a purchase, you must fill out a Purchase Requisition, with the following information:

- Successful Vendor and telephone number
- Under "Purchase Order No." write "Credit Card" and the date
- Fill in "Need Date"
- Fill in "Delivery Date" if known
- Fill in "Account No." and "Project No."
- Specify "Deliver To" and "Location"
- In "Terms" box, write "CC"
- If you know, fill in "Ship Via" box
- In "Item No." box, number items ordered
- Specify "Quantity" purchased
- Include a "Description" of items
- Fill in the "Unit Price" and "Total Price"
- Requisitioner must sign and date Req.
- Immediate Supervisor must approve Req.
- It must then be approved by Lew Serna or Jon Thunborg
- Give the completed Requisition to Jo Cason along with any shipping or invoice papers associated with the order.

J. Cason

ANTENNA APEX HANDRAILS

Approval has been granted for installing apex handrails on the VLA antennas. The VLA antennas should all have handrails by this fall. VLBA handrail installations have been added to the Tiger Team list, so the VLBA will be finished in about three years.

J. Ruff

SITE & WYE NEWS

Godin and Johnny re-worked the visitors' path from the roadway to the picnic area. The area is now pretty well free of all stumbling hazards and it looks much better than ever before. Good job!!

The Track Crew has attempted to level the north arm track from CN-8 to 9 but the ground is still so saturated that it cannot be lifted. The crew has moved onto the west arm to try to complete leveling from BW-5 to 6.

Charley has taken over the day-to-day supervision of the guards. If you happen to see a bleary eyed, cranky Charley- someone forgot to call him to let him know they weren't coming in!! Good luck, Charley.

The Auto Shop has been as busy as ever, trying to keep up with the daily break-downs, the PM's and trying to negotiate all of this through MAINSAVER. Ahhh well, seems like SOP.

P. Lewis

THE PINK HAT

NRAO's insurance representative jokingly suggested that anyone caught not wearing their hard hat at work should be made to wear a pink hard hat with words "I got caught not wearing my hard hat today." Although hard hats are the most visible safety gear worn in the workplace, this is a bit overkill. However, let's stick to the rules. Working at the VLA site requires all employees and visitors to wear hard hats where posted. In addition, for ES Division employees hard hats must be worn at all times in all work areas including while working on indoor construction projects. Obviously low risk areas such as offices, coffee/break rooms and low-risk shops such as the Servo, Machine, Carpenters, Electrical, Cryo, and Auto Mechanics shops are exempt.

E. Cole

SHIVA/SHIWANA

Ever wonder about the 12 foot high stainless steel, burnished sculpture, mounted on a cement foundation, in front of the Control Building? Well, you are not the only one. Many visitors ask about it. The sculpture is named SHIVA/SHIWANA. The sculptor, Jon Barlow Hudson was requested to relate the sculpture to the VLA, its environment, the local history, and that of astronomy.



SHIVA/SHIWANA

SHIVA (or SIVA) one of the major gods of HINDUISM; in the Hindu trinity he represents the force of destruction and cosmic dissolution. The multi-armed destroyer-god of the Hindu triad, restores what he destroys, and so represents freedom and creativity. He is worshiped as a patron of the dance in southern India. One of the sculptors most favorite sculptures was the East Indian "Shiva Dancing".



SHIVA

SHIWANA is the word from a nearby Laguna tribe for a healer who has been given his powers through being struck by lightning.

In describing the sculpture, Hudson wrote; "SHIVA/SHIWANA is a balance of contrasting elements: the phallic wings, the void at the center. The ends of the wings are concave, formed by trihedrons, which, when used as radar reflectors, return the beam to its source, from whatever angle it may be in. The wings are movement, the center stillness: it is a pulsar, a breathing in and out of form and space, light and shadow, a black hole. It is a cosmic tree; the spokes of the wheel of time; the trinity supported by the fourth element, Mother Earth. It is Shiva dancingly balanced on one leg, the eternal round of creation, destruction and recreation".

"The central empty space is symbolic of the "void" at the center of being, the "nothing" from which matter is created, or into which matter is drawn, as into a Black Hole. The wings of the piece are in the shape of the VLA Y-configuration, but at the same time open in a way reminiscent of the telescope dish. Or in another sense, like the arms of Indian sun worshipers raising the morning sun. The ends of the wings, is the trihedron with a smaller reverse trihedron within it."

L Sema

GOIN' DOWNTOWN

Don Ellis and Garry Morris recently traveled to the AOC and met with Everett Callan of the Front End Group to see the actual assembly of parts they have been working on in the Machine Shop. They were able to see how the parts were used and what was essential in the machining. The trip was valuable in gaining insight on the design and fabrication of future dewars.

D. Ellis

GOT A LOCK?

If you have a storage room/office/workshop, etc., or any area that is kept locked either with a keyed padlock or combination lock, please give an extra key, or the combination, to Patty. Why would we want one? If you were not around and there was a fire, burst pipe, or some other incident, whatever is in storage could be seriously harmed. The Fire Brigade needs to have access to these storage areas. Even though entry could be made by breaking down the door, that should be an absolute last resort. These keys and combinations are kept in the safe in labeled envelopes. Also, if your key is left at home and you need to access that area, you may come by and check the key out.

A. Patrick