

WS (GRBK)

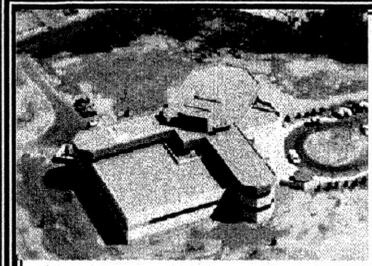
PROPERTY OF

THE U.S. GOVERNMENT

SEP 16 2002



# AOC NEWS



Vol. 3 - Issue 1 / February, 2001

## ASTRONOMY IN THE NEWS

A number of events concerning the Expanded VLA (EVLA) and related topics took place at the American Astronomical Society (AAS) meeting during January. This meeting was held in San Diego, in conjunction with the meeting of the American Association of Physics Teachers, from January 8 through 11, 2001. On January 8, the subject of the first press conference of the meeting was an exciting new (VLA + Pie Town) image of a gas accretion disk around a newly forming massive star. At this conference, Mark Claussen described the Pie Town link, and Debra Shepherd described the key scientific result.

Figure 1 is an image of the 7 mm (Q band) continuum emission surrounding the massive young star G192.16-3.82. The star is 6,000 light-years distant in the constellation Orion. The image was made using the VLA radio telescope connected by a fiber-optic link to the VLBA Pie Town antenna located 52 km away from the center of the VLA. The size of the young star and its surroundings is compared to our own Solar System. The full press release is available at:

<<http://www.aoc.nrao.edu/pr/bigysodisk.html>>

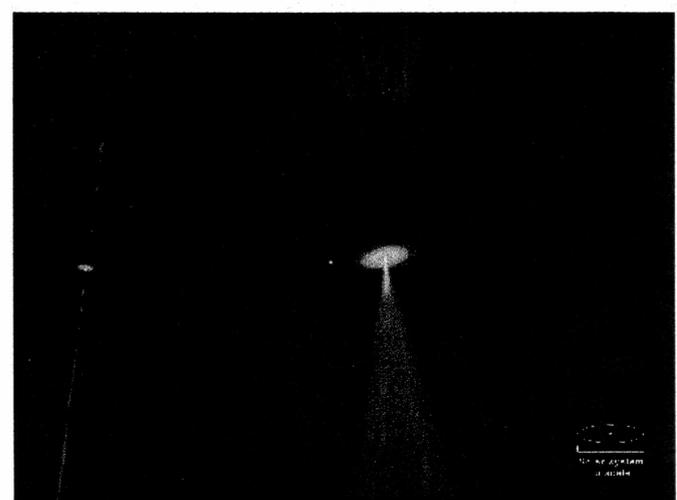
On January 10, another press conference featured representatives of the Canadian National Research Council and Canadian Astronomical Society, as well as Miller Goss and AAS President Anneila Sargent. This conference was held in conjunction with an event on the same day in Ottawa, where the Canadians announced their intention to participate in both ALMA and the EVLA, as well as the formalizing of the North American Partnership in Radio Astronomy between Canada and the U.S. Later the same day, a special oral session on the EVLA took place; at this session, the technical, scientific, and computing aspects of the EVLA were presented to about 100 members of the astronomical community. Throughout the week,

posters were presented by many students and educators who worked at the NRAO sites last summer. Finally, four special NRAO exhibits were presented, focusing on the EVLA, the Green Bank Telescope, ALMA, and AIPS++.

New NRAO brochures describing the astronomical capabilities of the VLA and each of the new telescopes were distributed to booth visitors, including both educators and astronomers. Thanks to all those who enabled the instrumental capabilities and visions, as well as the scientific results that were presented.

Jim Ulvestad

Figure 1



**ARTIST'S CONCEPTION** of the G192.16-3.82 system observed with the Very Large Array radio telescope. The massive protostar is shown with its accretion disk and outflow. The accretion disk is about the size of our Solar System. The larger gas torus surrounds the protostar and its nearby companion. A "neighbor," lower-mass protostar is at left.  
**CREDIT:** Boris Starosta, NRAO/AUI/NSF.

## CHRISTMAS ADVENTURE

Buck Island is a short distance across the tropical turquoise water from the VLBA antenna at St. Croix. You can make out the trees and bushes and see the waves breaking on the beach while standing just outside the control building door. The island is just a semi-arid uninhabited hill sticking up from the Carribean Sea, but underneath the waves off shore lies an amazing wilderness of brightly colored fish, underwater plants waving slowly in the currents, and

colonies of "brain" corral growing on rocks only a few feet below the surface. Between the rocks are expanses of sand that can be seen from an airplane, even at 33,000', through the clean, clear water. Before leaving office, President Clinton declared Buck Island a National Monument because of the corral reefs.

However all is not peace and happiness in America's Paradise. Corrosion from the salty air threatens every unistrut, steel cabinet, gate hinge, motor commutator, nut, and bolt on the antenna which is located only a couple of football fields away from the shore. The corrosion weakens and then the hurricanes tear

away. Even though the eastern end of the island where the antenna is located is semi-arid, weeds jump out of the soil and vines threaten to tear down the fencing. Green moss grows on shaded parts of the structure and this writer even found a frog living just outside the vertex room door.

This year has been especially difficult for the antenna because of the reduced staffing during John William's tragic illness. Mike Burgert, Mark Hoffman, Paul Johnson, Jim Oty, and Bob Sanderson all traveled to St. Croix to spell Herb Winchell, the remaining site tech. The visitors put in a lot of work. Long, written reports resulted from the visits and an extensive

task list remains to be accomplished. Then Herb retired just before Christmas leading to my visit to help the brand new site tech, Tazewell Reed, over the holidays.

Bob Sanderson told me he didn't even have time to "put his face in the water" while he was at St. Croix, so I feel a little guilty; but I couldn't resist the opportunity to snorkel at Buck Island. It's just like a PBS TV special. And many thanks to Tazewell Reed and his gracious wife Janie for taking me to the Island!

Clint Janes

## VLA VISITOR CENTER

Some changes are on the way for the VLA visitor center, and we need your help. A committee (Robyn Harrison, Dave Finley, Mark Claussen, Frazer Owen, Lew Serna, Guy Stanzione, Greg Taylor, Jim Ulvestad) has been formed to facilitate the building of a new visitor center. In the interim, we will be using the current visitor center to prototype and test new exhibits. This is where you come in. All of you have different experiences and views of what we actually DO at the VLA. The committee is seeking your suggestions for exhibits, whether it be just an idea scribbled on a piece of paper, or a full blown sketch and narrative for a display, static or interactive, visual, auditory, and/or tactile. Send your ideas to Robyn Harrison at the AOC, or via email at <rharriso@nrao.edu>

Meanwhile, we hope to have more and bigger news in the next issue.

Robyn Harrison

## CONGRATULATIONS

Dick Sramek, appointed Local ALMA Head with overall responsibility for ALMA activities in Socorro; Jim Ulvestad appointed Deputy Assistant Director for Socorro Operations, responsible for Scientific Services, Array Operations, Computing Division, Peggy Perley, new Division Head for VLA/VLBA Operations and Joan Wrobel who has joined the VLA/VLBA Scheduling Committee.

## EARLY START

Do you have children who are planning to head off to college? Don't go into debt, start saving today. The average annual total cost for a four-year college, including tuition, fees, room and board, transportation and personal expenses is just over \$13,000. High-end private universities cost over \$30,000. These

figures are rising at an average annual rate of about five percent.

NRAO offers the children of employees, who are high school seniors, the opportunity to apply for the AUI Trustees Scholarship at the beginning of each school year. The amount awarded is \$3000 per year for four years. There are other forms of financial aid which can also help offset a portion of college expenses for some families, but 60 percent of financial aid is in the form of loans. These options are a great way to defray costs, if your child is able to obtain them. However, we don't have to depend on scholarships and financial aid alone.

Need a plan? One option to consider is the Qualified State Tuition Program (QSTP) or 529 plan. It is a state sponsored savings program focused on helping families meet higher education expenses. Some of the benefits offered through a 529 plan are tax advantages, flexible beneficiary designation, broad use of assets, penalty-free withdrawals, plus more. Other advantages include, diversified investment options, high or low contribution options and low fees. For more information on the 529 plan, visit [www.tepnm.com](http://www.tepnm.com), call 1-800-499-7851 or email your questions to [planhelp@tepm.com](mailto:planhelp@tepm.com).

Human Resources Office

## ELECTRONICS

Steve Durand has agreed to complete implementation of Mainsaver. So far, he has developed Infomaker to generate reports from Mainsaver. John Hughes and Steve Durand are working on setting up a long list of reports that have been requested.

Assisting the Electronics Division is Diana Guzmán, an electrical engineering student at Tec de Monterrey in Queretaro, Mexico, and a visiting student at NM Tech. She is working on several assignments for Electronics such as establishing MSDS access via the NRAO Web page.

Clint Janes

## MAIL TO NMSTAFF@NRAO.EDU

NRAO computer policy requires individual users to act responsibly and to respect the rights of other users and the integrity of computing facilities and related resources at the NRAO and elsewhere. The content of email, of messages posted to news groups or mailing lists, and of web pages hosted on the NRAO computer facilities can all be identified as originating from the NRAO and may therefore be perceived as representing the Observatory. It is therefore necessary to apply appropriate standards of courtesy and relevance to the NRAO mission in all such communications.

The Email Alias <nmstaff@nrao.edu>, is a mail list that reaches every employee based

in New Mexico. There are others that can reach all NRAO staff. Employees are reminded that the uses of these official NRAO e-mail listings, are for official and authorized Observatory business only and should not be used for personal or private purposes.

If you have any questions regarding these mail listings or our Computing Use Policy, please refer them to your supervisor or the Personnel Office.

Lew Serna

## REMINDER TO ALL USERS

The following guidelines apply to all users of GSA and NSF vehicles.

- Refuel the vehicle for the next user
- Report mechanical problems promptly
- Smoking in vehicles is prohibited
- Only employees & official visitors authorized to travel in GSA & NSF vehicles. No family members allowed.

## NRAO FORMS AVAILABLE ON-LINE

Can't find a Travel Expense form to get reimbursed for your recent trip? Need a Pay Order? A variety of NRAO forms are accessible on-line at URL: [nrao.edu/internal/fiscal/forms.shtml](http://nrao.edu/internal/fiscal/forms.shtml) Best of all, these forms are the latest version available. These forms can be printed on your local printer and some forms are "active" and can be filled out on-line before printing.

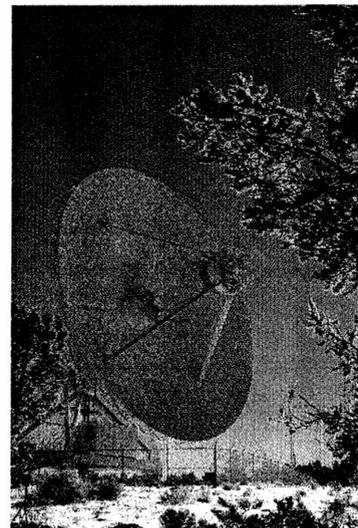
Available now are:

- Travel Authorization
- Travel Expense Voucher
- Federal Tax Withholding - W4 for 2001 Pay Order
- Direct Deposit Authorization
- Mileage Reimbursement
- Non-NRAO Employee Travel Authorization & Expense Voucher

We are continuously working to add new material, so please check back if the forms are not available.

Don Welty

## WINTER WONDERLAND



Thank you Kelly, for sharing this photograph of the VLBA Pie Town station during a recent snow storm.

Photo courtesy of Kelly Gatlin