



# AOC NEWS

Vol. 4 - Issue 2/ April, 2002

## NEW FACES - WELCOME

Electronics, Conrad Sarvis; ALMA Electronics, Landon Westenberger; Data Management, Honglin Ye; MIS, Dennis Walsh; and this year's NRAO Summer Students, listed below and who will begin arriving in late May, early June.

Name	Affiliation	NRAO Advisor/s
James Anderson	NM Tech	J. Ulvestad
Eileen Chollet	Rice Univ.	L. Sjouwerman
Jared Crossley	NM Tech	M. Rupen
Claudia Cyganowski	Harvard	M. Goss
Katie Devine	Carleton College	C. Brogan
Melissa Douthit	Calif. St. Univ. San Marcos	T. Cornwell
Therese Fukuda	Univ. of Denver	A. Kemball
John Kelly	Univ. of Virginia	H. Schmitt
Brian Metzger	Univ. of Iowa	D. Frail
Daniel Perley	Cornell	A. Kemball
Karen Peterson	Yale Univ.	T. Rector
Andreea Petric	Columbia	C. Carilli
Lindsey Pollack	U C Berkeley	G. Taylor

## NOTES FROM THE A.D.

The spring and early summer are usually a time of meetings for NRAO, with various advisory committees meeting in Socorro or at other locations. This year, there also are several other general astronomy meetings that are happening in New Mexico. In conjunction with these events, people can expect more strangers around the AOC, and also more busloads of astronomy-related tour groups at the VLA. If you notice people wandering around the AOC with a dazed look, and an appearance of being lost, please do your best to help out. In advance, I thank all the people who are contributing to putting on these meetings and tours, and showing our best face to our guests. A list of major meetings and astronomer-related tours in the area follows:

April 4-6	NRAO AUI Visiting Committee, AOC
April 19	Local Teachers Workshop, VLA Site
April 20-23	High Energy Astrophysics Division (HEAD) of the American Astronomical Society, Albuquerque
April 24	HEAD tour, VLA
June 2-6	American Astronomical Society (AAS), Albuquerque
June 2	AAS tour, VLA
June 6	AAS press tour, VLA
June 10-11	EVLA Science Advisory Group, AOC
June 18-25	Synthesis Imaging Summer School, AOC
June 23	Summer School tour, VLA
July 10-12	NRAO Business Managers Meeting, AOC

The American Astronomical Society is the main professional society of astronomers in the United States, and holds two general meetings per year, in January and in June. The meeting takes place in

Albuquerque about once per decade; previous meetings there were held in 1981 and in 1990. At the AAS general meetings, there are many parallel sessions of talks and posters, presenting astronomical research, new and proposed instrumental capabilities, and descriptions of education programs and initiatives. At the meeting this June, NRAO is organizing an all-day session of invited scientific talks entitled "The New Radio Universe." The list of talks taking place at this session can be found at:

<http://www.aas.org/meetings/aas200/prelim/radio.html>

or in the upcoming April NRAO Newsletter.

Jim Ulvestad

## CONGRATULATIONS

Each year, the NRAO recognizes those employees who have shown their dedication and commitment to the Observatory at an annual Service Award Banquet. At this year's banquet on April 3, 2002, the guests of honor are: 20 years: Nancy Ortiz and Dennis Polyard, 10 years: Laurel Armijo, Tom Baldwin, Dennis Beard, Chris Carilli, Mark Hoffman, Rob Long, Pat Madigan, Linda Major, Roy Ralph, Paul Savedra, Marlin Smith, Meri Stanley, Steven Thompson and Gustaaf van Moorsel. Thank you for your years of service - we look forward to honoring you again, 10 years from now!

Allen Lewis and Theresa McBride

## NEW SHIELDED CHAMBER

The shielded chamber is erected! The giant room is built of metal panels to keep out radio frequency interference. Tests can be conducted inside on very sensitive radio receiver equipment being built for ALMA and EVLA without getting swamped with radio noise from nearby TV stations, FAA radar, and airplane transponders.

The chamber is huge, but where is it? The chamber measures 16 feet wide by 36 feet long by 10 feet high, which is a big structure to hide. As luck would have it, the warehouse at the VLA had extra room as a result of a reduction in inventory. The chamber just fits in the northeast corner behind all the shelves of copy paper, HVAC fittings, and janitor supplies.

Charley Chavez, Gerald O'Connell, and Richard Rupp put the pieces together. The assembly came in parts delivered from Green Bank on a flatbed truck. There were 42 panels, the lightest being 150 lbs., and 3500 screws, each of which had to be torqued to 90 ft-lb. and then re-checked.

Dan Mertely will be in charge of the chamber until an EMC Engineer can be recruited.

Clint Janes

## VLA SITE AND WYE NEWS

Godin Otero and Johnny Gonzales have been getting the ALMA Site ready for the arrival of the Vertex Contractor. A parking area outside the fence has been prepared and base course (gravel) has been spread and compacted inside the fence around the foundation. They have also helped Jaime Montero pull electrical wire.

The Track Crew has been busy re-building CN-7 spur. The station has not been draining after snow and rain (what is rain?) and the sub-base had become water logged allowing the track to sink. The entire station was excavated, backfilled with dry soil and compacted. They are now in the process of rebuilding the station fence and building and installing new gates.

The Carpentry Shop has been assembling an RFI shielded room inside the warehouse. Charley Chavez has led the effort and Gerald O'Connell and Richard Rupp have worked with him. Looks like the room will be ready for testing before the end of March! Prior to this, Charley and Gerald set forms and poured concrete at the ALMA Site for electrical boxes and weather towers and at the holography tower for work slabs.

The Auto Shop has been swamped with dump trucks! (If we can't have rain we'll take trucks.) These trucks are old and a lot of things seem to break or need adjustment on all of them at the same time. They have also re-started work on the concrete mixer. It will be installed on a single unit instead of on a semi-trailer. As with most other work in this shop, there needs to be a lot of modification done on the truck. Jimmy Rexrode will also build an enclosed cab for the new trencher. Fiber optic cable will be installed year round and it gets very cold on an open machine in winter!

Pat Lewis

## SEIZE THE OPPORTUNITY

If you have not already taken the opportunity to volunteer during a day of guided tours at the VLA, you are missing out! In February we hosted 267 guests and the weather was nice. In March, 187 people braved howling winds to visit us. Pat Madigan and Ken Lakies went above and beyond the call of duty and fixed elk steaks for the volunteers! Our last tour is scheduled for Sunday, April 21, 2002.

While we can't promise such a deluxe lunch this time, we can guarantee a fun time showing off our good work to those who support us with their taxes. If you're interested in helping out, contact Robyn at 7243 or [rharriso@nrao.edu](mailto:rharriso@nrao.edu).

To date, Brent Avery, Mike Bradford, Crystal Brogan, Barry Clark, Tracy Clarke, Mark Claussen, Kristy Dyer, Dave Finley, Lisa Foley, Kelly Gatlin, Johnny Gonzales, Miller Goss, Gareth Harris, Phillip Hicks, Jon Jakischa, Clint Janes, Ken Lakies, Pat Madigan, Prescilla Mauldin, Mark McKinnon, Johnny Montoya, Garry Morris, Gerald O'Connell, Carl Oler, Godin Otero, Ricky Rael, Travis Rector, Mike Revnell, Paul Rhodes, Richard Rupp, Joe Sanchez, Paul Savedra, Lew Serna, Debra Shepherd, Kerry Shores, Jon Spargo, Greg Taylor, Ellison Thompson, Pat Trujillo, Jim Ulvestad, Pat Van Buskirk, and Jason Wurnig have generously volunteered their time and talent to this effort. Thank you, thank you, thank you!

Robyn Harrison

## CELL PHONE PRECAUTION

I'm sure many of you have heard or read the following phrases. "Oil and water don't mix," or "gas and alcohol don't mix!" To these I would propose we add another, "**Gas and cell phones don't mix!**" Recently, a local TV station reported an incident involving a fire at a gasoline filling station.

The fire began while vehicle fueling was in progress. The person doing the fueling had a cell phone in his pocket, which apparently rang. When the cell phone was removed from his pocket and activated a spark, from a static electricity discharge, it ignited the gasoline fumes starting the fire.

This is the second alleged case of this happening in this region and is, of course, attributed to our dry climate. To be on the safe side you might want to consider leaving your cell phone in your vehicle while it is being fueled.

As for NRAO vehicles, we are also concerned about vehicle safety vs. cell phones. In Section 26, of the NRAO/NM Safety Manual, paragraph 5 contains rules for use of cell phones in NRAO vehicles. It is also worth noting that the U.S. General Services Administration (GSA) recommends that cell phone use be discouraged in all GSA vehicles. Citing recent data from a survey conducted by the National Highway Traffic Safety Administration, GSA is working toward creating a policy for use of cell phones in government vehicles.

Following the rules, as outlined in the Safety Manual, more than meets the concerns of GSA.

Jon Spargo, NRAO NM Safety Officer

## ANOTHER SIDE OF LIFE

Yes, there is life past resistors and capacitors for some of us "basement dwellers." For instance, Rob Long, Steve Thompson, and new-comer Carlos Marrero are guitar players. Student co-op Chris Boyden plays a fair trumpet. In fact, they all get together with Jim Ruff and others and jam it up once a week.

But now we have a real star, Tech student and ALMA Assistant Engineer Nico Marrero. Nico will play the Pirate King in a production of Gilbert and Sullivan's *Pirates of Penzance* in Socorro, on April 19-21, 2002. E-mail Nico at [nmarrero@nrao.edu](mailto:nmarrero@nrao.edu) for details.

C. Janes

## IDEAS REQUESTED

A search for a new design for a VLA t-shirt is underway. It needs to be simple, preferably one color, to be printed either front or back. If you have an idea, please contact Robyn Harrison at [rharriso@nrao.edu](mailto:rharriso@nrao.edu) by April 12, 2002.

## APRIL SKIES

April is pretty much a repeat of March as far as the planets are concerned. Jupiter, Saturn, Mars and Venus can all be found in the same positions, relative to the constellations. Of course, most will have moved further west and will set a little earlier.

Venus will be low on the horizon in the west-northwest early in the month but will climb progressively higher during the month. Late in the month Mercury will join Venus in the evening sky appearing to the right of Venus and lower. By the 30<sup>th</sup>, Mercury will be visible for about 1 1/2 hours after sunset offering a good chance to view this elusive planet.

The moon is in its last quarter on the 4<sup>th</sup>, new on the 12<sup>th</sup>, first quarter on the 20<sup>th</sup> and full on the 26<sup>th</sup>. As the moon transitions from new to full it will step past each of the planets as it climbs from west to east. April is also the month we begin Daylight Savings Time in most of North America. On April 7<sup>th</sup> remember to set your clock ahead 1 hour (spring forward-fall back).

On Friday, April 12<sup>th</sup>, the New Mexico Tech Astronomy Club will host a star party in conjunction with the New Mexico State Science Fair. Owing to Daylight Time, the star party will begin at 8:30 p.m. To reach the observatory, take Canyon Road (on the Tech Campus) past the golf shop. Turn right on Buck Wolfe Drive and follow the signs.

Our constellation of the month is Leo the Lion, which appears almost directly overhead just after dark. You can recognize Leo, as it appears as a giant backwards question mark with the bright star Regulus at the bottom.

Just to the west of Leo is the famous open cluster called the "Beehive Cluster" which can be seen with the naked eye. Club members will show you how to find these and other objects during the star party. Special guests of the Astronomy Club will be Mrs. Borchers's class and 4<sup>th</sup> graders from San Antonio Elementary School.

Jon Spargo, New Mexico Tech Astronomy Club

## REMINDER

Spring Forward! Daylight Saving Time begins on April 7, 2002.