



NRAO NM NEWS

Vol. 7 - Issue 5 - OCTOBER 2005

NOTES FROM THE AD

As we move into October, it seems appropriate to take note of a VLA anniversary. I have been reading the "VLA Completion Report" from 1982, and two items leaped out at me. The first item is that this month marks the 30th anniversary of the first astronomical source observed with the VLA on the Plains of San Augustin, when Antenna 1 made a total power measurement of Virgo A. (For those who like to pause while walking up the stairs in the VLA control building, you can find a signed recording of this first observation.) The second item is that the VLA Completion Report includes a table showing the number of personnel employed in operating the VLA every year up until 1980, and distinct from the personnel employed in construction. In general, this table shows that we now operate the VLA with fewer people than we did in 1980, in spite of the fact that we have several additional frequency bands and some aging equipment. This lean operation is a tribute to all the people who work on the VLA, and who maintain it so that it can be kept reliable with our present workforce.

There are a couple science items of note this month. Over the last several months, the VLA has played a significant role in identifying the radio afterglows of the "short" (less than 1 second in duration) category of objects undergoing gamma-ray bursts, which has led to confirmation that these events are caused by merging neutron stars. This solves an astronomical mystery that has existed for more than 30 years. The VLA role has been enabled by the flexibility of the VLA and by the ability of VLA Array Operations and the telescope schedulers to respond very rapidly to the gamma-ray bursts.

The VLBA recently has been used to measure the distance and speed of a neutron star that is moving through our Galaxy at over 600 miles per second, nearly 100 times the speed of the Space Shuttle. In the 2.5 million years since it was formed, this pulsar has moved about one-third of the way across the night sky, relative to the stars. Further information is available in a press release on the NRAO homepage at <http://www.nrao.edu/pr/2005/fastpulsar/>

Thanks to all of you for enabling the important science from our telescopes, and Happy 30th Birthday to Antenna 1!

Jim Ulvestad

WELCOME

Justin Dressel, ALMA; James Aguirre, Remote Jansky, (Colorado), Katie Devine, Predoc, David Meier, Jansky Postdoc, DSAA; Anthony Sowinski, Robert Stupak, Operations; Susan Loveland, Rodger McIntyre, EVLA; Kenneth Klose, VLBA-St. Croix.

VLA SITE

End of Summer Party: For ten years, at the end of every summer, the ES Division has hosted a VLA style pit Bar-B-Q lunch. The lunch is hosted in appreciation to all NRAO employees who make possible, the many accomplishments at the VLA.

The guest list includes NRAO employees, VLA retirees, and neighboring ranchers. This year's special attendees included Phil Jewell NRAO Deputy Director, Jim Ulvestad NRAO/NM Assistant Director, Mark McKinnon NRAO/NM Deputy Assistant Director, Bill and Betty del Guidice (VLA retiree), Bob and Pat Stidstone (VLA retiree), B.W. and Billie Cox (neighboring rancher), Jack Bruton Sr. (neighboring rancher) and the VLBA site workshop attendees.

Every year the Track Crew prepares the Bar-B-Q and volunteer staff help prepare the rest of the meal, which is then served by the ES Division supervisory staff. Thanks to all the volunteers who make this annual event possible.

Congratulations: Various work groups received special awards. Outstanding Performance awards were received by several ES Division

employees. Additionally, Mark McKinnon presented Star Awards to Jim Gregg, Frank Broaddus, Richard Murillo, Dennis Mobley and Shawn Hughes. Congratulations!

Lew Serna

AVAILABLE RESOURCES FOR NRAO STAFF MyCigna.com

Do you have questions about an insurance claim? Having trouble finding an old Explanation of Benefits for a claim? Do you need a temporary or replacement ID card for your medical insurance? Do you need a prescription refill from Tel-Drug? If you answered "Yes" to just one of these questions, its time for you to set up your secure profile at MyCigna.com. Its easy and takes less than five minutes. Once your profile is set up, you'll have immediate access to your account and other health related information. Go to www.mycigna.com today.

Your EAP - Always There

If you are facing a personal crisis, you don't have to bear it alone. Your EAP is available 24 hours a day, seven days a week, 365 days a year. You can get free telephonic counseling, up to three free face to face visits with a counselor (per issue per year) and up to 30 minutes of free legal advise (per issue per year). These are just a few of the services the EAP offers. For more information, visit your EAP online at <http://apps.cignabehavioral.com/home.html> and select the "are you



The National Radio Astronomy Observatory is a facility of the National Science Foundation operated under cooperative agreement by Associated Universities Inc.

a MEMBER?" link. The user I.D. is "NRAO" and the password is "employee."

Allen Lewis

NEW MEXICO SAFETY COMMITTEE

As we all know, safety is a primary concern in the workplace. I would like to invite anyone who is interested to volunteer to join the NM Safety Committee. It is particularly important to have each major group in the observatory represented. At present, ALMA is one of the groups which is not represented. If you have a safety concern, send e-mail to safety-nm@nrao.edu. This will go to a MailMan list to which you can subscribe. It is a monitored list so there will be no spam.

To subscribe go to the NM safety web page

<http://www.nrao.edu/internal/safety/SocSafetyComm/>

where you can follow a link to the subscription page. The monthly minutes are posted from this page as well.

Eric Greisen

SAFETY CORNER: Making our Work Areas Safer

Fire Extinguishers: October is National Fire Month; Good housekeeping and fire prevention go hand in hand for obvious reasons, not only at work but in the home and office as well. Fires can start anywhere at any time. It is important to have access to a fire extinguisher, know how to use one and which extinguisher to use depending on the type of fire. There are three basic types of fire extinguishers (water, carbon dioxide and dry chemical) and three basic types of fires (ordinary combustible materials, flammable liquids and electrical fires).

On class A fires, (wood, paper, rags and other ordinary combustible materials) the recommended extinguisher is water or dry chemical.

On class B fires, (flammable liquids, oils and grease) the recommended extinguisher is dry chemical, foam or even carbon dioxide.

On class C fires, (electrical fires) the recommended extinguisher is carbon dioxide, Halon or dry chemical.

Fire extinguishers are easy to use, if you remember the word I-PASS.

I – Inspect the extinguisher. You cannot fight a fire with an extinguisher that will not work. So remember to look at the gauges, if there is one, and check to be sure it is charged.

P – Pull the pin. Each extinguisher has a pin that will prevent it from discharging accidentally.

A – Aim at the base of the fire.

S – Squeeze the trigger.

S – Sweep from side to side.

If you use a fire extinguisher on a fire and the extinguisher is spent before the fire is out, you should evacuate the area. Always remember that your life comes first.

A fire extinguisher is our first line of defense in the event of a fire. They warrant a periodic and thorough inspection. They should be kept clean and accessible to eliminate lost time when one is needed. At work you should take the time to check the location of the extinguishers in your work area. At home, check to be sure extinguishers are in working order. Everyone in the home should know how to use them and where they are located.

Do not be afraid of a fire extinguisher. It could save your life, the life of a family member and possibly your home.

Keeping a fire extinguisher in your car is a good idea. Car fires can also start anywhere and anytime.

Smoke Detectors: If smoke detectors were installed in every home, 3,000 lives would be saved annually! Smoke detectors warn you of a fire in time for you to escape, but only if they work properly. Install on each level of your home and outside sleeping areas. Test them monthly, replace batteries once a year or whenever a detector chirps to

signal a low battery. Don't ever borrow detector batteries for other uses—a disabled smoke detector cannot save your life or the life of a family member!

James B Sullivan, NRAO Safety Officer

OCTOBER 2005 SKIES

Psssst! Wanna hear a good one? Mars is coming! Tell all your friends! "Mars the Magnificent" will be the highlight of this jam-packed month full of both astronomical sights and events.

The monthly parade of planets leads off with dazzling Venus, hanging like a jewel, in the early evening sky. During the month it will climb slightly higher in the southwestern sky and on the 16th the bright star Antares will be just one and one half degrees south of the planet.

Saturn will rise around 2:00 a.m., at the beginning of the month and with the end of daylight savings time, it will rise around 11:00 p.m., at month's end. The best viewing of Saturn will still be in the early morning hours.

Mars is already a splendid sight rising around 9:00 p.m., in the eastern sky and will reach opposition by the end of the month. On October 29th, the Planet will be at its closest point to the Earth. At that time it will be both brighter, magnitude -2.3, and larger in small telescopes, 20.2 arc seconds, than it will be again for the next 13 years! While Mars was actually closer in 2003, this year we, in the northern hemisphere, will have better view as Mars will be as high as 66 degrees above the horizon. This translates to excellent viewing through a more stable portion of the atmosphere.

On Friday 28th, the New Mexico Tech Astronomy club will hold a "Mars Party" beginning at 8:00 p.m., at the Etscom Campus Observatory to celebrate the close approach of the "red planet" and with just a little Halloween silliness thrown in for good measure.

As mentioned earlier, **Daylight Savings Time ends on the 30th. Don't forget to "fall back" and set your clocks back one hour.** You'll get an extra hour of well deserved rest after a busy month of late night star gazing and sky watching!

The moon will be new on the 3rd, first quarter on the 10th full on the 17th and last quarter on the 24th. The moon will cause two eclipses this month! The first is an annular solar eclipse on the 3rd that will be viewable from Europe, Africa and South Asia. Two weeks and a half orbit later we, in western North America, will be able to view a partial lunar eclipse on the morning of the 17th. Unfortunately only 7% of the Moon will be hidden by the Earth's umbral shadow. The maximum darkness will occur at 6:03 a.m. local time.

Come see our new facilities. To reach the Campus Observatory take Canyon Road to the 4-way stop just past the golf course. Turn right on Buck Wolfe Drive and follow the signs.

Jon Spargo, New Mexico Tech Astronomy Club