

AOC NEWS



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WELCOME ABOARD

Administrative Services, Karen Sandoval; ALMA Computing, Sohaila Roberts; ALMA Electronics, Michael Le Blanc, Richard Scott and Selina Sutton; Array and Correlator Operations, David Pierce and Ryan Johnson; Basic Research, Co-op, Reydelle Tapia; and, in EVLA Electronics, John McClendon.

NOTES FROM THE A.D.

Many of the residents of the Array Operations Center, may have noticed a progressive tightening up on office space over the last year. We expect a significant influx of employees over the time period from 2001 through about 2004, primarily due to the EVLA, ALMA, and Data Management projects. With this in mind, Mark McKinnon chaired a committee in early 2002, to assess our space needs and make recommendations. One of their findings was that we should expect 28 additional NRAO employees in Socorro in 2002, and a total increase of 40%, from 165 to 230, between the end of 2000 and end of 2004. A summary of the recommendations of the committee can be found at:

<http://www.aoc.nrao.edu/epo/ad/space.html>

It was expected that the AOC could accommodate the growth through the end of 2002, and that other arrangements would be necessary for the expected growth, beginning in 2003. Uncertainty about budgets has precluded us from making any significant progress on acquiring additional space before now, but active planning and discussions with New Mexico Tech are now in progress, with hopes of having additional space available by the end of summer. This will mean an additional space crunch, when our summer students arrive in May and early June. I hope everyone will be patient with the situation, which is actually a sign of a healthy organization with a variety of important new activities. We will continue to do our best to satisfy the diverse set of requirements for the different projects as well as for ongoing operations.

At the VLA site, we also are running into a real space problem for activities such as vehicle maintenance and warehousing, with the increased project activity that must be supported. We are attempting to find the funds for additional work space at the VLA, and hope to improve the situation within the next 12 to 18 months. The good news is that we have just leased an additional bus, which will provide the capability we need to get our employees to work at the VLA site, and keep both projects and operations moving forward.

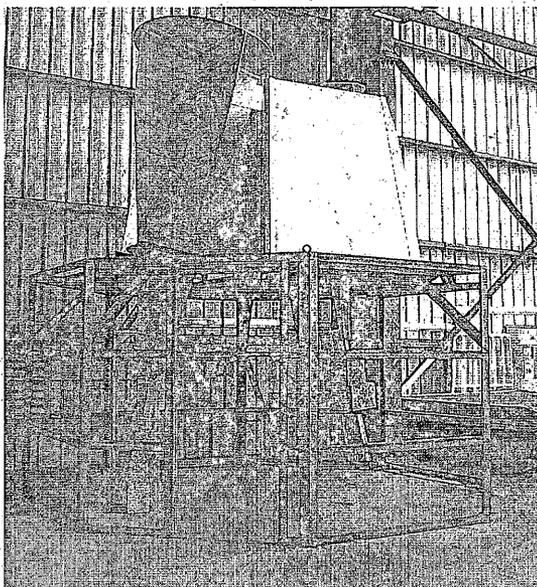
Thanks to everyone for your understanding, even though your patience may be taxed!

Jim Ulvestad

EVLA NEWS

The design for this Feed Tower and vertex room mockup was done by Jim Ruff and Emma Baca. The fabrication was carried out by

welders, Mel Peralta and Steve Aragon, from ES Division. The mockup was built to ensure the proper placement and fitting of the new electronics and feeds that will be housed in a new EVLA Feed Tower.



EVLA Feed Tower and Vertex Room Mockup

Life size mockups of the feeds and receivers also were built. Note the size of the new L-band feed and receiver, which almost reaches the Vertex room floor (left side, the S-band is to the right). Improvements for the final design are already in the works for the actual feed cone that will be installed in the first antenna. The new Feed Tower installation will

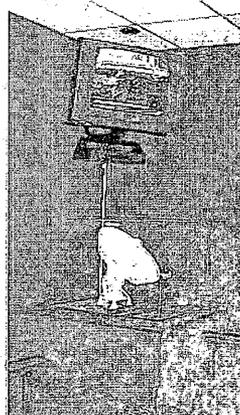
begin with the EVLA Test Antenna (Number 13), when it enters the Antenna Assembly Building for EVLA outfitting, around April 2003.

ew Serna

NEW EXHIBIT AT VLA VISITOR CENTER

Have you ever seen one of the VLA transporters move an antenna? If not, you now have the opportunity to at least see it on DVD! A new exhibit at the VLA visitor center features a five-minute captioned presentation of an antenna move. It was filmed by Michael Mideke, a Magdalena resident, who generously donated the transporter footage for the new Visitor Center video, "Journey of Discovery." The DVD plays on a television mounted above the antenna/transporter model in the southeast corner. "Thank you," to the transporter, track and antenna crews, for allowing the filming and helping us fill in the details!

Robyn Harrison



TV Monitor shows antenna move

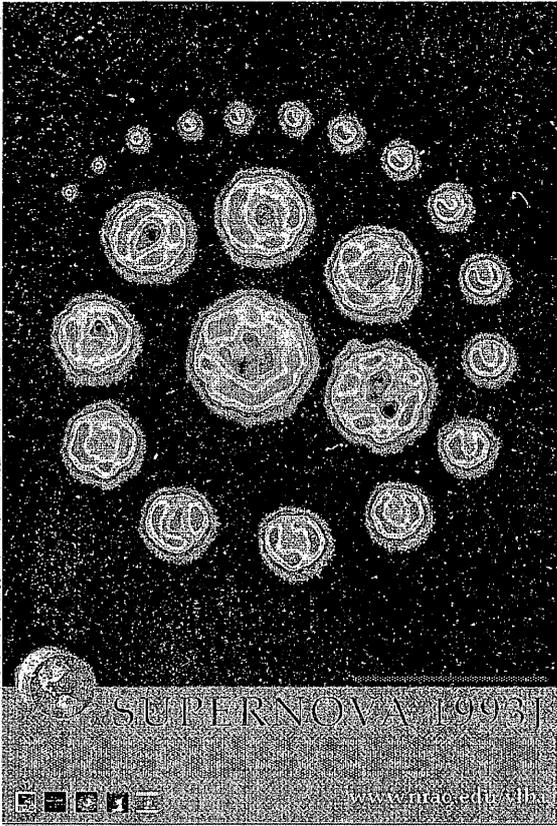
PHOTOGRAPHS NEEDED!

The Visitor Center gift shop needs to restock its VLA antenna postcard supply, but alas, we have none of the original photographs. If anyone has a photograph (preferably digital) they would like to submit as a postcard possibility, please send it to rharris@nrao.edu or leave it on disk or CD in her mailbox. You won't be getting rich as there is no compensation, but you will get the pleasure of knowing people you never met are sending a photograph with your credit line to their friends around the world!

Robyn Harrison

NEW VLBA POSTER

The first poster offered for public sale with a VLBA image is now available, at the VLA and Green Bank Visitors' Centers.



Under the direction of Jim Ulvestad, a committee was formed to create the poster, for distribution at the January 2003 AAS Meeting. The poster turned out so well, that it was decided to also offer it for sale.

Featured on the poster is Michael Rupen and collaborators' sequence of images, showing the first seven years of the explosion of Supernova 1993J, in the spiral galaxy M81, some 11

million light-years from Earth. The VLBA has the ability to directly image the explosion as it expands, from a month after the explosion, to years, or even decades later, until it fades from view.

The poster is on display at the AOC Reception Desk and may be purchased from Robyn Harrison. The proceeds will go toward the development of the VLA Visitor's Center.

Many thanks to all who worked so hard on this poster: Mark Claussen, Dave Finley, Robyn Harrison, Kristy Dyer, Peggy Perley, Travis Rector, Jon Romney, Michael Rupen, Greg Taylor and Joan Wrobel.

Pat Van Buskirk

NEW REVISED TRAVEL POLICY

A revised travel policy was recently released by NRAO. It is available on the NRAO web site Administration/Business Office page.

<http://www.nrao.edu/internal/business/travel.shtml>

In addition to increases allowed for personal vehicle mileage and per diem, the highlights of the policy revision were listed in an email message to all employees on 12/10/02. Other notable changes are new values for

non-public lodging reimbursement, and language stating that when renting cars, use of a credit card other than the NRAO corporate Diner's Club may not provide adequate protection for the Observatory. **NRAO assumes no responsibility for payment of damage claims during official business travel when the Diner's Club card is not used by the traveler to rent the car.**

Please see the Business Manager (Skip Lagoyda) if you need to obtain an application or explanation of benefits for the Corporate Diners Club credit card.

Skip Lagoyda

FEBRUARY SKIES

A good deal of the action in February, is early in the month. Within the first four days, Mercury will display its greatest illuminated extent on the 1st and its greatest elongation from the sun on the 4th. Mercury is found near the horizon, to the left and below Venus, about 45 minutes before sunrise during the first week.

Venus will continue to dazzle us in the early morning hours. Just after Venus rises turn and look to the west, to compare it with the setting Jupiter. Venus will appear several times brighter. To the upper right of Venus is the much dimmer Mars. As winter leads us to spring and then to summer, Mars will grow steadily brighter. During this summer, Mars will be at its closest to Earth in 400 years! Nearby to Mars is its rival, the bright red star Antares, which is the fifteenth brightest star. Compare 4000-mile diameter Mars, with 600 million-mile diameter Antares!

Jupiter and Saturn will continue to dominate the night sky for the whole month. On the night of February 1-2, Jupiter reaches opposition rising at about the time of sunset, is brightest at midnight and sets at about sunrise. The Moon will be new on the 1st, first quarter on the 9th, full on the 16th and last quarter on the 23rd.

Midwinter is also the time of year when we, who live in central and southern New Mexico, can see an object that our neighbors to the north cannot. Following Orion is the constellation Canis Major which contains Sirius, the brightest star you can see from Earth. However, do you know the second brightest star? Its name is Canopus and it is in the constellation Carina. Go out in the evening when Sirius is midway between east and west, currently around 10:00 P.M., and find a clear spot that will afford a good low view of the southern horizon. There, just a few degrees above the horizon, Canopus will be shining brightly while displaying many colors as its light is distorted by the Earth's atmosphere.

The first time I saw this dazzler I thought it was a plane on approach to "Socorro International Airport" until I realized what it really was. However, in this case timing is everything as Canopus is only above the horizon for a couple of hours. This is a sight that few in the Northern Hemisphere get to see. During the early days of the space race, Canopus gained a measure of notoriety. Most of the deep space spacecraft launched by NASA, had a Canopus tracker, which maintained the orientation of the spacecraft by locking onto this star.

If you have trouble finding it, we will offer you some additional help. On February 14, there will be a star party at the Etscom Campus Observatory, beginning at 7:00 P.M. After you have given your "Valentine" some flowers, candy, or perhaps sprung for a nice dinner, promise your "Sweetie" the stars. Come to the Observatory and we will help you locate Canopus! As always, follow Canyon drive past the golf course Pro-Shop, turn right onto Buck Wolfe Drive and follow the signs to the Etscom Observatory.

Jon Spargo, New Mexico Tech Astronomy Club