This year's diverse group of undergraduate students participating in the Summer Employment Program (SEP) at NCAR have a common goal: to get involved in science beyond the collegiate arena. The program encourages undergraduate minority students to explore scientific opportunities outside of university classrooms.

SEP student Kathy Caesar, a meteorologist, has spent her summers working as a supervisor of academic computing services at the State University of New York at Brockport. She is pursuing undergraduate degrees in meteorology and mathematics. Kathy's experiences working on the Convection and Precipitation/Electrification Experiment project in Florida and Boulder have strengthened her motivation to go to graduate school. She says, "Every day there is something else I want to learn about radars, radar technology, and computers." Kathy plans to do graduate work in tropical meteorological research, specifically storms and hurricanes.

SEP student Alane Allman, a classical pianist, has spent her summers working in restaurants and private receptions in Chattanooga, Tennessee. She is a chemistry major at Rice University. Alane's SEP experience has given her a head start on the physical chemistry classes she will be taking next fall.

SEP student Michael Martinez, a hiker, has spent her summers working as a classical pianist in restaurants and private receptions in Chattanooga, Tennessee. He is a chemistry major at Rice University. Alane's SEP experience has given him a head start on the physical chemistry classes he will be taking next fall.

The future meteorologist, Kathy Caesar, works at the State University of New York at Brockport as a supervisor of academic computing services and is pursuing undergraduate degrees in meteorology and mathematics. Her experiences working on the Convection and Precipitation/Electrification Experiment project in Florida and Boulder have strengthened her motivation to go to graduate school. Enthusiastically, she says of her experiences at NCAR, "Every day there is something else I want to learn about radars, radar technology, and computers." A native of Trinidad, Kathy plans to do graduate work in tropical meteorological research, specifically storms and hurricanes.

Until this year, Alvin Huang spent his summers working as a classical pianist in restaurants and private receptions in Chattanooga, Tennessee. Alvin is a chemistry major at Rice University. By chance, he saw the SEP announcement on the back page of the Rice Office of Minority Affairs Newsletter, applied, and was accepted. His SEP experience has given him a head start on the physical chemistry classes he will be taking next fall.

Alvin likes learning how to work with the instruments used to do infrared absorption cross sections in the Atmospheric Chemistry Division.

Phuong Van Leach is located at the Institute of Naval Oceanography. Phuong likes to "experience the outdoors." He is a veteran of the ten-
kilometer Crescent City Classic held in his home state, Louisiana. He has placed in the top 500 out of 33,000 runners.

Phuong is a graduating senior at the University of Southwestern Louisiana, majoring in computer science. His involvement with SEP is a step closer "to doing something in computer science and not just something anyone else could do." Phuong's SEP project deals with Optimal Thermal Interrelation System software. Through his love for computers, Phuong picks up computer languages quickly. This is his first opportunity to work with FORTRAN.

As Phuong speaks, his excitement about the future is palpable. Disciplines such as "making good grades" in high school, "staying serious about school," and "limited partying" have brought him an internship for the fall in Tennessee involving computer programming and artificial intelligence work. With the doors of opportunity opening wide, "having the feeling of being wanted is great."

Melissa Thomas misses the thoroughbred race track in her native Saratoga Springs, New York, but she likes being in Boulder. She is thoroughly interested in the Winter Icing and Storms Project and tornado nowcasting at the Research Applications Program (RAP), which complement her meteorology major at the State University of New York at Oswego.

The NCAR experience for Alane Allman means working with the elements of her career plans—law and the environment. A graduating senior at Howard University, Alane brings her interests to bear on a project she is doing with Kathy Miller of the Environmental and Societal Impacts Group. Her project involves proposing strategies for native African women to prevent environmental degradation caused by overcultivation of the land. She feels strongly about the plight of African women left by their tribal mates to raise families virtually alone. Her solution includes simple ways to promote agricultural grassroots movements.

Colorado resident Beth Hobson started her academic career at Colorado State University as a major in engineering science and continued at the University of Colorado as an aerospace engineer, but engineering was not for her. She transferred to Metropolitan State College in Denver and made the change to meteorology. Beth remembers being "interested in severe weather as a child." In her high school yearbook Beth was noted as being "the only future meteorologist who could shoot a jumpshot."

The Thunderstorm Weather Project Beth is working on at RAP allows her to apply what she has learned in class to research. In her NCAR project, she works extensively with radiosondes. In comparing the meteorological tools available at school with those at NCAR, she says, "the school's instruments are not as extensive or as modern as the ones used here," and continues, "for hands-on experience, this is all new." Beth has "learned from [her] college career to stop and listen to [yourself] and then go on." She plans to "go on" by continuing her research for RAP in the fall.

Julie Huang, a system engineering major at the University of California, San Diego, and Amy Wong, a computer science and mathematics major at the University of California, Los Angeles, had not met each other before this summer. Both agree that Boulder is pleasantly enjoyable and "totally different" from California. (They recently discovered the only beach in Boulder, the Boulder Reservoir.) Julie's project has given her the opportunity to take a class outlining the basic operations of the NCAR supercomputer system. Amy worked on a project involving Unidata clients.

Kay Kim, originally from Oklahoma, studies electrical engineering at Cornell University. Kay's interests lie in image processing. Being at NCAR allows her to see how people use the "applications of radar stuff" through the Hawaiian Rainband Project (HaRP). She comments that she was completely computer illiterate before coming to NCAR but has learned a lot this summer. She hopes to use her SEP experiences working for a cinematic special effects company.
Influenced by his father, Michael Martinez chose a degree path in math and physics. He is attending the New Mexico Institute of Technology and is still trying to decide whether to apply his degree to engineering, industry, or defense contracting. Michael is working on the CRAY Library Stack Variables Project in the Scientific Computing Division.

Elisabeth Yap is an earth and planetary sciences major at Harvard University. She specifically wants to study the atmosphere and oceans. Like Alane, Liz wants to go into environmental law. Liz's project involves validating data gathered from Atmosphere-Surface Turbulent Exchange Research readings. After she completes her degree at Harvard, she would like to join the Peace Corps or travel before deciding on which graduate school or law school to attend.

Melissa Thomas probably sums up the experience of all the SEP students best when she says, "It has been a real learning experience. Not only has it opened the door for us, it has put us halfway through."

**Announcements**

**Chris Ennis to Open LASERS Next Week**

Chris Ennis (Atmospheric Chemistry Division) is the first speaker in the upcoming Learning about Science Easily and Readily Series. She will cover biosphere-atmosphere interactions in "A New Way to Look at the Forest the Next Time You Go Camping," Thursday, 15 August, at the Foothills Lab in the Building 3 temporary auditorium. The talk will be repeated on 22 August in the Mesa Lab's Main Seminar Room.

Larry Radke (Research Aviation Facility) will summarize the Kuwait oil fires expedition on 5 September at the Mesa Lab. Peggy LeMone (Mesoscale and Microscale Meteorology Division) will explain cloud formation on 12 September at the Foothills Lab and on 19 September at the Mesa Lab. All talks begin at 10:30 a.m. and are open to the public. For more details, contact Bob Henson, ext. 8605.

**SCD Offers Two New Classes**

**UNIX Basics**

Are you looking for a quick and effective way to get started on UNIX? The Scientific Computing Division (SCD) is offering two UNIX Basics classes in August and September that will cover directory structure, file manipulation, I/O redirection, basic commands, e-mail, the vi editor, shell scripts (.login, .cshrc, and .profile), and aliasing.

Each hands-on class will be spread over two partial days to avoid information overload. The first will be Wednesday–Thursday, 14–15 August, 9:00 a.m.–2:30 p.m. The second will be at the same time on Wednesday–Thursday, 11–12 September.

The UNIX Basics classes are designed for all users who want to learn beginning UNIX. There is no CRAY-specific information in these classes. Class size is limited to ten participants (two per terminal).

**UNICOS Orientation**

SCD's one-day orientation class introduces new users to UNIX/UNICOS programming tools and the NCAR computing environment. If you have a new account on NCAR's CRAY Y-MP8/864 (Shavano) and a basic knowledge of UNIX but don't know where to start, this class is for you. Class size is limited to 12 participants.

To register for either class, call the SCD course enrollment line, ext. 1225, or send e-mail to scdinfo@ncar.ucar.edu. Both classes are free.

**New Staff**

Michael George, engineering aide with the Director's Office. FL 3, ext. 8532.

Linda Nettleton, student assistant III with MMM. FL 3 room 2044, ext. 8157.

Leonard Snellman, scientist III with COMET. Off site, ext. 8492.

**Departures**

Mark Abrams 20 July
Matthew McIrvine 20 July
Tricia Slovacek 23 July
Don Stone 19 July

SEP Goodbye Party
Tomorrow, 9 August
3:00 p.m.
Mesa Lab Cafeteria
Don't miss it!
Where’s the Beer? Triumphs—Twice

Where’s the Beer? won a double-header over Exabyte 16-12 and 19-13. In the first game, Scott Paswaters and Vic Pizzo both blasted home runs to give Beer? an early 11-1 lead, but tradition held up and Beer? blew the lead. Wes Wildcat entered the game as pitcher and shut out Exabyte until they scored a home run. Later he made up for it with a game-winning double that allowed Greg Woods to score.

In the second game, Beer? fell behind early but erupted for 16 runs in two innings as Vic Pizzo hit another home run. Early in the game, Julie Sundquist had control problems while pitching but settled down to hold the lead. Julie Chapin and Patti Parisi kept the rally going by making several hits. Where’s the Beer? will play again today at 6:45 p.m. at Mapleton Fields. Their last game of the year will be on Sunday, 11 August, at 5:45 p.m., also at Mapleton Fields.

For Voice Mail Training, Press “0”

This month, NCAR’s telephone system enters a new era with the introduction of a voice mail system. Voice mail is an extension of the familiar answering machine. With it, staff can record messages and send them to others within the UCAR/NCAR network. They can access their telephone messages from anywhere in the world. The system has a number of other capabilities that cut down on the flow of routine paperwork and streamline the dissemination of information.

Participation in the new voice mail system is optional. Staff will become part of it as soon as they attend one of the short training classes that run 19–26 August. Class schedules have been distributed to all staff. To register, call the NCAR operators. For further information on the voice mail system, call Harry Hiebert, ext. 1121.

Visitors

—Terry Clark, MMM

—William Kuo, MMM

—Michael Glantz, ESIG

Mulquiny, John. Australian National University, Canberra. Interest: Atmospheric chemistry. 6–9 August. Library, ext. 1414.
—Patrick Zimmerman, ACD

—John Firor, ASP

—Guy Brasseur, ACD

Takano, Y. Shimizu Corporation, Tokyo, Japan. Interest: Aral Sea rehabilitation project. 6–7 August.
—Michael Glantz, ESIG

—William Holland, CGD
The following new acquisitions for the Mesa and branch libraries will be displayed in the Mesa Library through the dates listed above. They may be reserved during display for subsequent checkout. NCAR staff located off the mesa may borrow new books by checking the item(s) of interest below and sending this list to Faith Percell. Be sure to include your name, location, and extension. Reference material, however, does not circulate.

**New Books**

**Astronomy**


**Chemistry**


**Climatology and Meteorology**


**Electrical Engineering**


**Environmental Technology**


**Library Science**


**Management**


**Mathematics and Computer Science**


Medicine

Naval Science

Oceanography

Physics


Mathematics, Computer Science


Pollution

New Reports

Atmospheric Science


Engineering, Technology

General Publications

*To obtain copies of these technical reports please contact the publisher. For NCAR publications contact Information Services at 497-8600. For UCAR publications contact the issuing UCAR office.
APPLICATION PROCEDURE: To ensure that you will be considered for the positions for which you feel qualified, an application form should be completed for each. Please indicate the job number and position title on your application. Completing an application is very helpful - although not absolutely necessary. A resume will be accepted provided it contains all necessary information. You may call our 24-hour jobline, 497-8707, to obtain information about UCAR/NCAR positions.

NOTIFICATION OF APPLICATION STATUS: If you are applying for an exempt position, we will notify you as to the status of your application as soon as it can be determined. If you are applying for a non-exempt position, you will be notified only if we wish to interview you. Normally, positions are closed after sufficient applications have been received. When a position closes, it will no longer appear in Staff Notes or be announced on the jobline.

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

UCAR/NCAR EMPLOYEE APPLICATIONS: If you are a UCAR/NCAR 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, FL3.

NOTE TO UCAR/NCAR STAFF: Requests for Staff must be received in the Human Resources Office no later than noon Monday in order for the job to be posted in the following Thursday’s Staff Notes.

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.

*ADMINISTRATIVE SECRETARY - #1445*

PLEASE NOTE: Applications must be received no later than 5:00 p.m. on August 23, 1991.

CGD - Climate Modeling Section
Non-Exempt Range: 28, $1,762 - 2,288/mo

DUTIES INCLUDE: Provides secretarial support for the Climate Modeling Section staff. Prepares, proofreads, and edits drafts and final copy of correspondence, reports, scientific manuscripts, and administrative forms and documents; compiles information and assists in the development of reports; composes memoranda, letters, and correspondence for own and others’signature; arranges seminars, workshops, and meetings; formats and types tables, statistical data, and complex scientific/mathematic equations; monitors budget status reports and other records; reviews and verifies payment of all travel authorizations, vouchers, and group expenditures; and performs general secretarial duties including answering phones, sorting and distributing mail, photocopying, filing, and record maintenance.

Requirements include:
- Advanced knowledge of office procedures
- Advanced knowledge of travel arrangements and procedures
- Advanced skill in typing technical, administrative, and complex documents
- Skill in communicating both orally and in writing
- Skill in using word processing and computer equipment
- Skill in setting priorities
- Skill in proofreading and editing complex materials for grammar, spelling, and punctuation
- Skill in maintaining records
- Skill in identifying information sources for problem-solving
- Skill in using good judgment and discretion in handling confidential materials

Kristen Womer

SOFTWARE ENGINEER III - #1338

PLEASE NOTE: This position is being reopened. Position #1338 originally closed on February 21, 1991. The new closing date is 5:00 p.m. on August 23, 1991.

ATD - Surface and Sounding Systems Facility (SSSF)
Exempt Range: 59, $3,433 - $5,150/mo

DUTIES INCLUDE: Maintains existing codes and develops new codes for data acquisition, archive and analysis for SSSF observing facilities with initial focus on the ASTER surface exchange research facility. Designs and implements enhancements in the areas of data management, real-time displays, configuration control and analysis tools; performs system administration and maintenance; participates in the design, creation and maintenance of system software used to synthesize data products obtained from active and passive remote tropospheric profilers, in-situ sounding systems and surface based measurement systems; specifies and carries out networking techniques for integrating diverse measurement systems; installs and maintains local utilities and operating system software; and participates in field deployments.

Requirements include:
- M.S. in computer science or atmospheric science OR the equivalent combination of education and experience
- Demonstrated skill in the use of UNIX operating system, shell programming and UNIX system administration
- Demonstrated skill in the design, implementation and maintenance of large software systems
- Demonstrated skill in X-windows programming
- Demonstrated skill in C programming
- Skill in directing the execution of large software projects
- Oral and written communication skills
- Demonstrated knowledge of research efforts involving analysis of meteorological data sets
- Knowledge of networking techniques and capabilities
- Knowledge of and interest in atmospheric science as evidenced by a publication record

PLEASE NOTE: This position is for a term of up to three years with the possibility of extension.

Searl Brier

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

<table>
<thead>
<tr>
<th>Mail resumes to:</th>
<th>Pick up applications at:</th>
<th>Job Line: (303) 497-8707</th>
</tr>
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<tbody>
<tr>
<td>P.O. Box 3000</td>
<td>3450 Mitchell Lane</td>
<td>Human Resources: (303) 497-8713</td>
</tr>
<tr>
<td>Boulder, Colorado 80307</td>
<td>Boulder, Colorado 80301</td>
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ADDITIONAL POSITIONS

We are still accepting applications for positions listed below. For information on any of the following previously published job vacancies, please contact the Human Resources Department at 497-8713.

ASSOCIATE SCIENTIST II - #1438

PLEASE NOTE: Applications for this position must be received no later than 5:00 pm on August 14, 1991.
CGD - Climate Analysis Section
Exempt Range: 56, $2,760 - 4,140/mo
First published in "Job Openings" on July 11, 1991

SYSTEMS PROGRAMMER III or IV - #1432

PLEASE NOTE: The application deadline has been extended to August 16, 1991.
SCD - Systems Section
Exempt Range: 60, $3,687 - 5,530/mo (Level III)
63, $4,580 - 6,870/mo (Level IV)
First published in "Job Openings" on July 25, 1991

SCIENTIST II/III - RESEARCH ENGINEER I - #1426

PLEASE NOTE: Applications for this position must be received no later than 5:00 pm August 15, 1991.
ATD - Surface and Sounding Systems Facility, Integrated Sounding Systems
Exempt Range: 60, $3,687 - $5,530/mo
62, $4,260 - $6,390/mo
First published in "Job Openings" on June 20, 1991

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 - #1378
CGD - Climate Sensitivity & CO₂ Research Group
Flat Rate: $7.50/hr
First published in "Job Openings" on March 28, 1991

INO

The following positions are available at the Institute for Naval Oceanography, operated by the University Corporation for Atmospheric Research and located in Bay St. Louis, Mississippi. To apply, please submit applications to Susan M. Sprouse, Human Resources Specialist, Building 1103, Room 233, Stennis Space Center, MS 39529.

SOFTWARE ENGINEER III

Exempt Range: 9058, $3,100 - 4,650/mo
First published in "Job Openings" on December 6, 1990

*Asterisked positions are appearing in "Job Openings" for the first time.
12 August through 19 August 1991

Monday, 12 August
OPEN

Tuesday, 13 August
OPEN

Wednesday, 14 August
OPEN

Thursday, 15 August
- LASERS Seminar -- A New Way to Look at the Forest the Next Time You Go Camping -- Chris Ennis, ACD
  10:30 a.m.
  Foothills Lab
  Temporary Seminar Room

Friday, 16 August
- GTP Seminar -- Intermittency Growth in 3-D Turbulence -- Yoshifumi Kimura, University of Tokyo
  10:30 a.m.
  Foothills Lab
  Temporary Seminar Room

Monday, 19 August
- SEP Presentation -- Comparison of Finite Difference Method and Spectra Method in Solving Ejection Equation -- Julie Huang, SEP Student
  10:00 a.m.
  Mesa Lab
  Main Seminar Room

- SEP Presentation -- An Interactive Program to Access Remotely Held Weather Data -- Amy Wong, SEP Student
  2:00 p.m.
  UCAR North
  Main Conference Room, Room 170

Calendar announcements may be mailed to the Conference Office, ML 140. Tuesday at 5:00 p.m. is the deadline for items to be included.
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