

# AOC NEWS



Vol. 2 - Issue 4 / August 2000

## FAREWELL

Heron Plaza has been in Socorro this summer, to take an engineering course at NM Tech, as part of an exchange program with the Instituto Tecnológico y de Estudios Superiores de Monterrey, Campus Queretaro (ITESM) ([www.gro.itesm.mx/english/](http://www.gro.itesm.mx/english/)). Heron is studying at Queretaro, for his professional degree in EE and plans to graduate in December, 2001.

Next week, Heron returns to Mexico, after two months of helping Greg Chavez, and other Front End technicians mostly with the Q Band receiver build. We hope that Heron's experience at NRAO helps him with his classes coming up in antennas and RF. May he have a safe journey to his home in Cortazor, Guanajuato, Mexico. Heron's help is especially satisfying in view of Mexico's financial assistance to the Q Band project.

C. Janes

## WELCOME

This year's Summer Youth Employment Program participants at NRAO: 1<sup>st</sup> session - June 6-July 7, 2000 - Andrew Claussen, Michael Perley and Shanna Romero

2<sup>nd</sup> session - July 11-August 11, 2000 - Edward McGinnis, Chris Sramek and Joseph Ulibarri

New NRAO employees David King, AIPS++, Colleen Gino, Array Operations, Donnie Jenkins, ALMA, and joining us for his 20<sup>th</sup> summer at NRAO, Pat Palmer, U Chicago.

## SPECIAL EVENT

Senator Pete Domenici and Dr. Rita Colwell, Director, NSF, will be here on August 23, 2000, to help us celebrate twenty years of observations with the VLA. This event will be held in the AOC

Auditorium beginning at 10:00 A.M.. A complete program for this event will be distributed in the near future.

## EMPLOYEE COMMITTEE

Appointed by Miller Goss, this group (Employee Committee), represents a cross-section of VLA/VLBA groups. Our purpose is be attentive to issues and concerns brought to us by employees and to ensure that the director hears of these concerns with confidentiality assured.

Members are: Tom Baldwin, Marie Glendenning, Ginny Goret, Bill Hancock, Wayne Koski, Patty Lindsey, Godin Otero, Melcolm Peralta, Peggy Perley (Chair), Sheila Reasner, Paul Savedra, Greg Taylor, Boyd Waters.

P Perley

## PLANNING TO TRAVEL?

Selfa Lucero is away from the office for more than a month. During this time, the Reservations office will be handled by Liz Cryer. Liz has trained in this position for several weeks. She is ready to handle your needs for business travel. Please help out by planning your travel early and explaining your requirements well. If you can't reach Liz at the usual Reservations office, she may be at the front desk. In the event of a travel problem after working hours, Liz should be contacted first to resolve the problem. If she is unavailable, contact another reservations person on the normal call out list.

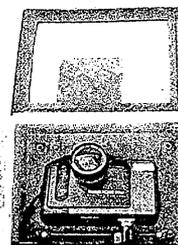
S Lagoyda

## VLBA SITES IN REVIEW

There are currently four VLBA sites equipped with web cameras, but soon the entire VLBA will be viewable on the World Wide Web. The first VLBA site with a video camera was North Liberty, using a system designed by Jack Meadows. This system worked, but had a few problems with the software and hardware. After months of trial and error, a less expensive, much higher quality solution has been found.

The Web camera used a video camera

and a frame grabber, but it occurred to me that a digital camera would serve the same purpose when not in use for troubleshooting. There have been several instances where a digital camera could have saved a lot of time in repairing, troubleshooting, and communicating problems with the AOC. So, in researching options, a program was found that will enable the use of a digital camera as a web cam. This camera system can solve many problems. Each site will have a camera to use for sending pictures to the AOC, and Array Operators can use snapshots from the camera to monitor the antennas, check weather conditions and snow depths. This could also be a great opportunity to enhance the VLBA web site. The plan is to enhance the VLBA with real-time web page images of all ten VLBA antennas, and then, by simply clicking on the desired antenna, it would provide a larger view. This would allow anyone to view any one of the antennas and track its movements.



The cameras are Kodak digital cameras with a wide-angle lens added. Because of the antenna size, it took many trials before finding the right combination of equipment to capture the entire antenna, as well as maintain a high-resolution image. The cameras will be mounted on the control buildings in a watertight box and will also have an automatic defroster to keep the glass window clear of frost

and snow. The camera will be easily accessible, and easily removed for use in other applications. This project is in the final stages, and hopefully the cameras will be ready to be shipped to all VLBA sites soon.

Mike Burgert

## ADVANTAGES OF DIRECT DEPOSIT

This feature is offered to all NRAO employees. Banks, savings and loan associations and credit unions are

eligible to accept such deposits. What do you gain by participating in the Direct Deposit system?

**Peace of Mind** - no worries about receiving your payment on time, delivery delays or having your check lost or stolen.

**Prompt Payment** - You have access to your money earlier, since the deposit is credited on the payment date, eliminating delivery delays.

**Convenience** - Eliminate the necessity for special trips to pick up and deposit payments.

**Freedom** - Payment automatically deposited to

your account, whether you are on vacation, traveling or ill.

**Time Savings** - Allows more time to do the things you enjoy since you don't have to make a special trip to deposit your check.

**Ease of Savings** - If requested, payments can be directed to more than one account (savings, checking, etc.)

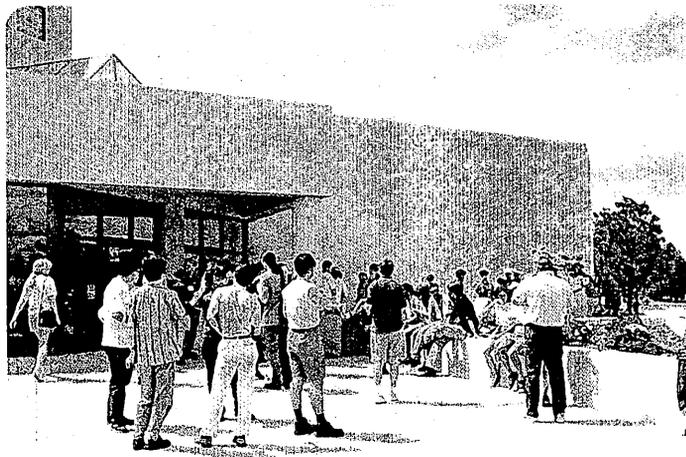
Contact Nancy Ortiz, ext. 7444 or Judi Berrong, ext. 7439, to sign up or if you have questions.

D Welty

## SEVENTH SYNTHESIS IMAGING SUMMER SCHOOL

The 7th Synthesis Imaging Summer School, sponsored by NRAO and New Mexico Tech, took place from June 20 through June 27, 2000, in Socorro, NM. This was the largest school yet with 148 participants, representing 17 countries. Almost half (69/148) came from outside the U.S. including two from Argentina and five from Australia. China, Taiwan and Japan were also represented, but the largest group (besides U.S.), was the U.K. with 14. Most participants were graduate students in astronomy, but there were also postdocs, faculty, staff and a number of NRAO summer students.

A full week of lectures on aperture synthesis theory and techniques were given, primarily by the NRAO staff, but also by staff from the Naval Research Labs (NRL), Caltech and MIT. The lectures were held in Workman 101, at New Mexico Tech.



This photo shows some of the participants milling outside of W101 during an afternoon break. Practical tutorials demonstrating data collection, calibration and imaging of both VLA and VLBA data were given at the AOC on Friday, June 23rd. These tutorials occupied over 50 workstations and kept 23 members of the scientific staff (just about everybody), busy on that Friday. The school dinner was a barbecue in the New Mexican style with plenty of green chile to go around. It was held on Friday evening on the lawn just north of the Macey center. Demonstrating that they were taking the lectures to heart, some participants designed and constructed the Very Corona Array. [see photo at top of next column]

The weather that evening was just about perfect and

led to an impromptu frisby game after dinner.



Marian Soida /Jagiellonian Univ., Poland and Miller Goss view the Very Corona Array

On Saturday morning most school participants went on a hike in the Bosque where those within earshot of Eric Greisen saw a wide variety of birds. That evening a star party was hosted by Dan Klinglesmith at the Etscorn Observatory. A large fraction of the school participants made the hike from their hotels to the observatory and were impressed by our dark skies. Another high point of the workshop was the VLA tour on Sunday, June 25th. Featuring an antenna climb and a "behind the scenes" tour led by volunteers from the scientific staff and with area experts Jon Thunborg at the barn, Bob Broilo at the camtrack, Bob Hayward and Clint Janes showing off VLA antennas, Dan Mertely talking about front ends, Leon Abeyta advertising fiber optics for the VLA Expansion, Terry Cotter describing the workings of the D-racks, Mike Revnell explaining the VLA correlator, Terry Bartelt and Jim Nieri explaining operations, and Raul Armendariz describing the workings of our Interference Protection Group. The participants really enjoyed the tour, asking lots of questions and noting on the evaluation forms that it was one of their favorite things about the summer school.

A tee shirt for the school was designed by NRAO summer students Bob Zavala and Ian Hoffman. It features a radio image of Jupiter on the front and signatures of the participants on the back. A fair number of these handsome shirts are still available from Ian or Bob for eight dollars. More information and lots of pictures can be found at the school web page: <<http://www.aoc.nrao.edu/~gtaylor/synth2000.html>>

G Taylor