

STAFF NOTES

NATIONAL CENTER FOR ATMOSPHERIC RESEARCH

Vol. 20, No. 42

18 October 1985

RETIRING EAC BOARD TRANSFERS TRAPPINGS OF POWER



Outgoing EAC chairs Mary Ann Shepphird (kneeling) and Holly Howard reluctantly relinquish the symbols of EAC power to new board members (left to right) Jim Moore, Kent Sieckman, and Bob Nicol. (Photo by Ginger Wadleigh.)

Officiating over the Employee Activities Committee (EAC) has its lighthearted moments, but last year's cochairs Holly Howard and Mary Ann Shepphird admit with the energetic humor that has characterized their tenure that it can also be a lot of work. "I've loved every minute of it," Mary Ann jokes, "but tell everyone to stop phoning me."

To ease the load, this year's board features a number of shared positions. As of October, the new EAC officers are Robert Nicol and Kenton Sieckman, cochairs; James Moore, treasurer; Paul Le Hardy, Kathy Lucero, and Rosemary Mitchell, rotating sec-

retaries; Sharon Blackmon and Sudie Kelly, heads of publicity; and Craig Walther, head of recreation.

Those staff members who enjoyed the many fruits of the old board's labors send a heartfelt thank-you to Holly and Mary Ann, and to outgoing treasurer Betty Sandoval, secretary Susan Kassinger, recreation chair Bob Nicol, and publicity heads Christine Guzy and Joan Thieke.

Questions and requests should be addressed to the new board members or to any of the other EAC representatives listed on page two. ●LW

This Week in *Staff Notes* . . .

EAC Board Change
New Transformers
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EAC REPRESENTATIVES

John Adams	ext. 1213
Sharon Blackmon	ext. 1681
John Garcia	ext. 1142
Christine Guzy	ext. 1543
Holly Howard	ext. 1323
Sudie Kelly	ext. 8951
Paul Le Hardy	ext. 1081
Kathy Lucero	ext. 1231
Robert McConnell	ext. 1128
Rosemary Mitchell	ext. 1235
James Moore	ext. 8816
Robert Nicol	ext. 1249
Mary Rickel	ext. 1632
Betty Sandoval	ext. 8860
Mary Ann Shepphird	ext. 8704
Kenton Sieckman	ext. 1438
Sam Stokes	ext. 1141
Joan Thieke	ext. 1544
Craig Walther	ext. 1051

NEW TRANSFORMERS TO CAUSE POWER CUT

The good news is that the Mesa Laboratory's four outdated electrical transformers, containing potentially hazardous PCBs, will be replaced this month and next with new, safer, and more modern units. The bad news is that power to the entire building will be out for all or part of next weekend while the first of the units is installed. Telephone service may be affected. Electricity will also be off during some weekends in November, while the remaining transformers are replaced.

Westinghouse, the manufacturer of the new transformers, will take away the old equipment, put in the new, and dispose of PCB coolants according to government regulations. They will begin next weekend by replacing one of the transformers serving the Scientific Computing Division computing center.

Power to the Mesa Lab will be cut at 6:00 p.m. on Friday, 25 October. According to George Lamb, manager of Physical Facilities Services, "It's a complex operation. With luck, they should be finished by late Saturday night, but there is a chance that the job won't be done until early Monday morning." In case of unforeseen problems, high-voltage circuits would be isolated and power restored to the rest of the building Monday morning while work continued. SCD staff are ready to resume work in the computing center as soon as they are given the green light, possibly as early as Saturday.

The other transformers should be installed in early November, but delivery dates have not yet been fixed. Watch future *Staff Notes* for details. ●LW

ANNOUNCEMENTS

ASP 25TH ANNIVERSARY SEMINARS

Eight former postdoctoral fellows in the Advanced Study Program (ASP) will present a series of seminars next Thursday and Friday, 24 and 25 October. They plan either to talk about their

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Writer/Editor: Sally Bates
Writer: Lucy Warner
Production Assistant: Anatta

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current work or to take a broader look at their research area in the field of science today. The eight are Eric Barron, University of Miami; Byron Boville, Atmospheric Analysis and Prediction Division; Brant Foote, Convective Storms Division (CSD); Ronald Gilliland, High Altitude Observatory; James Kasting, National Aeronautics and Space Administration (NASA) Ames Research Center; Gerald North, NASA Goddard Space Flight Center; Piotr Smolarkiewicz, CSD; and Richard Somerville, Scripps Institution of Oceanography.

The speakers will be introduced by the four former ASP directors, Maurice Blackmon, Peter Gilman, Philip Thompson, and Bernhard Haurwitz. The talks run from 9:00 a.m. to 4:30 p.m. on Thursday and Friday in the Main Seminar Room of the Mesa Laboratory. Consult Calendar Notes for details. Staff are also welcome to meet with the speakers and former directors during an open reception at 4:30 p.m. on Thursday in the Damon Room.

ETA SUPERCOMPUTER VIDEO

The Scientific Computing Division will be showing a videotape on the new ETA Corporation supercomputer, the ETA-10. The tape describes the major technological decisions made in designing the new generation supercomputer. It will be shown twice, at 1:10 and 1:50 p.m., on Wednesday, 23 October, in the Damon Room of the Mesa Laboratory. Seating is on a first-come, first-served basis.

MICOM PRINTER FOR SALE

The Environmental and Societal Impacts Group of the Advanced Study Program has recently upgraded its MICOM word processing system and discovered that its printer is no longer compatible. The printer, with sheet feeder and acoustical cover, is now for sale to any interested party at a fraction of its original price. For further information, contact Maria Krenz, ext. 1618, or Jan Stewart or Bev Chavez, ext. 1617.

NEW TOUR HOURS

Since this summer, NCAR has been offering guided tours and a slide show to the general public, explaining NCAR's research. The Mesa Lab tours will continue through the winter on an altered schedule; they are open to anyone, including tourists, school classes, and other groups. New tour hours are 12:15 p.m. each weekday and 10:00 a.m. on Saturdays. The program lasts about 45 minutes, and reservations are recommended. For further information, contact Dorothy Kokesh, ext. 1140, or Sally Hawkins, ext. 1154.

LIBRARY HALLOWEEN PARTY

The Mesa Laboratory library is hosting a Halloween party on Thursday, 31 October, at 1:30 p.m. Popcorn and spiced cider will be served, and costumes are welcomed.

CAFETERIA NEWS

The Wednesday lunch special for next week (23 October) will be a California burger, spiral fries, orange Bavarian dessert, and coffee or tea, all for \$3.50.

The breakfast special for next week will be eggs Benedito and coffee or tea for \$2.25.

The winner of this week's free lunch is

DOUG MOHR

NAME CHANGES

Tania Sizer, formerly Tania Loftus

Amy Westfeldt, formerly Amy Cannon

VISITORS

Evelyn Donall, Cooperative Institute for Research in the Environmental Sciences. Field of interest: Mesoscale modeling. 1 October 1985 - 30 September 1986. RL-6 room W161, ext. 8919.

--Ying-Hwa Kuo, Atmospheric Analysis and Prediction Division

Ray Fall, University of Colorado. Field of interest: Freezing. 14 October.

--Charles Knight, Convective Storms Division

William Frank, Pennsylvania State University. Field of interest: Convective/mesoscale heat and moisture budgets. 3-4 October.

--Edward Zipser, Convective Storms Division

Eugenia Kalnay, NASA Goddard Space Flight Center. Field of interest: Numerical weather prediction. 21-23 October. ML room 428, ext. 1359.

--Akira Kasahara, Atmospheric Analysis and Prediction Division

Steve Kreuger, University of California at Los Angeles. Field of interest: Turbulence in tropical convection, modeling. 5-8 November. RL-6 room S295, ext. 8951.

--Margaret LeMone, Convective Storms Division

Thomas G. Kyle, Los Alamos National Laboratory. Field of interest: Mountain valley flow. 3-30 September.

--Terry Clark, Convective Storms Division

Rosine Lallement, Aeronomy Service, National Center for Scientific Research, Verrières-le-Buisson, France. Field of interest: Solar wind. 1 November 1985 - 31 January 1986. ML room 591, ext. 1542.

--Thomas Holzer, High Altitude Observatory

George Platzman, University of Chicago. Field of interest: Dynamic meteorology. 14 October-14 December. ML room 424, ext. 1355.

--Akira Kasahara, Atmospheric Analysis and Prediction Division

Kunio Shimizu, Science University of Tokyo, Japan. Field of interest: Lognormal and related distributions. 1 April 1985 - 31 March 1986. RL-6 room E181, ext. 8653.

--Edwin Crow, Convective Storms Division

LIBRARY NEWS

October 18, 1985

LIBRARY SERVICES

* COMPUTER LITERATURE SEARCHING *

The library has literature searches covering the following topics stored on the NASA/RECON databases. These data bases cover about 2 million references to the literature including unclassified NASA reports and articles from about 1000 journals in meteorology, electronics, physics, math, and other subjects relevant to both NASA and NCAR. Literature Search Topics are:

1. Airborne radar in meteorology
2. Batteries of several types
3. Computer hardware or software associated with either the Omega Navigation System or Loran C
4. Doppler radar in meteorology
5. Effect of topography on air pollution transport
6. Humidity measurement
7. Interferometers and satellite observations
8. Laser diodes
9. Lidar
10. Meteorological Atlases
11. Moisture flux
12. Phase locked systems
13. Planetary or atmospheric boundary layer
14. Temperature measurement from aircraft

For the computer output for searches of these and other topics covering any time period from the last month only to 1969 to present contact Gayl Gray X1180.

* * *

My acquisitions recommendation is: _____

for the Mesa, RL-6, RL-3, MAR or RAF Library. (Circle one) Name: _____

* * *

The following material will be displayed in the Mesa Library Oct. 17 - Oct. 24 and in the RL-6 Library Oct. 25 - Nov. 1. New acquisitions announced last week (Oct. 11) are presently on display in the RL-6 Library through Oct. 25. You may reserve them during display for subsequent checkout.

NCAR members located off the Mesa may borrow new books, reports, and microfiche by checking the item of interest below and returning to Gayl Gray.

NEW BOOKS

New books for the Mesa, RL-6, RL-3, MAR and RAF Libraries are in the following list. REFERENCE material does not circulate.

	<u>CALL NUMBER</u>
CENOZOIC ORGANIC CARBON DEPOSITION IN THE DEEP SEA. Sloan, J.L., 1985.	GC117 C37S55 1985 Also in RL-6
UNDERGROUND WORLDS. Jackson, D.D., 1982.	GV200.62 J33 1982
PASCAL. U.S. National Bureau of Standards, 1985.	QA76.5 F39 no. 109 REF
ALPHANUMERIC COMPUTER OUTPUT MICROFORM QUALITY TEST SLIDE. U.S. National Bureau of Standards, 1985.	QA76.5 F39 no. 108 REF

New books continued on next page

NEW BOOKS Continued

CALL NUMBER

THE BOUNDARY VALUE PROBLEMS OF MATHEMATICAL PHYSICS. Ladyzhenskaia, O.A., 1985.	QC20.7 B6L23 1985
PROCEEDINGS: NINTH WORLD METEOROLOGICAL CONGRESS, GENEVA, 2-27 MAY 1983.	QC851 W64 1983
RESOLUTIONS OF CONGRESS AND THE EXECUTIVE COMMITTEE. WMO, 1985.	QC851 W644565 1985 REF
OBSERVATIONS OF CONVECTIVE SCALE TURBULENCE OVER THE TROPICAL OCEAN. Berman, E.A., 1985.	QC880.4 T8B44 1974a
INDOOR AIR AND HUMAN HEALTH. Gammage, R.B., et al., 1985.	RA575.5 I53 1985
INSTRUMENTATION FUNDAMENTALS AND APPLICATIONS. Morrison, R., 1984.	TA165 M64 1984 RL-3
NUMERICAL METHODS IN LAMINAR AND TURBULENT FLOW. Taylor, C., 1985.	TA357 I566 1985 v.1-2
IEEE STANDARD PASCAL COMPUTER PROGRAMMING LANGUAGE. ANSI, 1983.	TA368 Z55 X3.97-1983 REF
ROBOTS AND TELECHIRS: MANIPULATORS WITH MEMORY, REMOTE MANIPULATORS, MACHINE LIMBS FOR THE HANDICAPPED. Thring, M.W., 1983.	TJ211 T57 1983 RL-3
UNDERSTANDING MICROWAVE EQUIPMENT. 1979.	TK7876 U53 c.2 MAR
SECOND INTERNATIONAL CONFERENCE ON THE AVIATION WEATHER SYSTEM. AMS, 1985.	TL556 I56 1985

NEW MICROFICHE

To receive, for your retention, personal microfiche copies of the following, check off the desired report(s) and send to Gayl Gray. Please include your name with your request.

ENGINEERING AND INSTRUMENTATION

- () PB85148450. -- GERRITSEN H J (ET AL), DEVELOPMENT OF SOLID STATE INFRARED EMITTERS FOR GAS DETECTION APPLICATIONS FINAL REPT JUN 80-DEC 83 (1984)
- () DRNLFETEP10. -- SIGAL L L, ENVIRONMENTAL HEALTH AND SAFETY ASSESSMENTS FOR DIRECT COAL LIQUEFACTION VOLUME 8B (1984)
- () SANDB48928. -- KELLER J O (ET AL), EXPERIMENTAL INVESTIGATION OF A PULSE COMBUSTOR FLOW VISUALIZATION BY SCHLIEREN PHOTOGRAPHY (1984)
- () DRNLTM8652. -- HOLTON G A (ET AL), MULTIPLE-PATHWAYS SCREENING-LEVEL ASSESSMENT OF A HAZARDOUS WASTE INCINERATION FACILITY (1984)
- () PB85153435. -- ROBINETTE M J (ET AL), TECHNIQUES FOR PRODUCING AND MEASURING WATER DROPS: A LITERATURE REVIEW (1984)
- () PB85152502. -- MCELROY J H (ET AL), UTILIZATION OF THE POLAR PLATFORM OF NASA'S SPACE STATION PROGRAM FOR OPERATIONAL EARTH OBSERVATIONS (1984)
- () N8514863. -- MUTOH Y, STUDY ON A MEDIUM-SIZED ROCKET WITH BURNOUT FRAME (1984)
- () DOEET103931691. -- MCKENDRICK D, RESEARCH INSTRUMENTATION: OPERATING HISTORY AND THE INSTALLATION OF NEW SYSTEMS (1984)
- () DOEET1039316211. -- SCREENING TESTS REPORT VOLUME I (1984)
- () PNL5272. -- STAPLETON E E, HEDL AIR FILTER EXAMINATION SYSTEM SOFTWARE (1984)

POLLUTION

- () PB85151173. -- COOK Z L (ET AL), BENEFITS OF REGULATING HAZARDOUS WASTE DISPOSAL: LAND VALUES AS AN ESTIMATOR EXECUTIVE SUMMARY FINAL REPT (1984)
- () PB85148682. -- HINTON D O (ET AL), INHALABLE PARTICULATE NETWORK REPORT: OPERATION AND DATA SUMMARY (MASS CONCENTRATIONS ONLY) VOL 1 APRIL 1979- DECEMBER 1982 (1984)
- () PB85148690. -- HINTON D O (ET AL), INHALABLE PARTICULATE NETWORK REPORT: DATA LISTING (MASS CONCENTRATIONS ONLY) VOL 2 APRIL 1979-DECEMBER 1982 (1984)
- () NUREGCR4072. -- LI W W (ET AL), ESTIMATION OF ATMOSPHERIC DISPERSION AT NUCLEAR POWER PLANTS UTILIZING REAL TIME ANEMOMETER STATISTICS (1985)
- () DRNLCS094. -- RARIDON R J (ET AL), ATMOSPHERIC TRANSPORT MODEL FOR TOXIC SUBSTANCES (ATM-TOX) (1984)
- () CONF840180SUMM. -- REPORT ON THE SECOND ANNUAL REVIEW MEETING OF THE NATIONAL ACID PRECIPITATION ASSESSMENT PROGRAM (1984)
- () PB85153534. -- MIGUEL A H (ET AL), SIZE DISTRIBUTIONS OF ELEMENTAL CARBON IN ATMOSPHERIC AEROSOLS (1985)
- () PB85153344. -- WOLFE A C, MICHIGAN PUBLIC OPINION TOWARD MOTOR VEHICLE EMISSIONS INSPECTION FINAL REPT 16 APR 84-30 SEP 84 (1984)
- () WINCD1018. -- ADAMIC M L (ET AL), BASELINE LEVELS OF CONTROLLED POLLUTANTS IN THE VICINITY OF ICPP PROCESSES (1984)
- () BNL35030. -- SHERWOOD S (ET AL), EFFECTS OF ACID DEPOSITION ON MATERIALS AND CULTURAL RESOURCES (1984)
- () DRNLFETEP6. -- ROOP R D (ET AL), ENVIRONMENTAL HEALTH AND SAFETY ASSESSMENTS FOR DIRECT COAL LIQUEFACTION VOLUME 6 (1984)
- () BNL35206. -- BRINK H M TEN (ET AL), CONCENTRATION OF SULFATE IN BROKEN CLOUD LAYERS (1984)
- () BMFTFBT84113. -- LAMBRICH R (ET AL), QUANTITATIVE DETERMINATION OF GASEOUS AIR POLLUTANTS BY /IN GERMAN/ (1984)
- () DOEMC141291655. -- ROBERTS A G, 20-ATMOSPHERE RIG PFBC RESULTS: TESTS 18 AND 19 (1984)
- () DOEMC141291656. -- ROBERTS A G, 20-ATMOSPHERE RIG PFBC RESULTS: TEST 20 INVESTIGATIONS WITH A MEDIUM-VOLATILE CONTENT COAL (1984)
- () DOECE15143T1. -- LIN P W, PROJECT ON SULFUR DIOXIDE REMOVAL AND WASTE PRODUCTS UTILIZATION PROCESS FINAL REPORT (1984)

JOB OPENINGS

October 16, 1985

NCAR is an equal opportunity/affirmative action employer.

Salaries for new employees and for current employees receiving reassignments will be between the range minimum and maximum shown for each job. Specific starting salaries are determined by comparing the applicant's qualifications with the job requirements and assessing expected performance levels.

APPLICATIONS/SYSTEMS PROGRAMMER II OR III - #0446

AAP - Climate Section, CO2 Project
Exempt Range: 61, \$25,566 - 38,348/year
(level II)
62, \$30,679 - 46,019/year
(level III)

DUTIES: Writes scientific applications software for the analysis of general circulation climate models of the atmosphere, the ocean and sea ice. Writes systems interface software to facilitate the analysis of model data on microcomputers, minicomputers such as VAX and PDP-11 as well as large computers such as the CRAY-1 and CRAY-XMP at NCAR and elsewhere. Develops a working knowledge of the COS and CTSS operating systems software and hardware in order to write and modify system interfaces and to assist in diagnosing system interface and operating system malfunctions. Participates and assumes responsibilities for some aspects of the specification, design or procurement, and installation of hardware and software replacements or enhancements. Consults with users. Develops skills in state-of-the-art software development methodologies and their applications.

ADDITIONAL DUTIES (level III): Develops advanced scientific applications software for the analysis of general circulation models of the atmosphere, ocean and sea ice climate models. Advises on and develops programs to solve complex scientific problems using advanced techniques and advanced programming skills. Works independently and receives minimal supervision. Participates in and assumes responsibility for the overall aspects of the specification, design or procurement, and installation of hardware and software replacements or enhance-

ments. Documents software development strategies and techniques used, writing for skilled programming audiences as well as for scientific user audiences with little or no programming expertise.

REQUIRES:

- B.S. in computing science, mathematics, engineering, physical science or the equivalent combination of education and skills
- Demonstrated skill in writing easily modifiable, portable and user friendly applications and systems software
- Demonstrated skill in FORTRAN programming
- Demonstrated skill in hardware-software interfacing techniques
- Demonstrated skill in establishing priorities and working with minimal supervision
- Good communication skills, both oral and written
- Working knowledge of state-of-the-art software development methodologies and their applications
- Willingness to work weekends or evenings as required
- Willingness to travel occasionally to non-NCAR computer centers

ADDITIONAL REQUIREMENTS (level III):

- M.S./M.E. in computing science, mathematics, engineering, physical science or the equivalent combination of education and skills
- Demonstrated skill in completing projects in a responsive and timely manner
- Working knowledge of computer system architecture, including operating systems and local area networks
- Demonstrated skill in the application of state-of-the-art software development methodologies
- Demonstrated skill in working with large and complex data sets and codes

- Demonstrated skill in problem analysis
 - Demonstrated skill in documenting, publishing and explaining software development strategies and techniques to non-programmers and/or inexperienced programmers
 - Demonstrated skill in collaborating with users on software specifications and modifications
- Nancy Lippincott, X8729

COMMUNICATIONS/NETWORK SPEC. IV - #0436

SCD - Systems Section
 Exempt Range: 63, \$36,814 - \$55,222/year
 DUTIES: Installs, develops, maintains, documents and implements satellite-based communications software connecting NCAR's SCD facilities with remote sites at university and with the National Science Foundation specified hubs, including any terrestrial communications systems used to back up or enhance the satellite system; develops gateway software and assists with the interfaces to the local area network software utilizing Ethernet and Network Systems Corporation HYPERchannel. Measures the performance of satellite and terrestrial communications systems including adjusting the operating parameters to assure best satellite performance. Provides expert consulting to all parties on the satellite link software and hardware to include lecturing and serving on internal and external professional committees; participates in long-range planning and future system analysis, i.e., plans for upgrading and expanding the satellite network. Participates in extensive on-line pre-acceptance shakedown and compatibility testing to determine when any new equipment is ready for the formal Acceptance Test Period (ATP); during the ATP, helps monitor the equipment performance. Maintains and extends state-of-the-art skills in satellite link software. Participates in writing technical proposals, documentation and quarterly reports; writes documentation as required to provide a complete communications system document.

REQUIRES:

- M.S. in computer science, mathematics, engineering or physical science or equivalent combination of education and experience
- Demonstrated skill in carrying a complex communications project from inception to completion
- Expert knowledge of high-speed (56kb and above) ground to satellite-based data communications

- Willingness to travel to university sites for extended periods of site installation and consulting
- Skill in working effectively as a member of a team and on projects of a more independent nature
- Skill in oral and written communications

DESIRED, BUT NOT REQUIRED:

- Familiarity with the following protocols and network architecture: TCP/IP, ISO-OSI, HASP, IBM binary synchronous, SNA X.25, Ethernet, NSC-NETEX and/or DECNET
 - Skill in using the following languages: FORTRAN-77, PL1,C,IBM 370 BAL, and/or CRAY-CAL
 - Working knowledge of the following computer hardware and software systems: IBM System 370 (VM/SP and MVS), CRAY (COS and CTSS), DEC VAX 11/780 and/or VAX 8600 (VMS and UNIX)
 - Skill in planning for communications-systems software development to meet university community needs and maintain cost effectiveness
 - Skill in interacting effectively and coordinating work with individuals from different disciplines and university communities
- Nancy Lippincott X8729

DATA COMMUNICATIONS ENGINEER III - #0454

SCD - Maintenance Group
 Exempt Range: 58, \$31,678-47,516/year
 DUTIES: Integrates, tests and documents all electronics of the ground based portion of a multi-drop bi-directional satellite based data communication system connecting SCD to multiple remote sites at universities and all NSF defined remote hubs. Coordinates the installation of telephone-company-owned telecommunications circuits. Uses data and signal analyzers to develop and optimize current and planned network communication systems. Designs and oversees development of specialized communication interfaces needed to attach host equipment and remote user systems to existing and planned communication links. Participates in documentation efforts. Travels to remote sites and installs or repairs data communication equipment and interfaces. Works closely with SCD Systems Software personnel in solving complex hardware-software interface problems. Interacts with SCD users and user groups effectively in establishing needs, establishing solutions for a variety of communication problems.

REQUIRES:

- M.S. in electrical engineering or computer science, or the equivalent combination of education and experience
- Skill in analyzing and isolating faults in computer related communication equipment
- Skill in using electronic test equipment such as oscilloscopes and data analyzers
- Thorough knowledge of digital data communication techniques
- Expert knowledge of EIA RS-232 and RS-449
- Thorough knowledge of co-axial transmission techniques
- Thorough knowledge of network peripherals
- Thorough knowledge of data communication switching and routing techniques, multiplexing and error correction systems
- Working knowledge of microwave, UHF and VHF radio transceiver theory and modulation techniques
- Working knowledge of TCP-IP
- Willingness to travel as much as 60 days per year

ALSO DESIRED, BUT NOT REQUIRED:

- Working knowledge of higher level communications packages such as IBM 2780/3780 bisynchronous and HASP
- First class FCC license
- Working knowledge of DEC VMS operating system

Nancy Lippincott, X8729

DATA COMMUNICATIONS SUPPORT PROGRAMMER
III - #0439

SCD - User Services Section
 Exempt Range: 62, \$30,679 - \$46,019/year
 DUTIES: Provides expertise in the area of networking and computer communications, especially as related to remote networks, computers, workstations, remote job entry and terminals. Documents, operates and assists local and remote users with various types of data communications and networking equipment and software, including the above systems, modems, multiplexors, and network gateways. Documents, tests and assists users with communication protocols and networks, including X.25, TCP/IP, binary synchronous remote batch protocols asynchronous TTY, and others. Provides support for various networks (NCAR Local Hyperchannel Network, local and remote ethernet, and national networks), supporting such services as file transport, remote log-in, electronic mail, and process-to-process functions in order to

provide access to mainframe and super-computers. Participates in the enhancement of system/data communication software; and in workstation and/or personal computer projects as a data communications specialist. Evaluates available data communications systems and software, making recommendations regarding development, acquisition and/or support.

REQUIRES:

- M.S. in computer science, engineering, mathematics or related physical science or the equivalent combination of education and experience
- Demonstrated expertise in communications hardware and software systems
- Demonstrated skill in dealing effectively with a diverse community of users of varying skills and knowledge levels in a professional and pleasant manner
- Demonstrated skill in working well in either a group or independent environment
- Demonstrated high level communication skills, both oral and written

ALSO DESIRED, BUT NOT REQUIRED:

- Working knowledge of packet switching, value added or X.25 protocols
- Working knowledge of the implementation of protocols, especially TCP/IP with the Arpanet suite of protocols and other similar protocols
- Working knowledge of the utilization of Ethernet, local area networking, and the interconnection of local networks
- Working knowledge of networking on UNIX systems
- Working knowledge of satellite communications hardware and software systems
- Working knowledge of remote accessing by ASCII terminals and personal computers with terminal emulators via a value added network and/or through a mini or mainframe computer
- Working knowledge of IBM 2780/3780 and HASP protocols
- Working knowledge of several operating systems, to include IBM VM/SP, RSCS, VAX VMS, and UNIX

Nancy Lippincott X8729

FISCAL ASSISTANT - #0457

ATD - Research Aviation Facility
 Non-Exempt Range: 27, \$1,305 - 1,695/month
 DUTIES: Compiles information from group managers and assists in the preparation of the Quarterly Management Report; composes and generates internal and external correspondence from the Fiscal

Officer; maintains the Fiscal Office files; prepares, reviews, logs, and files purchase requisitions, travel authorizations, and travel vouchers; completes forms for money advances for overseas operations; completes State Department Clearance requests based on input from Flight Operations; logs fuel-ticket copies of purchases and invoices and submits them to NCAR finance office; provides estimate of fuel costs for planned RAF aircraft operations in support of research programs; assists the Fiscal Officer in the analysis and development of monthly budget status and project reports and in setting up and tracking blanket purchase orders; assists Fiscal Officer in establishing budget sheets; provides computer input; maintains the Petty Cash fund at RAF which includes the sale of postage stamps; assists in the oversight of the RAF physical plant and grounds regarding office moves, telephone problems, and building maintenance; issues visitor passes, building keys, and security entrance system cards; performs other clerical duties such as typing, filing, answering phones and copying; and assists other RAF secretaries as necessary.

REQUIRES:

- Skill at accurate typing of approximately 60 WPM
- Skill at word processing
- Skill at editing documents for punctuation and grammar
- Skill at taking oral dictation or transcribing machine dictation
- Skill at computer data entry
- Skill at computations in arithmetic
- Basic skill at accounting or bookkeeping
- Demonstrated skill at effective communications, both oral and written
- Demonstrated skill in English spelling, grammar, and composition
- Demonstrated organizational skills
- Demonstrated skill at performing detailed work in an accurate manner
- Demonstrated skill at setting and accomplishing work priorities, many times under tight deadlines
- Working knowledge of modern office procedures and practices

ALSO DESIRED, BUT NOT REQUIRED:

- Skill in the use of computer generated spread sheets
- Familiarity with MICOM word processing system

Debi Koepke X8728

MANAGER, HAO COMPUTING SERVICES GROUP -
#0450

HAO - Computing Services Group

Exempt Range: 79, \$39,936-59,904/year

DUTIES: Proposes, recommends, monitors and implements policies relating to the use of the HAO and NCAR computing facilities. Participates in both HAO and NCAR advisory committees on computer related subjects. Assumes lead responsibility for maintaining state-of-the-art systems for HAO computing, including system design and participation in specification and procurement of hardware. Participates in the systems software specification and control, including detailed planning, specification, program design and implementation for multi-user software. Participates in the generation of and monitors the budget for the group. Assesses the projected needs and capabilities for the HAO computational system and recommends operating guidelines and controls regarding its use. Participates in the planning and establishment of procedures and maintenance schedules for the HAO computing machines and their associated peripherals; oversees the implementation of the maintenance plan. Defines, develops and implements the requirements for documentation of the HAO system; reviews, adds to and/or modifies the documentation. Establishes, implements and/or recommends internal or external training programs for personnel in computational skills. Assigns applications programmers to specific scientific support tasks with the guidance of the Director's Advisory Committee; monitors, modifies and supervises the performance of those assignments. Supervises employees in ways consistent with UCAR policies and with its equal employment opportunity and affirmative action programs, including selection, training, career development, work assignments, discipline, termination, performance reviews and salary actions. Works with scientific staff and visitors on scientific problems, including the definition, design and implementation of systems, image processing or applications programs. Serves as a consultant to the scientific staff on a wide range of computing problems.

REQUIRES:

- B.S. in computer science, physics, astrophysics or related discipline or equivalent combination of education and experience
- Demonstrated skill in supervising personnel
- Demonstrated skill in effective written and oral communication

- Demonstrated skill in systems, image processing or applications programming, with the latter relevant to problems in physics or astronomy
- Demonstrated skill in the use of minicomputer systems
- Skill in communicating effectively with scientific staff, both with regard to computing services and scientific analyses
- Skill in long range planning and budgeting

ALSO DESIRED, BUT NOT REQUIRED:

- Knowledge of large computing systems and their interfaces
- Knowledge of the Digital Equipment Corporation 11/70 and VAX-class machines
- Working knowledge of UNIX operating systems

Becky Foco, X8710

CASUAL

STUDENT ASSISTANT II - #0460

ATD - Research Applications Program

Flat Rate: \$6.90/hour

DUTIES: Provides technical assistance with analysis of meteorological Doppler radar, rawinsonde, and surface mesonet data to include analysis of data collected from the Joint Airport Weather Studies Project, the Classify, Locate, and Avoid Wind Shear Project, and the Terminal Doppler Weather Radar Program. Reduces, plots, and analyzes data acquired from surface observing networks and radar in convective storms. Performs hand calculations, compiles statistics, draws graphs, performs basic analysis, and runs computer programs in the research area of low-altitude wind shear. Work is related to the development of wind shear warning systems for aviation safety.

REQUIRES:

- Willingness to tabulate, plot, and analyze meteorological data
- Willingness to process meteorological data using interactive computer and display system (VAX 780), batch processing computer (CRAY I), and Micro-VAX II
- Willingness to work on weekends and after normal working hours
- Basic skill in computer programming in FORTRAN
- Basic skill at mathematical computations as would be acquired by a semester of calculus
- Skill at performing tasks requiring careful attention to detail, neatly and accurately
- Ability to work up to 20 hours per week during periods school is in session, and full-time during breaks
- 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

DESIRED, BUT NOT REQUIRED:

- Student who is studying meteorology or other physical science at the college level

NOTE: This is a term position through September 30, 1987 subject to funding.

Debi Koepke X8728

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

CALENDAR NOTES

October 21st through October 28th

MONDAY, October 21st

OPEN

TUESDAY, October 22nd

- AAP Seminar -- Mechanistic Experiments to Determine the Origin of Southern Hemisphere Stationary Waves -- Eugenia Kalnay, Goddard Laboratory for Atmospheres

3:30 p.m.
NCAR Mesa Lab, Main Seminar Room

WEDNESDAY, October 23rd

- Presentation -- ETA Supercomputer Architecture Video

1:10 p.m. & 1:50 p.m.
NCAR Mesa Lab, Damon Room

THURSDAY, October 24th

- 25th Anniversary Seminar Series
 - WIMPs and the Solar Neutrino Flux -- Ronald Gilliland, NCAR/HAO
9:00 a.m.
NCAR Mesa Lab, Main Seminar Room
 - Climate Evolution on Earth and Venus -- James Kasting, NASA/Ames
10:45 a.m.
NCAR Mesa Lab, Main Seminar Room
 - Large Eddy Simulations of a Cumulus Convection -- Piotr Smolarkiewicz, NCAR/CSD
1:30 p.m.
NCAR Mesa Lab, Main Seminar Room
 - Hail Formation in Storms -- Brante Foote, NCAR/CSD
3:15 p.m.
NCAR Mesa Lab, Main Seminar Room

THURSDAY, October 24th (Continued)

- ATD/CSD Seminar -- Fronts: Recent Progress on Analysis of Data Collected in S.W. France -- Frank Roux, Centre de Recherches en Physique de L'Environnement

3:30 p.m.
RL-3, Room 620

FRIDAY, October 25th

- 25th Anniversary Seminar Series
 - Thermal Convection in Rotating Shear Flows -- Richard Somerville, Scripps Institution of Oceanography
9:00 a.m.
NCAR Mesa Lab, Main Seminar Room
 - A Strategy for Measuring Tropical Rain From Space -- Gerald North, NASA/Goddard
10:45 a.m.
NCAR Mesa Lab, Main Seminar Room
 - Three-Dimensional Modeling of the Troposphere-Stratosphere System -- Byron Boville, NCAR/AAP
1:30 p.m.
NCAR Mesa Lab, Main Seminar Room
 - Modeling in Paleoclimatology -- Eric Barron, University of Miami
3:15 p.m.
NCAR Mesa Lab, Main Seminar Room

MONDAY, October 28th

OPEN

Calendar Notes announcements may be mailed to Holly Hatton, ML 140. Wednesday at 12:00 Noon is the deadline for items to be included into Calendar Notes.