Holiday Party: Music, Food, Friends, Honors

Winners of the 1993 Outstanding Performance Awards were announced by Peter Gilman. Pictured above are (left to right) Rick Anthes, UCAR president; Peter, NCAR associate director; Chris Davis, winner of the Outstanding Publication Award; Velma Ryan, winner of the Administrative Support Award; Norm Zrubek, accepting the Technical Support Award for Ed Brown; Tomislava Vukicevic, honorable mention for the Outstanding Performance Award with Ron Errico; Howard Hull, one of the team that was awarded the Technology Advancement Award; Ron Errico; Greg Card, another Technology Advancement Award winner; Bob Serafin, NCAR director; and the other winners of the Technology Advancement Award—David Elmore, Kim Streander, Clarke Chambellan, and Terry Leach.

The Columbine String Quartet graced the Mesa Lab lobby with music preceding the all-staff holiday party last Friday, 10 December.
Staff Notes Goes Electronic This Week

Thousands of sheets of paper go into printing Staff Notes each week. We’d like to offer readers another way to get their weekly dose of UCAR/NCAR news. Toward this end, we are introducing an e-mail version of Staff Notes today (see details below). We are also continuing our Gopher access to each week’s Staff Notes text and are working on ways to provide graphics. If you’re a reader from outside UCAR, you’ll find that the electronic versions of Staff Notes will bring you job listings and other timely information more quickly than the print version. If you’re an employee, you can use the electronic versions to save articles on your computer or to access Staff Notes while on travel.

We suggest that you experiment with the modes of delivery and find out which one(s) you prefer. If at any time your work group finds that you need fewer print copies of Staff Notes than before, call the mail room, ext. 8219, and ask them to reduce the number of copies delivered to your mail stop (sorry, but we can’t adjust delivery of print copies on an individual basis). For an example of paper saving, the Cooperative Program for Operational Meteorology, Education, and Training (COMET) has reduced its Staff Notes delivery from 30 to 3 copies. These are kept in a central location for staff to take and read as they like, to be supplemented by electronic access.

Feedback on distribution or on any other aspect of Staff Notes is always welcome. Send your comments to Bob Henson (FL3, ext. 8605, bhenson@ncar.ucar.edu). We ask you to bear with us as we fine-tune our electronic distribution and try to avoid potholes on the information superhighway. Thanks for your patience. •BH

Staff Notes by E-mail
Anyone inside or outside UCAR can now receive text from Staff Notes (including Job Openings and Calendar) delivered each Thursday morning as a set of two to four ASCII e-mail messages. To subscribe, you must send a message to the address “majordomo@ncar.ucar.edu”. The subject line of your message should be blank, and only the words “subscribe staffnotes” should appear on the first line of the message itself. If the attempt is successful, you will receive a confirmation message (“welcome to staffnotes”) and more details on your subscription. You can subscribe or unsubscribe at any time. Important note: A sample issue was sent to all local UCAR/NCAR computer users this morning. You will not receive any further issues by e-mail unless you subscribe using the procedure indicated above.

Staff Notes through Gopher
Text files from each issue are placed on NCAR’s Gopher server each Thursday under the heading “NCAR/UCAR News and Information,” as follows:

- The current Calendar appears with the period of coverage in its title.
- Job Openings appear under “Employment Information.”
- Features, announcements, and visitors appear under “Publications” in the “Staff Notes” folder.

Staff who have accounts on Unix machines at NCAR can, in most cases, reach Gopher simply by typing “gopher.” If you have a PC or Mac that’s networked to the Internet, you can also access Gopher by obtaining a copy of the appropriate software—including a “client” program that helps you move through Gopher—and installing it on your machine. Consult your network administrator for the best way to install and use Gopher in your computing environment. People outside UCAR who are not on the Internet and want to use Gopher should first obtain Internet access through public or private providers, such as the Golden-based Colorado SuperNet. Check one of the many consumer books on Internet use for more details.
Crutzen Honored, Newcomers Spotlighted in ACD Colloquium

There was a rare sense of legacy and community in the Fiske Planetarium 2–4 December. Many of the world’s leading atmospheric chemists had gathered to pay tribute to one of their own: Paul Crutzen, NCAR atmospheric chemist from 1974 to 1980 and now director of the Max Planck Institute for Chemistry (Mainz, Germany). At the same time, they listened to new voices just entering their discipline. The long view was reflected in the meeting’s title—Challenges in Atmospheric Chemistry and Global Change: Yesterday, Today, and Tomorrow.

Crutzen was feted at a 60th-birthday dinner in which colleagues paid tribute to his sustained leadership. “Paul helped establish a new discipline in which every result was a discovery,” says ACD’s associate director for technical support, Paul Sperry. “He didn’t fetter his mind with constraints and was able to see many connections. It’s amazing how many of the key issues in atmospheric chemistry were anticipated by Paul. That legacy continues.”

The symposium’s first day was devoted to invited talks and poster sessions on tropospheric ozone, biomass burning, aerosols in the atmosphere, and other fields of current interest that Crutzen helped pioneer. The second day featured 19 contributed papers, most from young scientists no more than five years past receiving their doctorates. A Saturday-morning round-table discussion on science, policy, and society closed the colloquium. Reporters from the national lay and scientific press met with representatives of industry and government and UCAR’s Rick Anthes, Peter Gilman, and Mickey Glantz, all pondering how science should be conveyed to policymakers and the public and what can go right or wrong in the process.

*BH
Best Wishes, Jim Weber

The new year will bring a new lifestyle to Jim Weber: retirement. Next week Jim closes the books on a 28-year NCAR career that’s spanned several divisions and a variety of tasks.

Jim came on board 22 December 1965. As an electronics technician, Jim kept tabs on NCAR’s early dropwindsondes, instrument packages dropped by plane. In the 1970s, he got a chance to get into the cockpit himself.

“I have a commercial pilot’s license and so I did a lot of flying for the dropsondes,” he says, recalling the National Hail Research Experiment. NHRE’s operational base was in the northeast Colorado hamlet of Grover—“a wide spot in the road,” as Jim calls it. He ferried staff to and from Grover each day in a Cessna 172 then being leased by NCAR. “We just about took Grover over each summer.”

Jim’s other flying task for NHRE wasn’t to drop radiosondes, but to help find them. “The Queen Air would drop about ten sondes, then we’d take a light plane and find the transmitters. They cost about $10,000 each and, although they were classified as throwaway items, we hated to throw them away. We’d fly low and slow and listen for the dropsonde signal from aboard the plane.” Most of the sondes were retrieved, saving NCAR thousands of dollars. Jim also spent summers in the Laramie–Cheyenne, Wyoming, area, monitoring instrumentation on an armored T-28 aircraft used to fly into hailstorms.

Once NHRE had accomplished its goals, most of its staff were absorbed into the Convective Storms Division, which eventually became the Mesoscale and Microscale Meteorology Division. Jim headed off in another direction as he joined the Scientific Computing Division (SCD) in 1986.

While in SCD, one of Jim’s main tasks has been insuring the integrity of NCAR’s link to the University Satellite Network. Now being eclipsed by fiber-optic technology, this satellite-based system connected NCAR to the Woods Hole Oceanographic Institution, the Institute for Naval Oceanography, and other U.S. research centers, as well as three sites in Mexico. Its NCAR node has been the 24-foot (7-meter) antenna that sits just outside the Mesa Lab cafeteria. Although the Mexican links to USAN continue, says Jim, “it won’t be too long for this world, because there’s a fiber-optic link being installed between Mexico and Houston.” Jim’s “high-fiber” job in SCD also involved maintaining fiber-optic connections throughout the Mesa Lab and completing the similar network that was partially finished during remodeling of the Foothills Lab.

Don’t be surprised if you see Jim back in the ML hallways after his official retirement. He will likely help out during the transition to whoever inherits his post. “After 28 years, I have a lot of detail in my head. Most of it’s documented, but there are little things that someone new might get stonewalled on.” Meanwhile, he’ll shift his attention to remodeling his house and “just kicking back for a while—I haven’t been able to do that for a lot of years.” He’ll be accompanied by his wife Lois, a long-time clerk in Facilities Support Services who fills in on the switchboard and at the ML and FL front desks on occasion.

“There’s a lot of folks who fall into the category of family,” Jim says in looking back on his NCAR days. “I’m anxious to lead my own life, but I’ll miss the people here. They’ve just been marvelous.” •BH
The Agora: State of the Mesa Lab

The bimonthly Staff Notes Agora is designed to give readers a chance to write on matters of UCAR/NCAR interest or to ask "non-Delphi" questions pertaining to our science and history. Our submission for December comes from Carol Park (RAP), who asks:

Along the same historical line as the last Agora question, I was wondering about the architectural history of the Mesa Lab. For example, how was I. M. Pei chosen as the architect? Was there a design competition? I think the positive aspects of the design are obvious, but what were and are the negative aspects? How is the building holding up? What were and are the design problems?

I. M. Pei was selected by a committee formed by deans of architecture schools from seven UCAR universities. The committee assembled a slate of six nationally known architects in May 1961. NCAR staff were heavily involved in the interview process, which culminated in the unanimous choice of Pei two months later. Much detail on the construction and architecture of the Mesa Lab can be found in the booklet The National Center for Atmospheric Research: An Architectural Masterpiece, produced in 1985. It can be purchased for $4.50 at the ML front desk from ML receptionist Shelby Pillow, ext. 1140.

For word on how the Mesa Lab has held up over the years, we went to senior planner George Lamb, who compiled a report on the topic in September as a guide to future repair and renovation. Below are some highlights, along with comments from George.

The Mesa Lab has served us remarkably well considering the amount of remodeling that we have done. Over time new functions have been added and some problems associated with the original design have become apparent.

Design Issues

Absence of control joints. Structural cracking became a concern shortly after the lab was occupied in 1967. A study showed that some cracking had occurred but that a remedy would be cost-prohibitive. It was suggested that NCAR monitor the situation for further damage; we have not seen anything of concern.

Concrete and moisture proofing. Vertical exterior surfaces have developed hairline cracks because of the very fine and porous sandstone aggregate used in the concrete, and because of the surfaces' brush-hammer finish. Unless the cracks are remedied, water intrusion will affect the concrete and damage the reinforcing steel.

Heating/cooling inefficiencies. Pei's original design for the Mesa Lab included a C tower that would have flanked the south side. The C tower was dropped due to budget cuts after design had been completed. Since the lobby, cafeteria, and central heating/cooling plant were all sized for the larger complex, the building as a whole is fairly inefficient in its space allocation and the operation of the central plant.

Low R-value walls. The lab's outer walls have a low R-value, increasing energy costs. The steel casement windows are rusting and require considerable maintenance; we would like to eventually replace them with energy-efficient double-glazed windows.

Roof leaks. The work we did in the mid-1980s cured the flashing and drainage problems. The single-ply membrane roof on the low section between the two towers should last another ten years.

Changes in Building Use

Increased scientific interaction and a larger staff. The Mesa Lab's design was intended to help scientists work in isolation and meet in key designated areas. Much work is now done in teams rather than independently. The inflexibility of the lab's layout and interior partitions makes it difficult to reconfigure space to meet team requirements. Many offices are smaller than NCAR norms and

Fountain Plaza Renovation Begins

For the past few years the surface of the Mesa Lab fountain plaza surface has experienced major deterioration, with increased water leakage into the areas below. Months of planning and design have now brought us to the construction phase. The plaza is now closed to public access. All doors leading onto the plaza are closed and posted. All stairs adjoining the plaza will be barricaded, with no access except for the construction personnel and equipment. The present fountain plaza surface and all of the concrete, insulation and waterproofing will be replaced. The work will be completed by mid-January. We apologize for any inconvenience. • Pat Harris, Facilities Support Services
marginal in air delivery. At least two additional moderate-sized meeting rooms are needed.

**Telephone and computer demands.** The current digital phone system, now ten years old, is near capacity and will have to be replaced when growth occurs at other sites or when manufacturer support ends.

**Environmental issues.** Ceilings with asbestos were removed from public areas in 1989; asbestos remains as insulation in parts of the hot/cold water systems and in the original floor tiles. The original humidification system was dropped in 1983 due to concern over air quality. PCBs (polychlorinated biphenyls) are virtually absent from the Mesa Lab after replacement of certain electronic equipment. CFCs (chlorofluorocarbons) remain in the lab's cooling system.

**Safety and security.** Numerous entry points throughout the lab have led to security problems. The process of controlling after-hours access and adding alarms to certain doors and hatches has begun, but much remains to be done. The ML fire alarm system is being upgraded and sprinklers installed in phases. Emergency lights are being expanded and exit-door hardware improved. The Americans with Disabilities Act (ADA) mandates Braille signage, wheelchair-accessible doors, special drinking fountains, and telephones for people with hearing impairments.

**Priorities from Now to 2000**

Our planning process will identify various levels of urgency and associated costs for Mesa Lab projects. NCAR managers have been very supportive of the rehabilitation program to date and have asked for a phased program to address future repairs and modifications. We will be preparing that program in the next few months.

Projects that we can anticipate in the next few years, funds permitting:
- Replace the lab’s telephone system, as well as mechanical components that will reach the end of their useful lives: pumps, fans, valves, ballasts, air compressors, motor starters, and so on
  - Replace roofing on the sixth floors, penthouses, and crow’s nests
  - Replace the tree-plaza surface
  - Renovate offices in A tower and the first basement
  - Seal the exterior vertical surfaces
  - Complete the sprinkler installation
  - Replace chillers or retrofit them to remove CFCs
  - Upgrade the lab’s cooling system, air delivery system, security system, and elevators
  - Add ADA improvements as part of future remodeling projects

*If you have questions about the ML upgrade process, contact George at ext. 1152, e-mail glamb@ncar.ucar.edu.*

Announcements

**And the Floaters Are . . .**

UCAR’s floating holidays for 1994, as chosen by staff ballot, will be Friday, 1 July, and Friday, 23 December. Thanks go from Human Resources to all who took the time to complete and return their ballot on time.

**Limited Menu for the Holidays**

Food Services will be operating with a limited menu from 20-22 and 27–30 December. We will be offering a sandwich special or pizza, the salad and sandwich bars, soup, and grilled items. Regular hours will be in effect. Full service will resume on 3 January 1994. Happy holidays!

**No IDs on 30 December**

There will be no identification cards produced at the FL front desk on Thursday, 30 December. Please plan accordingly.

**Recycling Tip: Window Envelopes OK**

Many sorts of items can be recycled in the mixed-office-paper category, including window envelopes. Check the “What Paper Goes Where?” listing that came with your personal deskside recycling bin to see what other items are acceptable.
Staff Notes Holiday Schedule

Due to the upcoming holidays, Staff Notes will appear on Wednesday, December 22, rather than the following Thursday. Announcements for that issue must be received by 5:00 p.m. Friday, 17 December; Calendar items must be submitted by 5:00 p.m. Monday, 20 December. No Staff Notes will be published the week of 27–31 December. Contact Bob Henson, ext. 8605, bhenson@ncar.ucar.edu if you have questions.

EAC News: Share Some Time with Share-A-Gift

Thanks to everyone who donated to Share-A-Gift. Your response was great. The boxes are full of very nice toys and even some bicycles and tricycles were donated! For those of you who didn’t get to share a toy, but would like to help, volunteers are still needed through this Friday, 17 December, to inventory the toys and set up for the toy shops, which will be at the North Boulder Armory.

For those of you who would like to meet the parents you’re helping, there will be three toy-shop sessions on 18–19 December (Saturday and Sunday). Each session needs 20-25 volunteers for check-in, checkout, gift wrapping, and Spanish translation. For details, please contact Chyrl Brunner, ext. 8718.

Visitors

—Jeff Lee, CGD

—John Gille, ACD

—John Gille, ACD

Roger Ressmeyer, National Geographic Books. Interest: Climate modeling. 8 December.
—Anatta, Media Relations

Thomas Seliga, University of Washington. Interest: Arizona project. 9–14 December.
—Roelof Bruintjes, MMM/RAP

Yuri Skiba, Mexico City. Interest: Dynamic and synoptic meteorology. 15–17 December. ML room 425, ext. 1366.
—Grant Branstator, CGD

—Starley Thompson, CGD

Joel Van Baelen, Toulouse, France. Interest: BL profiling and interferometric techniques. 29 November–10 December.
—Dave Parsons, ATD

Calendar

There were no entries submitted for the calendar for next week.
Job Openings

December 16, 1993

EMLOYMENT PROCESS

PLEASE READ!

APPLYING FOR JOBS AT UCAR (including the University Corporation for Atmospheric Research and the National Center for Atmospheric Research): You may call our 24-hour jobline, 497-8707, for information about UCAR positions. Please follow this checklist to ensure that you are considered for positions for which you feel qualified:

1. Submit a separate application and/or resume for each position,
2. Indicate the job number and position title on your application materials, and
3. Hand carry or mail your application and/or resume to Human Resources by the closing date posted. Applications and/or resumes submitted by facsimile (fax machine) will not be accepted.

NOTIFICATION OF APPLICATION STATUS: Each applicant will receive an acknowledgement letter. After that, you will be contacted ONLY if you are chosen to be interviewed.

MORE INFORMATION ON SPECIFIC OPENINGS: You may obtain copies of previous "Job Openings" ads at the UCAR Human Resources Office, located at 3450 Mitchell Lane, Boulder.

UCAR EMPLOYEE APPLICATIONS: If you are a UCAR employee and wish to be considered for any of the positions listed, please complete an employee application (available from Human Resources, x8713), attach a resume, and return it to Human Resources, FL2.

NOTE TO UCAR STAFF: Requests for Staff must be received in the Human Resources Office no later than noon on Monday in order to appear in the following Thursday's edition of Staff Notes. However, the posting of new or unique positions will be delayed if market data (which is used to establish salary ranges) is not readily available.

The University Corporation for Atmospheric Research has a strong commitment to the principle of diversity in all areas. In that spirit, we are interested in receiving applications from a broad spectrum of people, including women, members of ethnic minorities, veterans, and disabled individuals.

*ASSOCIATE SCIENTIST I - #1918*

PLEASE NOTE: Applications for this position will be accepted until December 31, 1993.

ATD - Theoretical Studies and Modeling Section (TSM)
Exempt Range: 53, $2,387 - 3,580/mo
DUTIES INCLUDE: Provides support to and collaborates in model development work on an existing 3-D numerical code. Collaborates primarily on topics associated with terrain-induced turbulence related to the Hong Kong airport study. Performs code for high power workstations. Tests numerical algorithms. Develops and tests initialization procedures. Collaborates with supervising CMS scientist on various research topics in the area of small scale atmospheric dynamics and cloud physics.

ADDITIONAL DUTIES (Level III): Develops code for massively parallel architectures. Co-authors scientific papers for technical reports or refereed journals at supervisor's discretion.

REQUIREMENTS INCLUDE:
- M.S. degree in atmospheric science or equivalent combination of education and experience
- Knowledge of finite difference numerical methods applied to fluid dynamics
- Experience in working with large computer codes of atmospheric dynamics
- Familiarity with Fortran and with UNIX-based operating systems
- Skill in documenting work and scientific reports
- Willingness to travel abroad up to eight weeks per year
- Demonstrated knowledge of analysis techniques as applied to meteorological data
- Skill in developing code for massively parallel architectures

PLEASE NOTE: This is a one year term position with possibility of extension.

Anna Reyna-Arcos

*ASSOCIATE SCIENTIST II/III - #1913*

PLEASE NOTE: Applications for this position will be accepted until 5:00 p.m., on January 7, 1994.

MMM - Convective Meteorology Section (CMS)
Exempt Range: 55: $2,760 - 4,140/mo (Level II)
58: $3,433 - 5,150/mo (Level III)

DUTIES INCLUDE: Provides support to and collaborates in model development work on an existing 3-D numerical code. Collaborates primarily on topics associated with terrain-induced turbulence related to the Hong Kong airport study. Performs code for high power workstations. Tests numerical algorithms. Develops and tests initialization procedures. Collaborates with supervising CMS scientist on various research topics in the area of small scale atmospheric dynamics and cloud physics.

ADDITIONAL DUTIES (Level III): Develops code for massively parallel architectures. Co-authors scientific papers for technical reports or refereed journals at supervisor's discretion.

REQUIREMENTS INCLUDE:
- B.S. in computing science, atmospheric science, mathematics, engineering or other physical science or equivalent combination of education and experience
- Demonstrated skill in writing easily modifiable, portable and user-friendly software
- Demonstrated skill in FORTRAN
- Demonstrated effective communications skills, both verbal and written
- Skill in assisting in construction of models, as well as in interpretation of data
- Familiarity with one or more of atmospheric chemistry, meteorology or numerical methods and their computer implementation
- Willingness to keep current with the scientific literature on selected topics

PLEASE NOTE: This is a one year term position.

Anna Reyna-Arcos

UCAR/NCAR is an equal opportunity/affirmative action employer.

Mail resumes to: Pick up applications at: Job Line: (303) 497-8707
P.O. Box 3000 3450 Mitchell Lane (303) 497-8707
Boulder, Colorado 80307 Boulder, Colorado 80301

Human Resources: (303) 497-8713
**DIRECTOR, ATMOSPHERIC TECHNOLOGY DIVISION - #1910**

PLEASE NOTE: Applications for this position will be accepted until 5:00 p.m. on February 15, 1994.

ATD - Director’s Office
Exempt Range: 68, $7,073 - 10,610/mo
DUTIES INCLUDE: Provides overall scientific and technical leadership for development of modern observing capabilities to meet current and foreseeable needs of the research community. Develops long-term observing facility plans, based on accurate assessments of need that include appropriate participation by the community. Initiates and directs activities for funding the development, acquisition, and operation of field observing facilities. Devises and successfully implements various funding and procurement strategies. Participates in the planning of major national and international field research programs. Administers the allocation of NCAR observing facility resources, national and international field research programs. Administers the and procurement strategies. Participates in the planning of major national and international field research programs. Administers the allocation of NCAR observing facility resources, in consultation with facility advisory panels, and with appropriate liaison with UCAR/NCAR management, NSF, and other agencies. Staffs and manages major research programs and/or observing facilities. Maintains effective liaison on field facility development and operation with the university user community, other federal agencies involved in atmospheric research, and national and international research organizations. Maintains effective liaison with NSF regarding facility development, operation, funding, and long-range planning. Participates in the overall planning and management of NCAR through participation in the UCAR Management Committee, the NCAR Directors’ Committee, and other advisory groups established by the NCAR Director. Recruits and manages technical and scientific staff, negotiates and monitors agreements and contracts. Oversees budgeting and financial management of the division. Ensures effective management and administration of the division and effective pursuit of NCAR’s affirmative action goals. Maintains scientific and technical competence through involvement in individual research and other appropriate activities.

REQUIREMENTS INCLUDE:
- Ph.D. in physical science or engineering OR equivalent combination of education and experience
- Demonstrated scientific and technical leadership in areas relevant to ATD’s activities
- Prominent and respected member of the atmospheric sciences community
- Broad knowledge of atmospheric observing facilities, broad vision regarding observing facilities required to pursue major goals of the science and extensive research experience in the use of such facilities
- Current knowledge about major research programs and programs across the full spectrum of atmospheric science served by NCAR
- Demonstrated skill in working cooperatively with individual scientists and organizations, particularly those in the university/federal research community
- Effective communication, advocacy, and diplomacy skills
- Willingness to interact effectively in a cross-disciplinary fashion with the broader geosciences research community
- Willingness to travel extensively in connection with ATD activities and in carrying out the duties of the position

Anna Reyna-Arcos

**STUDENT ASSISTANTS**

All student assistants must be enrolled for credit in an accredited secondary or post secondary school, college or university; or in a trade school which has received a Certificate of Approval from the Colorado State Board for Community Colleges and Occupational Education and must be able to work up to 20 hours/week during periods school is in session, and full-time during breaks.

**STUDENT ASSISTANT II - #1916**

PLEASE NOTE: Applications for this position will be accepted until 5:00 p.m. on January 10, 1994.

CGD - Interdisciplinary Climate Systems
Flat Rate: 7.90/hr
Hours: 20 hours per week during school, full-time during breaks
DUTIES INCLUDE: Serves as resource for accessing atmospheric data sets, both observed and model generated. Develops observed data sets from diverse sources. Writes and documents programs to incorporate statistics in data set comparisons, and runs analysis programs. May run crop climate models.

REQUIREMENTS INCLUDE:
- Major field of study in physical science, engineering, computer science, mathematics or statistics
- Demonstrated skill in FORTRAN programming
- Demonstrated skill in working with large data sets desired
- Demonstrated skill in working in a UNIX operating system environment
- Some knowledge of statistics and some physical science (preferably atmospheric science, or geosciences)
- Good oral and written communications skills
- Skill in working with people and maintaining effective working relations
- Skill in organization for effective management of data and programs for general use

PLEASE NOTE: This position is for a term of up to one year with possibility of extension.

Anna Reyna-Arcos

**STUDENT ASSISTANT III/IV - #1902**

PLEASE NOTE: The closing date for this position has been extended. Applications for this position will be accepted until 5:00 p.m. on December 30, 1993.

SCD - Visualization
Flat Rate: $9.55/hr (Level III)
$11.50/hr (Level IV)
Hours: 20 hours per week during school, full-time during breaks
DUTIES INCLUDE: Tests and maintains NCAR Graphics software on SUN/UNIX, CRUX/UNICOS, DEC RISC/ULTRIX, HP/UX, IBM RISC/AIX, and SGI/Irix systems. Builds test drivers, maintains detailed records of the tests results and writes and follows up on trouble reports. Designs and develops comprehensive test suites for testing interfaces on the many supported systems of NCAR Graphics. Consults with users on the installation of NCAR graphics via electronic mail, telephone and answering machine. Assists with porting of NCAR Graphics and other software packages to additional UNIX systems. Develops and applies system utilities in support of graphical applications.

REQUIREMENTS (Level III):
- Skill in C and FORTRAN programming
- User level familiarity with one or more flavors of UNIX
- Familiarity with the UNIX "make" facility
- High level communications skills, both oral and written
- Skill in working well independently or as part of a group

ADDITIONAL REQUIREMENTS (Level IV)
- In-depth knowledge of the UNIX operating system
- Skill in the installation and testing of software on UNIX systems
- Familiarity with the X Window System
- Familiarity with graphics and visualization software

PLEASE NOTE: This is a term position through September 30, 1994.

Anna Reyna-Arcos

First published in "Job Openings" on October 28, 1993

**ADDITIONAL POSITIONS**

SOFTWARE ENGINEER/PRIGRAMMER II - #1911

PLEASE NOTE: Applications for this position will be accepted until 5:00 p.m. on December 22, 1993.

SCD - Distributed Services
Exempt Range: 56, 2,967 - 4,450/mo
First published in "Job Openings" on December 2, 1993.

SCIENTIST I - #1882

PLEASE NOTE: The closing date for this position has been extended. Applications for this position will be accepted until 5:00 p.m. on December 31, 1993.

ACD - Stratospheric/Troposphere Measurements Section
Exempt Range: 58, $3,433 - 5,150/mo
First published in "Job Openings" on October 7, 1993.

* Asterisked positions are appearing in "Job Openings" for the first time.