

VLA/VLBA NEWSLETTER

WEATHER STATS		
	HIGH	LOW
March	69.5° (31st)	9.6° (30th)
April	73.1° (13th)	15.7° (9th)
Total Precipitation: .1" Snow		

From the World's Premier Centimeter Wave Radio Synthesis Telescopes

AROUND THE VLA

Congratulations: Jay Apachito, who just transferred from the Grounds Crew to the Antenna Mechanics. Welcome aboard: Isidro Madril, Grounds Crew.

A.D. COLUMN

We finally have our budget numbers for the operations part of NRAO-New Mexico for Fiscal Year 2003, and have distributed the allocations among the divisions. (After all, there are still 5 months left in the Fiscal Year!) Unfortunately, as always, the money we have allocated for materials and services is not as high as we would like in order to maintain our infrastructure well and also to take on many of the projects that we need done. We expect to do an elevation-bearing change on the Saint Croix VLBA antenna this summer, as well as regular maintenance visits to North Liberty and Kitt Peak. Replacing the azimuth bearing on Antenna 15 is a big-ticket item; we are unable to allocate funds to buy another bearing at present, since we need to hold back a modest amount of reserves. In early summer, we intend to decide whether we have enough money in reserves to purchase a new bearing, and therefore can plan to install our only spare on Antenna 15.

Congratulations to the crew that has been installing the EVLA fiber optic cable, and has already completed the west arm ahead of schedule! Thanks to Pat Lewis, Godin Otero, Jay Apachito, Carl Cano, Johnny Gonzales, Elias Jojola, Joe Sanchez, Richard Torres, and Ray Valenzuela for their hard work. Now, it's on to the next arm of the wye!

The semi-annual meeting of the American Astronomical Society will be held in Nashville, Tennessee in late May. This summer meeting traditionally is smaller than the January meeting, but we expect there to be at least two press conferences including NRAO results at this meeting. Stay tuned to

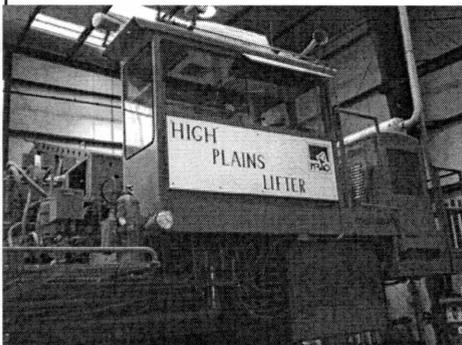
the NRAO web site for press releases during the last week in May for more details on the featured results.

There is a new addition to the top of the VLBA web page, at <http://www.aoc.nrao.edu/vlba/html/VLBA.html>. We are now featuring "News from the VLBA," with a recent scientific result highlighted. We plan to update this page with a new result fairly frequently, approximately on a monthly basis. Thanks to Greg Taylor for volunteering to collect the results, and to Robyn Harrison for updating the web page. Let us know what you think.

J. Ulvestad

TRANSPORTER II DUBBED

Exactly one year ago today, May 1, 2002, a contest was held to rename each of the antenna transporters. In June of last year Ian Hoffman won \$100 with his two winning entries, the "Jack Of Diamonds" and "High Plains Lifter". Of course we couldn't place such honorable



Transporter II, aka High Plains Lifter

names like these aboard until after the transporters had a complete makeover (paint job).

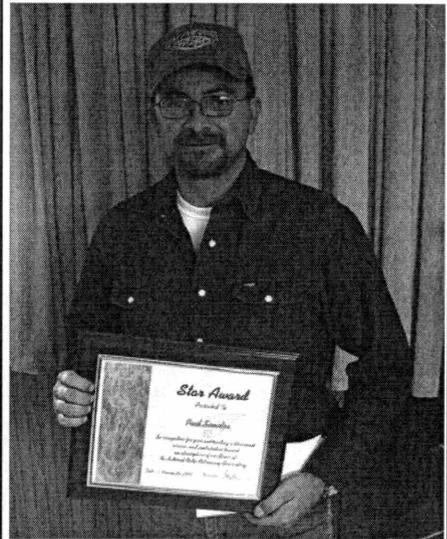
Transporter II was painted late last year by the Transporter crew members Martin Lopez, Marlin Smith and Tom Olney. The "High

Plains Drifter" artwork and logo on Transporter II was painted by Gerald O'Connell. Transporter II looks great, these guys did a real classy job! You should check it out next time you get a chance, perhaps during the A-array reconfiguration that's coming up. Transporter I will get it's makeover and "Jack of Diamonds" artwork as soon as time.. and money permit.

L. Serna

VLA STAR AWARD

Paul Savedra received a Star Award in recognition of his new design for VLA



railroad intersections. The old design for the railroad intersection called for expensive, special cut railroad planks. Paul's new design uses standard railroad ties and eliminates 44 special planks per intersection. Paul and the Track Crew have installed more than 32 new intersections over the last four years, and the new design has proved to be much sturdier than the old one. The cost savings per intersection is \$2,800 or about \$90,000 over the last four years. Buen Jale, Paul!

M. McKinnon & P. Lewis

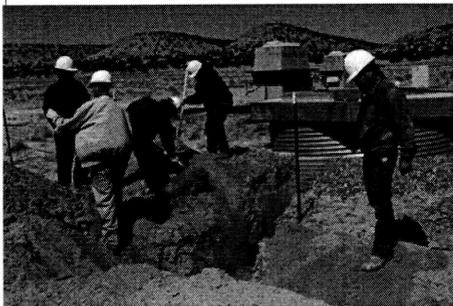
NMPRA PICNIC

You're invited to a picnic sponsored by the New Mexico Personnel Recreation Association (PRA)! Please join us for the 'First Day of Summer Celebration Picnic' on Saturday, June 21st at Sedillo Park from 10:00 a.m. to 4:00 p.m.. We'll be having burgers and hotdogs personally cooked by your friendly PRA board members. All the fixings will be provided by KFC!

There will be tons of games for kids and adults to enjoy, along with a dunk tank – here's your chance to dunk the fellow employee that you love! Not enough, you say? Classic Sweets will be providing a jumping balloon and snow cones to beat the summertime heat!

Tickets are \$5.00 for adults – hey, we can't go too far in the red here – and all kids, of course, get in for free. Each kiddo will receive a goody bag filled with a plethora of toys and candy, and we'll be giving away a few **very nice** door prizes for you kids at heart!

Ticket price too steep for ya? Come on down to the park early (around 8:00 a.m.), and help us out by setting up the tent, or, help us clean up afterwards, and you get your ticket **free!** Remember, we are a volunteer organization on a **very tight** budget, so any help at all is sincerely appreciated! It's going to be a whole lot of fun, so bring the family down to the park and celebrate summertime! See you there!



The Fiber Optic Placement Crew at AW9

NMPRA Board

SITE & WYE NEWS

The Fiber Optic Placement Crew completed the west arm placement on April 17th. As soon as the markers and signs are in place, they will gear up for the east arm placement. The Track Crew will begin tie replacement as soon as the "A" array move is complete. They have been repairing road crossings and rail

intersections in preparation for the move. The Carpentry Shop has been replacing antenna pedestal platforms in order to make them safer to work on when moving antennas. The Auto Shop has been trying to get track equipment in shape and rebuilding engines on old equipment. Never a dull moment!

P. Lewis

VLA ACTIVITY UP

VLA activity has increased in spite of budget cuts this fiscal year. Keeping the VLA and The VLBA operational has always been a big job but when you add ALMA and the EVLA, it becomes an adventure. The ALMA Site is a flurry of activity with the Japanese and Europeans assembling their antennas. They have constructed their own Antenna Assembly Buildings and have brought in more cranes than you'll see at the Bosque del Apache and enough bins to look like a shipyard (just kidding about the bins). The VLA is still called upon by ALMA for a helping hand occasionally, but for the most part these guys are self sufficient. The ALMA AEG (Antenna Evaluation Group) is quietly running tests on the North American Antenna built by Vertex. It won't be long and they will be testing more antennas.

As we snub our noses at adversity and superstition, we take the first steps toward making the VLA more powerful and flexible than ever before. The EVLA Project is in full swing, with Antenna #13 in the AAB for its modifications, and the Fiber installation now 1/3 complete but still ongoing. Antenna #13 will become the state of the art prototype antenna and will receive a new Feed Cone with new feeds, new receivers, fiber optic equipment, new cryogenics, new HVAC and more. Major modifications to the Control Building with the new correlator and fiber optic equipment is about to happen soon.

VLBA operations continue to pose challenges as the Tiger Team visits St. Croix, Kitt Peak, and North Liberty this year. A second special trip is scheduled for St. Croix to replace an elevation bearing that has been producing metal particles. Although there will be no new VLA infrastructure projects this year, the Engineering, Site & Wye, Antenna and Electrical groups are busy with modifications and support required for Operations, EVLA and ALMA. It is good fortune for the people who work at the VLA, at a time when two major historic Astronomy projects are underway and a privilege to be smack in the middle of it all!

L. Serna

MAY SKIES

The month of May features two eclipses, one of which will be visible from most of North America. It is a partial lunar eclipse during the full moon on the 15th. The eclipse will have begun for western North America as the moon rises just after sunset. The maximum will last from about 9:14 through 10:06 p.m. MDT. Folks in South America will get to see a total eclipse. The second eclipse, on the 31st, will be visible in Europe and Northern Asia. To round out the moon's schedule, it will new on the 1st, first quarter on the 9th, full on the 15th, quarter on the 22nd and new again on the 31st.

Meanwhile our evening planet parade continues to be dominated Jupiter and Saturn. This will be your last good chance to see Saturn and its magnificent rings for a while, as it will set 1½ hours after sunset by the end of the month. Jupiter is ideally placed for binocular or telescopic viewing in the early evening.

Venus rises in the morning sky about 1 hour before sunrise. Look for it very low in the east about 45 minutes before sunup. During late May, Venus is joined by Mercury. Around the 26th, see if you can spot Mercury with binoculars about 2 degrees below and slightly to the right of Venus.

By the end of the month, Mars will rise as early as 1a.m., MDT. Steadily gaining in brightness, it will outshine all of the surrounding stars. As it gets ever nearer to the Earth we will begin to be able to pick out surface features using small telescopes. Early May sees the onset of spring in the Martian southern hemisphere. Systematic observing with a small telescope should reveal a shrinking polar ice cap as the hemisphere warms.

So far this month there are two star parties scheduled for the Etscom Campus Observatory. On Saturday, May 3rd, a star party will be held for the participants in the "M" Mountain Soccer Tournament. On May 23rd a star party will be held for a group of students from the Laguna Pueblo and the 4th Grade from Zimmerly Elementary School. The public is cordially invited to either or both of these gatherings, which will begin at about 8:30p.m.

To reach the Etscom Campus Observatory, take Canyon Road past the Golf Course. Turn right on Buck Wolfe Drive and follow the signs to the observatory.

J. Spargo