



NATIONAL RADIO ASTRONOMY OBSERVATORY  
CHARLOTTESVILLE, VA

# THE POINT SOURCE

Volume 9, No. 1

Spring 2003

## OBSERVATORY NEWS

### *An Interview with the New ALMA Chile Business Manager*



The Point Source employee newsletter welcomes Mauricio Pilleux to the NRAO family. On literally the first full day of Mauricio's arrival to the United States, the editor had the opportunity to talk with him for almost an hour. What follows in interview format are just a few of Mauricio's thoughts about himself and his role with the NRAO/ALMA project in Chile, South America.

*PS:* Mauricio, you will be the ALMA Business Manager working in the Santiago, Chile office. What do you see as your role there?

*M:* I'm the local contact for all of the U.S. administrative personnel. So whatever you need on the business administration side of things, I will be your Chilean contact, and I will have to carry out duties according to NRAO procedures. So that's a big part of this current visit to all of the major NRAO sites that I'm trying to learn right now. A big part of my job will be to figure out how to combine observatory procedures with Chilean local culture and Chilean law.

*PS:* Tell us about your family.

*M:* I am married and have 4 children, all boys; they are Mauricio age 11, Roberto 9, Guillermo 6, and Fernando 2.

My wife, Gabriela, has been at home with the boys until recently, and she is going back to school to earn a degree in agricultural science.

*PS:* So she wants to be a farmer? Either that or you're going to have a really pretty garden at your house.

*M:* Yes, you could say that (chuckle). A farmer. We live in an apartment in Santiago.

*PS:* You speak very fluent English. Where did you learn to speak it so well?

*M:* First, my parents are both linguists and both full professors at the university in Valdivia, where I was born and raised, which is Chile's most beautiful city. When I was 10 we moved to Pittsburgh, Pennsylvania, because my father had a scholarship to get his PhD. So three years at a young age taught me English, and I've always kept practicing it. I think finally what really established my vocabulary, which is the difficult part, is the year I spent at Rutgers in a post-doctoral program.

*PS:* Tell us a little about your background.

*M:* Well, I wanted to be an astronomer when I was a kid. I went into college to study astronomy and earned a bachelor's in physics and then shifted to mechanical engineering. Immediately before finishing my engineering studies, I had the opportunity to get a Ph.D. in a new materials science and engineering program at the University of Chile.

*PS:* What kind of work have you done that led you to the NRAO and the ALMA project?

*M:* My first opportunity was in a mining company in northern Chile. After this, I went to another company that designed and built a municipal waste transfer station and a landfill in Santiago, which was a \$30 million project that we won in a bid. I was Project Manager, and it was a great experience for me; I got a real feel for projects and business. The next project I worked for was the first Chilean natural gas pipeline. At the end of my work with the gas pipeline, I had the opportunity to go to work for a time with ESO, the European Southern Observatory, in Paranal in the assembly and integration team.

*(continued)*

*PS:* Now we're talking astronomy. Where did you go after Paranal?

*M:* Well after Paranal, I went as Administration Manager into an environmental consulting company and then took a position as an Assistant Professor in the Department of Material Science and Engineering of the University of Chile. And that was my previous job to this Business Manager position. In between those positions, I did a postdoc at Rutgers University in New Jersey. Finally, in January of this year I heard of this opportunity, which was published in the newspaper and I went for it.

*PS:* How did you get to be the Chilean Business Manager for the NRAO?

*M:* Well, it was during all the years working in the private sector that I built a great deal of project management experience, including the business management side of it. So when the position was offered through an ad in the newspaper, I knew it was the job for me.

*PS:* As we wrap up this interview tell us about Chile and its people. Most of us have no first hand experience with the land or the people of Chile.

*M:* Well let me ask you, do you see Chile as a jungle, and the people very informal? It's not like that. We're very European in the sense of how we do business, how you see the people on the street. You can trust the way you do business in Chile.

*PS:* Describe what you mean by very European.

*M:* I mean, in the sense that we had a lot of European immigration, and Chile is also very special in that it's like an island. You have the very high mountains on your east, so it was very difficult to cross them, the ocean on the west and south, and a long and very dry desert in the north - where ALMA is going to be built. Chile has always been very isolated and the only way to communicate before the airplane was by ship, with only small land trade. And when the ships came with foreigners, mostly from Europe with new ideas, they were very welcome into high society. Foreigners are still very welcome in Chile. When you go to there, people will probably have you over for dinner, just to say, "I was with this guy." They'll have "higher status" because of you being their friend. That's still a fact.

## ***NRAO Makes a Good Showing at AAS Nashville***

The spring meeting of the American Astronomical Society was held in Nashville, Tenn., over the Memorial Day Weekend, May 25-29. Though turnout by the astronomical community was lighter than expected, the NRAO still made a good showing, both with a revamped exhibit, and with some outstanding news coverage of recent scientific results.

The new NRAO display featured a very eye-catching, consolidated presentation of our facilities, yet occupied a comparatively modest 2-booth space next to the display by our friends at the National Science Foundation.

Also of special note at the meeting were two press conferences featuring NRAO results.

The first on May 27 announced the findings of what was called a "supernova factory" in an object known as Arp 299, which is a pair of colliding galaxies. Jim Ulvestad presented data from the Very Long Baseline Array, which revealed a newly exploded star, or supernova. In 2002, astronomers used the VLBA and the Green Bank Telescope to find four objects in this dusty cloud that are likely young supernova remnants. When they observed the region again in February 2003, there was a new, fifth, object located only 7 light-years from one of the previously detected objects. More observations on April 30-May 1, 2003, showed that this new object has typical characteristics of a supernova explosion by a young, massive star.

The second press conference was held the next day, and announced the findings of the closest gamma-ray burst (GRB) ever found. Dale Frail presented VLBA data of the object, which allowed the team of astronomers to show that one theoretical model for GRBs can be ruled out. This model, proposed in 2000, says that the radio-wave energy emitted by the GRB comes from "cannonballs" of material shot from the explosion at extremely high speeds. The 'cannonball model' predicted that the radio-emitting object would move across the sky by a specific amount. The VLBA did not detect that motion.

## ***Kathy Robertson - Joins NRAO as New Observatory Librarian***



New to the NRAO in Charlottesville is A. Kathleen (Kathy) Robertson, who was recently appointed Observatory Librarian. Kathy succeeds Ellen Bouton, who stepped down in May to pursue personal interests, but will remain on staff part-time to serve as an archivist for the observatory.

For the past 13 years, Kathy served as the librarian at the Institute for Astronomy, University of Hawaii. Before that she was a subject specialist for a range of science and social science disciplines at the University of Calgary, and served as librarian at two engineering firms in Calgary. In addition, she has worked as a research affiliate at archaeological excavation sites in Sudan, Zambia and Ghana.

Kathy received her bachelor's degree from California State University at San Francisco, and her master's degree in Library Science from the University of California, Berkeley; she also has a master's degree in Arts in Archaeology from the University of Calgary. Kathy is active in the Special Libraries Association, having served in various capacities in both the Hawaiian-Pacific Chapter and the Physics-Astronomy-Mathematics Division. She is also active in the Hawaii Library Association and in ALOHA (Astronomy Librarians of Hawaii Association).

## SITE NEWS

### Socorro

#### **Public Information Officers Succeed in the Long Run and Hit Their Mark**

Although Media Relations and Public Outreach are challenging and often exhausting endeavors, the NRAO's Public Information Officers appear to be up to the task. Aside from running down new and exciting stories about NRAO research, and fighting to ensure the NRAO is well represented in the media, Dave Finley and Chuck Blue do some more serious running and fighting in their spare time.

This past year, Dave Finley completed the Duke City Marathon on September 1, 2002, which was held in Albuquerque, New Mexico. He finished with a very respectable time of 4:34:12. "It was my first marathon after 30-plus years of running," said Finley. "I finally decided to put in the training and 'just do it.'" To prepare for the 26.2 mile (42.1 kilometer) race, the Socorro PIO did a lot of training, including many 40-mile weeks, several 50-mile weeks and a couple of 60-mile weeks in the training phase, and did up to 23 miles in training runs prior to the marathon.

"I had no problems during the race and felt good at the end," he said. "While I have no plans for any specific race, I intend to run more marathons."

Dave's counterpart in Charlottesville, Chuck Blue, competed in the National Capitol Open Taekwondo Championship on March 29, 2003. He competed in the men's black-belt division, taking the second place trophies in both forms and sparring. "I've been doing martial arts

now for about 18 years," said Blue. "It's one of those things that gets in to your blood, so every once in a while you have to compare yourself to the other martial artists to see how you're progressing and where you need to improve." He is now training for the Captain's Cup Tournament, which will be held later this year in Washington, D.C., and hopes to test for his 4th degree black-belt in December.

#### **Searching the Stars for a Cure**



*Co-captains (left to right) Emma Baca and Tami Hale.*

The American Cancer Society sponsors many fund-raising activities for cancer research. One such project is the Relay for Life, a fun-filled overnight activity that mobilizes communities across the country to celebrate survivorship, remember those who lost their lives to cancer, and raise money for the fight against cancer. This is an American Cancer Society signature activity. Over the course of several months, a team works toward a goal to raise \$100 per team member. At the finale of the event, there is an 18-hour relay in which team members will complete a continuous walk/run. During the relay, there are many activities for the entire family. Socorro's relay began on June 13 at 6:00 p.m. and concluded on June 14 at 12:00 p.m.

This year, 30 NRAO-NM employees and relatives of employees formed a relay team. The NRAO-NM team was co-captained by Emma Baca (VLA) and Tami Hale (AOC) and included Bob Broilo, Jon Spargo, Prescilla Mauldin, Ken Lakies, Christine Wingenter, Magdalene Romero, Sheila Reasner, Lisa Hertz, Jason Wurnig, Terry Lopez, Steve Tenorio, Jim Ulvestad, Lisa Foley, Ramon Molina, Joe McMullin, Jon Thunborg, Ed Gray, Paul Savedra, Allen Lewis, Diane Morgan, Tom Morgan, Carl Oler, Ruth Jensen, Kelly Baldwin, Emmy Foley, Jacob Foley, Cathy McQueen and Jan Sramek, with special thanks to Selfa Lucero and Meri Stanley for their support. Over \$2,121 was raised by the team, which was the second largest amount raised by a Socorro team in this year's relay. Team members represented most of NRAO-NM's divisions,

including NRAO-NM's AD, Engineering Services, Computing, Safety, Business Administration, Contracts & Procurement, Fiscal, Array and Correlator Operations, AIPS++, Electronics and Human Resources.

by Allen Lewis

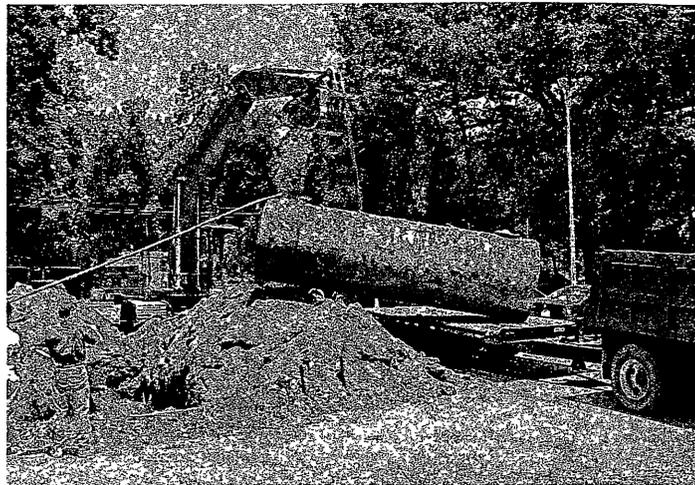
## **The Expansion on Edgemont Road**



Earth is moving, trees are falling, and the landscape around the NRAO's offices on Edgemont Road is taking shape to accommodate the long-anticipated expansion of the headquarters building in Charlottesville.

As part of the preparation for construction, Human Resources, the Business Office, and ALMA personnel moved at varying times to the newly rented quarters at Ivy Commons on Old Ivy Road, not to be confused with the CDL on Ivy Road as the two facilities are about a mile apart.

The early stages have included the preliminary clearing of most of the land scheduled to receive the new structure or new pavement. As part of the challenge of a couple of days of tree clearing, staff at Edgemont Road had to play musical cars, moving their cars back and forth between



lower and upper lots to provide room for trees liberated to follow their gravitational inclinations. Fencing has gone up to help keep people out of hazardous areas, to prevent distracted drivers from inadvertently becoming part of the construction site, and to clearly mark and preserve those trees that will remain part of the NRAO landscape.

The old parking lot lights disappeared but have now be replaced by temporary lights while awaiting the eventual installation of new permanent lights. A switch to temporary rerouted phone and Internet lines took place near the end of the June. Pat Smiley has mapped her invasion of Bob D'Angio's former office second floor office in preparation for the oncoming onslaught into her lower level territory.

After the downward spiral of trees, the next highlight was the upward climb of the underground fuel tank. Dangling from what seemed like a comparatively thin chain, the oversize and overweight cylinder was deftly maneuvered by the crane operator who gingerly laid it onto the waiting truck bed, while several nervous car owners, whose vehicles were just a few feet away, watched. Finally as part of the attempt to maintain parking availability, the ground preparation for an expanded upper lot has commenced.



## **Green Bank**

### **Green Bank Science Center Gears Up for Business**

Though the date for the official dedication of the new Green Bank Science Center is not yet confirmed, the NRAO Education and Public Outreach staff has been busy with the summer tourist season and in adding the finishing touches to the center.

Currently, the new orientation video, snack bar, and gift shops are running. With these added functions, the NRAO has hired additional EPO staff to help with these programs and to handle an expanded tour schedule. Pictured on the following page is the EPO crew.

Emily, Micah Ann, and Dave are our tour guides. Judy, Sara, Melissa work in the cafe, and Susie is the cafe manager. Anna Diskenson is our gift shop clerk. Arlene is our information person, hired by the Pocahontas County Convention and Visitors Bureau, and Steve Hicks is our Exhibit Engineer.



*New EPO crew: Front row left to right, Emily Lacasse, Steve Hicks, Micah Johnson, Bill Saxton, Sara Shinaberry, Melissa Hill, Susie Forbes. Back row left to right, Anna Dickenson, Judy Morton, Cara Rose, Sue Ann Heatherly, Arlene Walton, Ann Smith, Dave Curry.*

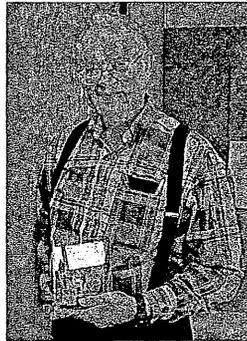
## RECOGNITIONS

### *Distinguished Service Awards*

The Distinguished Performance Awards recognize the Observatory employees who have distinguished themselves by their outstanding contributions and performance in support of the Observatory's mission. Outstanding sustained performance in the fields of science, technology, management, and administration can be recognized under this program. The objective of this program is to recognize outstanding contributions and foster an atmosphere of excellence. Congratulations to these recent awardees:

#### **Barry Clark - Socorro**

Barry has served NRAO selflessly for almost 40 years. He was a key figure in building the VLA, contributed significantly to the VLBA, and is heavily involved in the software design for the EVLA. As VLA/VLBA scheduler he has set the standards for VLA and VLBA proposal review and has personally read and evaluated every single proposal to use these instruments. His accomplishments are truly too numerous to mention.



#### **Toby Mann - Green Bank**

Toby has been insuring the Observatory's payroll is correct and on-time for over 35 years. Prior to automation of the payroll system in the 1990s, Toby Mann manually calculated all payroll records, including taxes, leave and benefits, for over 500 employees in four locations. Often taken for granted and sometimes overlooked, Toby's contributions and tireless attention to her work are essential components of the Observatory's ability to retain the highly qualified and highly motivated workforce necessary for maintaining the scientific productivity of the organization



#### **Marian Pospieszalski - Charlottesville**

Directly responsible for the modern wide-band, low-noise cryogenic amplifier designs which provide state-of-the-art performance for NRAO telescopes Marian Pospieszalski is truly a special asset to the observatory. He is recognized worldwide as the leader in low-noise amplifier technology and is responsible for much of the excellent level of performance of NRAO telescopes.



#### **Patrick Lewis - VLA site**

Pat's contribution to the observatory is exceptional. He has been a significant influence in all of the major site infrastructure projects since the beginning of the VLA. During his tenure with NRAO, he has consistently served all of his superiors with steadfast, unwavering loyalty and dedication. Pat promotes high morale, respects his employees and has earned the respect of all of those who work with him. He continues to provide expert information and sound advice in all issues regarding infrastructure at the VLA site.



## STAR Awards

The Star Award Program enables the NRAO supervisors to recognize exceptional contributions and noteworthy achievements of their employees or groups of employees in a timely manner. Congratulations to the following recent awardees:

### Socorro: (no photo available)

Marlin Smith	Robyn Harrison	Nelson Atencio
Tom Olney	David Finley	Ken Lakies
Martin Lopez	Ramon Gutierrez	C. Eric Carlowe
Godin Otero	Steve Aragon	Pat Madigan
Fred Dunn	C. Eric Carlowe	Garry Morris
Roy Ralph	Paul Dyer	Tom Frost
Bob McGoldrick	Douglas Whiton	Liz Cryer

### Tucson:

Jack Meadows	Mark Sullivan
Stacy Oliver	Wes Grammer



### Green Bank:

Plant Maintenance Division



### Charlottesville:

Mike Stogoski



## Service Award Recipients

NRAO is proud to recognize these valuable employees for many dedicated years of service. Congratulations to each of you for reaching these decadal milestones.

### Charlottesville, VA:

Ronald Harris	30 years
Neil Horner, Jr.	30 years
Patricia Smiley	30 years
Kirk Crady	20 years
Vincent Summers	20 years
Alwyn Wooten	20 years
Darrell Schiebel	10 years

### Green Bank, WV

Donald Gordon	30 Years
Dotty McLaughlin	30 Years
Shirley Curry	10 Years
Max Gum	10 Years
Mike Holstine	10 Years
Carl Stone	10 Years
Alesia Wayne	10 Years

### Hancock, NH

Mark Alfero	10 Years
Doug Whiton	10 Years

### Mauna Kea, HI

Lyman Hancock	10 Years
Anthony Sylvester	10 Years

### Socorro, NM

Eric Greisen	30 years
Peter Napier	30 years
Paul Rhodes	30 years
Bertha Guzman	20 years
John Wall	20 Years
Leon Abeyta	10 Years
Lori Appel	10 Years
Mark Claussen	10 Years
Vivek Dhawan	10 Years
Dave Finley	10 Years
Leonid Kogan	10 Years
Kathy Tate Long	10 Years
Glenn Mauger	10 Years
Jaime Montero	10 Years
Michael Rupen	10 Years
Clifford Serna	10 Years
Patrick Trujillo	10 Years

### Tucson, AZ

Jingquan Cheng	10 Years
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## **AUI Scholarship Winners for 2003**

NRAO congratulates the 2003 AUI Trustee Scholarship winners. These students will each receive an award of \$500 per year to aid in defraying expenses at the college of their choice. Below is a brief biography of each winner. Good luck to each winner in his or her academic pursuits.

### **Samuel Claussen**

Samuel (Sam) is a senior attending Socorro High School. He is the current student body president, a member of the National Honor Society, and plays low brass for the marching, concert, and jazz bands. The tuba is his favorite instrument. He is the current president of the Science Olympiad team, which went to the national competition the past two years, and was runner-up in the New Mexico state competition this year. Sam is a youth tutor at local elementary schools, is active outside of school in his church and is an Eagle Scout candidate in the local BSA troop. Sam is a National Merit Finalist, and plans to attend Western State College of Colorado to major in political science.

Sam is the son of Mark and Sarah Claussen. Mark works as a Scientist in Socorro.



### **Karen Cotter**

Karen is currently attending Socorro High School where she is a member of the National Honor Society, the German Club, and the Science Olympiad Team. She is also a member of the Socorro County Horse Association and is the current High Point Champion for her age group in both the horse show series and the gymkhana series. Karen is a past member of the Socorro Stingrays swim team. In her spare time she enjoys camping, hiking, and socializing. Karen plans to attend Colorado School of Mines studying Chemical Engineering.

Karen is the daughter of Terry and Susie Cotter. Terry Cotter is the LO/IF engineering group leader in Socorro.



### **Vanessa Doyle**

Vanessa is a senior at Socorro High School. In her Junior year, she was awarded a scholarship funded by the U.S. Congress and the German Bundestag to be an exchange student in Germany for one year. Vanessa lettered in soccer, track and cross-country. She is a member of the drama club.



Vanessa worked as an intern for the newspaper, tutored children in English, and coached children in soccer camps. She volunteered with her church group to build houses in Mexico. In her spare time, Vanessa works as a lifeguard and has a part time job working in a café. Vanessa plans to attend the University of Southern California to major in theater.

Vanessa is the daughter of Christine Wingenter, Reservationist in Socorro.

### **Laura Glendenning**

Laura is currently attending Socorro High School. Her extra curricular activities during high school have included the following: National Honor society member, SHS drama student, French and German club member, 4th place in the Freshman State UNM/PNM Math contest, Socorro Teen Court volunteer, SMART Moves and Boys & Girls Club participant/volunteer, Socorro Teen Forum organizer, HTML Support Online volunteer, dance recital participant, and a part-time NM Tech student. She is a candidate in the U.S. Department of Education 2003 Presidential Scholars Program, and she is a National Merit Scholarship finalist. Laura will major in Computer Science at UNM in the fall of 2003 where she has been awarded an UNM Presidential Scholarship.

Laura is the daughter of Brian and Marie Glendenning. Brian is Division Head of ALMA Software and Marie is a Windows System Administrator in Socorro.



### **Allison Norrod**

Allison is a senior at Pocahontas County High School. She is president of the National Honor Society, president of the student council, president of the high school 4-H Leadership Club, member of the community 4-H club, and has lettered in track for two years. Allison served as Drum Major of the PCHS Marching Band this year and for the past two years has participated in the West Virginia All-State Band. She is also involved in numerous community service projects at school and throughout the county. Allison plans to attend Bridgewater College in Bridgewater, VA studying Biology with emphasis toward medicine.

Allison is the daughter of Roger and Kathy Norrod of Arbovale, West Virginia. Roger is an Electronics Engineer in Green Bank.



## HUMAN RESOURCES NOTES

### Your Benefits Did You Know...

The NRAO Human Resources web page has a new page with information you will find helpful. The "Benefits Quick Links" page has contact information for your Medical Insurance, Dental Insurance, EAP, Vision Plan and Retirement. There are links to help you determine how your prescribed medication is classified (tier 1, 2 or 3) and a link to Tel-Drug for prescription refills. You can also find active PDF forms for your Flexible Spending Account(s).

### Health Insurance - New Law in Effect

The first-ever federal privacy standards to protect patients' medical records and other health information provided to health plans, doctors, hospitals and other health care providers took effect on April 14, 2003. Developed by the Department of Health and Human Services (HHS), these new standards provide patients with access to their medical records and more control over how their personal health information is used and disclosed. They represent a uniform, federal floor of privacy protections for consumers across the country. For more information about the Health Insurance Portability and Accountability Act (HIPAA), visit <http://www.hhs.gov/ocr/hipaa/>.

This new standard is in place to protect your privacy. An unfortunate result of a well-intended law is that it has become increasingly difficult for the HR Office to help correct a medical claim that was not paid correctly by Cigna. As a result, the insured needs to take on a more active role in correcting and following a "bad" claim. A helpful tool in tracking a claim is setting up a myCigna.com account. The account will give you access to your claims history as well as the claims history of your dependents. You may order replacement RxPrime cards from the site and research some of your general benefits. To register, go to <https://my.cigna.com/corp/portal/app/member/public/guest> and select "Register now!" It only takes a few minutes to register and you'll have full access in a couple of days.

by Allen Lewis

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Chuck Blue, Assistant Editor  
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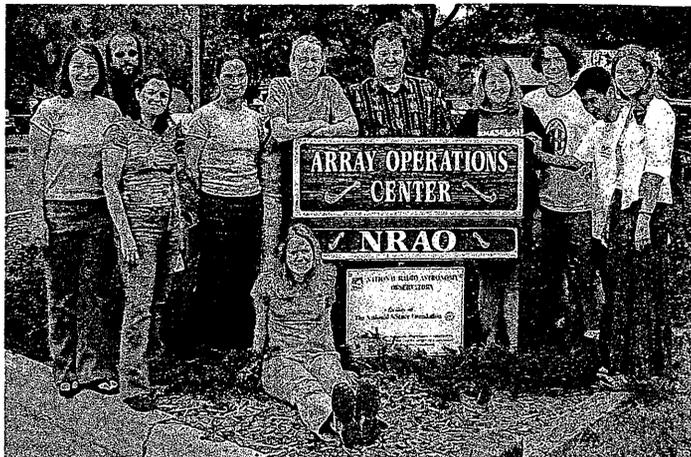
Articles or ideas for the Point Source newsletter are welcomed. If you would like to submit an article, please contact the editor at phone (434) 296-0265 or by email to [rnorvill@nrao.edu](mailto:rnorvill@nrao.edu)

Deadline for article submission for the upcoming Summer Issue is September 1, 2003

NRAO is an Equal Opportunity - Affirmative Action Employer

## SUMMER STUDENTS AND TEACHERS

### Socorro



From left to right: Tiffany Borders, Matt Williams (RET), Itziar de Gregorio-Monsalvo, Alicia Soderberg, Laura Spitzer, Richard Cool, Miranda Nordhaus, Chris Clearfield, Chun Ly, Emily Landes, sitting: Holly Maness, not pictured: Katie Chynoweth, Urvashi Venkata

### Green Bank



From left to right: Justin Atchison, John Cascarilla (RET), Andy Cowan, Rob Sparks (RET), Shannon Wells, Regina Flores, Aaron Geller, Kate Rubin, not pictured: Rohit Gwande

### Charlottesville



From left to right: Porter Thomsen, Alexander Grichener, John Kelly, Lauren Wye, Mehreen Mahmud, Jodie Martin, Chrissy Roark, not pictured: Chaitali Parashare