

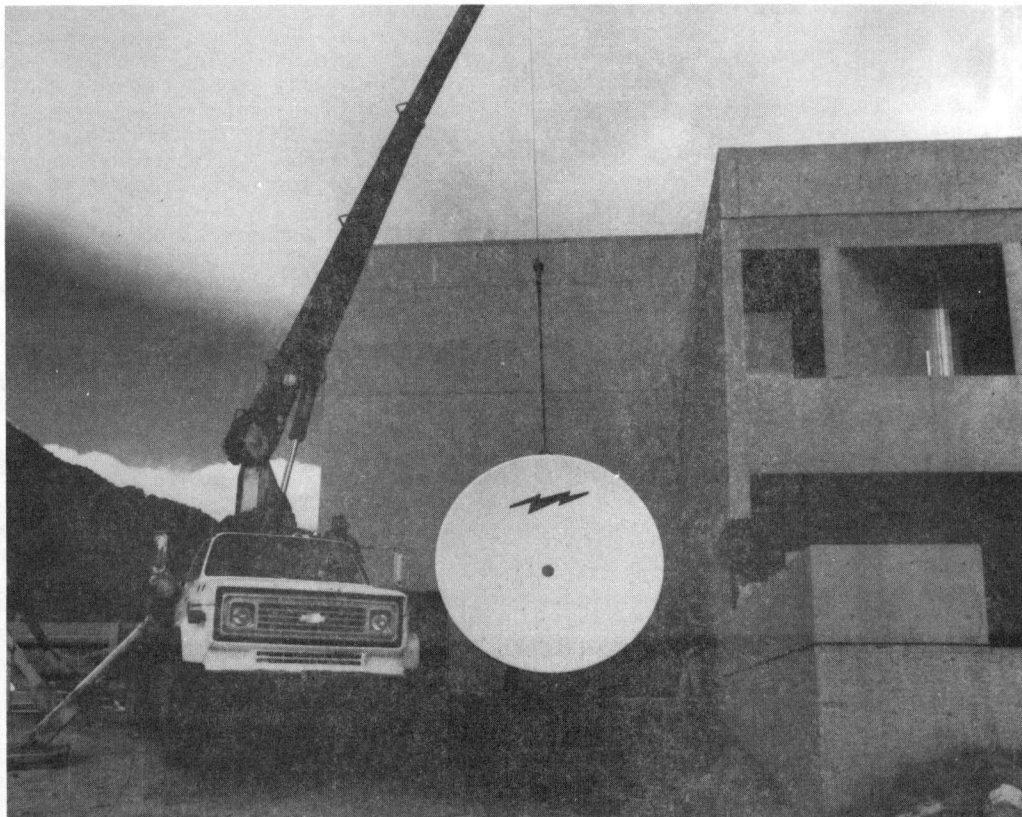
STAFF NOTES

NATIONAL CENTER FOR ATMOSPHERIC RESEARCH

Vol. 21, No. 6

7 February 1986

NCAR TO TEST HIGH-SPEED DATA COMMUNICATIONS SYSTEM



A new antenna has been installed just outside the Mesa Lab's cafeteria. It is part of a new program to test high-speed data communications via satellite. (Photo by Charles Semmer.)

The Mesa Laboratory has sprouted a new dish antenna. Tucked against the southwestern corner of the building, where the cafeteria wall meets the patio, the 3.7-meter antenna (or earth station) is part of an experimental program for satellite communications funded by the National Science Foundation's Office of Advanced Scientific Computing (OASC), not an attempt to pick up HBO.

"As part of its supercomputing access initiative, NSF is exploring more efficient and cost-effective ways of communicating data," explained Gregory McArthur (Scientific Computing Division), "and SCD was awarded a grant to test a high-speed, high-bandwidth satellite communications system. The ultimate purpose of the initiative is to provide access to supercomputing technology to all NSF

This Week in *Staff Notes* . . .

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grantees," he added, "and data communications is an integral part of the initiative."

The pilot project, called the University Satellite Network (USAN) project, will link NCAR with five universities via GSTAR-1, a geostationary communications satellite owned by GTE. The project is being managed at NCAR by SCD's Bernie O'Lear. From within the division, Joseph Choy is providing user services support; B. Lynn Irwin, systems software support; and Steven Chapel, hardware support. Greg is the administrative services liaison between SCD and both the OASC and the USAN member universities.

The institutions being linked through USAN are the universities of Maryland, Miami, Michigan, Wisconsin, and Oregon State. After the grant was awarded, the University of Illinois and Woods Hole Oceanographic Institution asked to join the project. "The project members were selected by NSF's OASC," Greg said, "based on a list of institutions mutually acceptable to both UCAR and the OASC."

The project is now in its first stage: installing the necessary equipment at NCAR and the remote sites. The goal is to have the equipment in place at one university (Illinois) by the end of February, with all sites fully equipped by the end of the year.

Once the equipment is in place at NCAR and the University of Illinois, SCD will begin experimenting with transmitting and receiving data. How does the size of the file being transmitted affect the error rate? How fast can files of varying sizes be

for data transmission via land lines? What will be the varying loads on USAN's gateway computer (the equipment that directs data traffic between SCD's local area network and the remote USAN members)?

"USAN earth stations will use the KU band for its communications through equipment manufactured by Vitalink Communications Corporation. The KU bandwidth operates at higher frequencies [11-14 GHz]," Greg explained, "and should prove to be faster, more reliable, and more economical than traditional data communication technologies such as packet-switching networks or remote job entry stations. Data will be transmitted from NCAR at a rate of 224 Kbps [kilobits per second]. The universities in turn will transmit to NCAR at 56 Kbps. The technology involved is new to NSF and to us," he added. "For some kinds of files, we may find that land lines are more efficient. We just don't know, and it's all part of the pilot project to find out."

USAN is slated to run until 30 June 1987. While NSF has provided funds to cover all the equipment involved, the necessary licensing fees, the installation costs, and the transponder costs, SCD is contributing the time of the staff members listed above as well as the use of its existing equipment. "If the system runs as well as we anticipate, it will be a tremendous boon to our remote users," Greg remarked. "For the first time they will have a high-speed link to NCAR's supercomputers--a far cry from the current RJE [remote job entry] access, which is slow and expensive."

•SB

NEW TELEPHONE SERVICE BEGINS NEXT WEEK

NCAR's telephone system will undergo a quiet transformation next week. Long-distance calls are currently handled by ten FTS (for federal transmission system) lines. Next week, NCAR will switch from FTS to SPRINT.

"We've had some problems with FTS," explains George Lamb (manager of Physical Facilities Services). "The ten lines were not enough for our traffic during peak hours, and adding more lines transmitted? How do these rates compare to those

with FTS was difficult. Furthermore, FTS covers calls within the United States only [including Alaska, Hawaii, Puerto Rico, and the Virgin Islands]. By switching to SPRINT, not only will we be able to add more lines (we plan to have 13 initially), but people will be able to dial overseas without operator assistance."

The new service will be installed next week. The transition should be completely invisible, with one exception: sometime next week, dialing 7 will no longer give you a long-distance line. Instead, long-distance lines will be accessed exactly as are outside, local calls, by dialing 9 + area code + telephone number.

To make an overseas call, you must dial 9 + 011 (the code for overseas) + country code + city code (if any) + telephone number. Many areas of the world, however, are not served by SPRINT. If you are dialing one of these, you will receive a recorded message to that effect. In that case, dial 9 + 10 + 288 (this combination will access AT&T's direct dial lines) + 011 + country code + city code (if necessary) + number.

(Continued)

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Production Assistant: Anatta

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NCAR now also has a system for keeping track of all calls. Starting at the end of February, each division office will receive a monthly statement listing all external calls made from each extension within the division. The system produces printouts listing the extension, date, time, division, line used, number called, city, state, duration (in hours, minutes, and seconds), and the calculated cost of the call. It will be up to each division to verify the propriety of the calls.

"These changes should give us better service," George notes, "and we hope that the new lines will reduce the frustration of people trying to make long-distance calls." NCAR will still maintain three incoming FTS lines. People at other federal institutions on the system can still dial 320 + an NCAR extension on FTS to reach someone at NCAR.

●SB

ANNOUNCEMENTS

ANY INTEREST IN TEX FOR PCS?

David Makowski (Administration Division) has contacted Personal-TEX and Addison-Wesley about site licenses for PC-TEX and MicroTEX. (Both are text formatting software for personal computers.) A site license would give NCAR the right to make unlimited copies of a software package for institutional use. The license for PC-TEX is \$6,000 and that for MicroTEX is \$7,500; NCAR would select only one.

In order for NCAR to break even on the license, 30 people would need to purchase the package. With that many users, a dot matrix driver and the TEX software could be offered to each person for about \$200. Obviously, the more users, the less expensive the package will be.

If there is not sufficient interest to warrant purchasing a site license, Administrative Computing will consider a quantity discount. Under this option, the cost of PC-TEX is \$155 and a PC-DOT drive is \$55. PREVIEW, the driver for the Hercules graphics card, costs \$230. The quoted prices from Addison-Wesley are higher: \$250 for the TEX software and \$100 for a driver. To acquire any of these discounts, however, NCAR would need to place an order totaling at least \$750.

If NCAR pursues the discount option, Dave anticipates placing more than one order over the next several months. As soon as Administrative Computing has the minimum order amount (\$750), they would place the order. The process would be repeated when the minimum was reached again.

If you have questions about TEX packages or you would like to acquire TEX, either for your NCAR PC or for your own PC, please contact Dave, ext. 8882, by 14 February.

PHOTOGRAPHICS TO BE CLOSED

The Photographics Lab will be closed on 21 and 24 February while NCAR's photographers attend the regional photographics conference. If you have business with the lab, please note these dates on your calendar and plan to schedule your work with them accordingly.

These dates will also affect assistance with audiovisual equipment. If you will need any special equipment or if you have questions about existing equipment, please call Photographics, ext. 1188, as soon as possible.

DIRECTORY UPDATE

	<i>Room</i>	<i>Ext.</i>
Betsy Alves	ML 284	1504
Lynne Andrade	ML 145	
Edward Ash	ML 15C	1307
Donna Converse	ML 15C	1237
Michael Ernst	ML 145	1309
Belinda Housewright	ML 6	
Shun Der Ko	Lib. car. 16	1366
Kurt Kohne	ML 15C	1307
Sue Long	ML 6A	
Kathy Lucero	ML 6	
Donald Morris	ML 35	
Richard Sato	ML 135A	
Paul Seagreaves	ML 583	
Tatjana Sizer	ML 145	
Kathryn Strand	ML 243F and 285	

SAS SEMINARS

The Scientific Computing Division will be giving three seminars on SAS, a statistical package available on the IBM 4341 system. The package includes procedures for most standard statistical techniques and, in addition, facilities for data management, programming, and generating reports. Its statistical techniques include linear regression, nonlinear regression, correlation, frequency tables, discriminant analysis, analysis of variance, spectral analysis, ARIMA modeling, and regression with autoregressive errors.

The classes will emphasize the basics of using SAS on the IBM 4341: inputting data into SAS; performing transformations, sorting, merging, and reformatting data sets; SAS macros; two-dimensional printer plots; and descriptive statistics.

(Continued)

4/Staff Notes/7 February 1986

The seminars will be held on 13, 18, and 20 February, 10:00-11:00 a.m., in the Director's Conference Room. If you are interested in attending these lectures, please contact Ginger Caldwell, ext. 1229.

CAFETERIA NEWS

The Wednesday lunch special for next week (12 February) will be Salisbury steak with mushroom gravy, potatoes, a vegetable, tapioca pudding, and coffee or tea, all for \$3.50.

The breakfast special for next week will be biscuits and sausage gravy for \$2.25.

The winner of this week's free lunch is

PAUL SPERRY

VISITORS

Rob Bragin, Quest Productions, San Francisco, California. Field of interest: NCAR research. 14 February. RL-6 room 103, ext. 8721.
--Joan Frisch, Media Relations and Information Services

Wallace Broecker, Lamont-Doherty Geological Observatory. Field of interest: Oceanography/glaciology. 11 February. ML room 512, ext. 1632.
--Stephen Schneider, Advanced Study Program

Robert Howard, National Solar Observatory, Tucson, Arizona. Field of interest: Solar physics. 3-7 February.
--Peter Gilman, High Altitude Observatory

Helene LeTexier, University of Colorado. Field of interest: Atmospheric chemistry. 5 January-15 June. ML room 168A, ext. 1446.
--Rolando Garcia, Atmospheric Chemistry Division

Paola Rizzoli, Massachusetts Institute of Technology. Field of interest: Meteorology/oceanography. 27-30 January.
--William Holland, Atmospheric Analysis and Prediction Division

Anneke Sengers, National Bureau of Standards, Gaithersburg, Maryland. Field of interest: Cloud physics instrumentation. 30 January.
--James Dye, Convective Storms Division

Jenifer Serafin, University of Colorado. Field of interest: Biosphere-atmosphere interactions. 28 January-30 September. ML room 020, ext. 1453.
--Patrick Zimmerman, Atmospheric Chemistry Division

Guy Spitale, Jet Propulsion Laboratory. Field of interest: Solar wind. 3-7 February.
--Victor Pizzo, High Altitude Observatory

Alain Colin de Verdiere, Brittany Oceanographic Center, Brest, France. Field of interest: Oceanography. 27-31 January.
--William Holland, Atmospheric Analysis and Prediction Division

The following people will attend the UCAR Board of Trustees meeting in Boulder on 9-11 February:

James Anderson, Harvard University
Roscoe Braham, University of Chicago
John Byrne, Oregon State University
Harlan Cleveland, University of Minnesota
John Evans, COMSAT Laboratories
James Fletcher, University of Pittsburgh
John Geisler, University of Utah
William Gordon, Rice University
Walter Hitschfeld, McGill University
Richard Orville, State University of New York at Albany
Robert Sievers, University of Colorado
Jesse Stephens, Florida State University
Robert Street, Stanford University
Verner Suomi, University of Wisconsin at Madison
Giorgio Tesi, National Science Foundation
Thomas Vonder Haar, Colorado State University

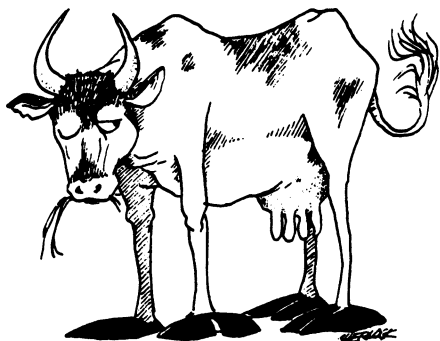
The following people will participate in the UCAR Scientific Programs Evaluation Committee (SPEC) review panel for the Atmospheric Chemistry Division (12-14 February):

Daniel Albritton, National Oceanic and Atmospheric Administration
John Birks, University of Colorado
William Chameides, Georgia Institute of Technology
Roland Drayson, University of Michigan
Robert Duce, University of Rhode Island
Dieter Ehhalt, Max Planck Institute for Chemistry, Julich, F.R.G.
Thomas Graedel, AT&T Bell Laboratories
Jennifer Logan, Harvard University
Volker Mohnen, State University of New York at Albany
Mario Molina, Jet Propulsion Laboratory
Jarvis Moyers, National Science Foundation
Karl Turekian, Yale University
John Winchester, Florida State University

LIBRARY NEWS

February 7, 1986

LIBRARY SERVICES



Confused by claims of the extraordinary capabilities and performance of PC software packages by their producers? Would you like to test a program before spending hundreds of dollars? The Library can help!! Through the library's membership in the Bibliographical Center for Research in Denver, you can borrow software demonstration disks. BCR's collection includes a variety of IBM and Apple packages, including word processing, database managers, bibliographic and text file managers, spreadsheets, accounting, project management, graphics, and integrated systems. Reviews of the program as well as literature from the producer are sent with the demo disks. Loan is for two weeks. There is a \$10.00 per package charge. For more information, call Karon Kelly at x1182.

* * *

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 Feb. 6 - Feb. 13, and in the RL-6 Library Feb. 14 - Feb. 21. New acquisitions announced last week (Jan. 31) are presently on display in the RL-6 Library through Feb. 14. 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, RAF and MAR Libraries are in the following list. Reference material does not circulate.

	<u>CALL NUMBER</u>
MICROWAVE REMOTE SENSING: ACTIVE AND PASSIVE. Ulaby, F.T., et al., 1981.	G70.6 U4 1981 v.1-2 MAR
CLIMATIC MAP SERIES. New Zealand. Meteorological Service. 1984.	G9081 C8 1984 N398 in Map Drawers
KISTER'S ATLAS BUYING GUIDE. Kister, K.F., 1984.	GA300 K58 1984 in REF Dep
INVENTORY OF NATURAL HAZARDS DATA RESOURCES IN THE FEDERAL GOVERNMENT. Lander, J.F., 1979.	GB5014 L25 1979 in RefDep
THE ROLE OF THE OCEANS IN THE ATMOSPHERIC CYCLE OF CARBONYL SULFIDE. Johnson, J.E., 1985.	GC190.2 J578 1985b Also in RL-6
SIMULATION AND SYSTEMS ANALYSIS IN AGRICULTURE. Csake, C., 1985.	HD1433 C7513 1985b
THE AUTHORITY OF EXPERTS: STUDIES IN HISTORY AND THEORY. Haskeil, T.L., 1984.	TD8038 A1A88 1984
PASCAL PROGRAMMING. Atkinson, L., 1980.	QA76.73 P2A86 1980 c.2
AN INTRODUCTION TO PROGRAMMING AND PROBLEM SOLVING WITH PASCAL. Schneider, G.M., et al., 1982.	QA76.73 P2S36 1982
THE SOFTWARE CATALOG. Science and engineering; produced from .MENU. 1985.	QA76.753 S66 1985
INTRODUCING THE UNIX SYSTEM. McGilton, H., et al., 1983.	QA76.8 U65M38 1983 c.5
AN INTRODUCTION TO NUMERICAL ANALYSIS. Atkinson, K.E., 1978.	QA297 A84 1978 c.2
STATISTICAL ANALYSIS OF MEASUREMENT ERRORS. Jeach, J.L., 1985.	QA275 J34 1985
ANALYSIS OF EXPERIMENTS WITH MISSING DATA. Dodge, Y., 1985.	QA279 D63 1985
FACTORIAL DESIGNS. Raktoe, B.L., 1981.	QA279 R35 1981
INTRODUCTION TO NUMERICAL COMPUTATIONS. Vandergraft, J.S., 1983.	QA297 V28 1983 c.2 in RL-6
RECENT TOPICS IN NONLINEAR PDE. Mimura, M., et al., 1984.	QA374 R39 1984
INTRODUCTION TO CALCULUS AND ANALYSIS. Courant, R., et al., 1965.	QA303 C838 1965 v.1
INTEGRAL EQUATION METHODS IN SCATTERING THEORY. Colton, D.L., 1983.	QA431 C59 1983

New books continued on next page

NEW BOOKS continued

	CALL NUMBER
THEORY OF THERMODYNAMICS. Waldram, J.R., 1985.	QC311 W25 1985
ABRIDGED FINAL REPORT. WMO. Commission for Hydrology. 1984.	QC851 W64448 1984
INTERNATIONAL CONFERENCE OF THE COMMISSION ON ATMOSPHERIC CHEMISTRY AND GLOBAL POLLUTION. IAMAP, 1982.	QC879.6 S94 1979
ANALYSE OBJECTIVE VARIATIONNELLE DES CHAMPS DE VENT DANS UN DOMAINE A TOPOGRAPHIE COMPLEXE. Racher, P., 1983.	QC880.4 A8R23 1983
DETECTION AND ANALYSIS OF CLEAR AIR TURBULENCE USING RADAR AND OTHER SENSORS. Plunkett, A.B., 1985.	QC880.4 T8P55 1970a
PROCEEDINGS OF WORKSHOP ON THE DYNAMICS OF LONG WAVES IN THE ATMOSPHERE. 1984.	QC880.4 W67 1984
ABSORPTION AND SCATTERING OF LIGHT BY SMALL PARTICLES. Bohren, C.F., 1983.	QC882 B63 1983 c.2 in RL-6
WORKSHOP ON CLOUD COVER PARAMETERIZATION IN NUMERICAL MODELS. ECMWF, 1985.	QC920.7 W63 1984 Also in RL-6
ADVANCES IN PHOTOCHEMISTRY. 1986.	QD601 A1A28 v.13
TECHNICAL WRITING: STRUCTURE, STANDARDS, AND STYLE. Bly, R.W., et al., 1982.	T11 B63 1982 c.3
AEROSOLS, AN INDUSTRIAL AND ENVIRONMENTAL SCIENCE. Hidy, G.M., 1984.	TP244 A3H53 1984 c.2 RL-6
WHO'S WHO IN LIBRARY INFORMATION SERVICES. Lee, J.M., et al., 1982.	Z720 A4W45 1982 in REF
THE CHALLENGE OF INFORMATION TECHNOLOGY. Brown, K.R., 1983.	Z1008 F5 1982

NEW TECHNICAL REPORTS

ATMOSPHERIC SCIENCE

23289. -- TADA K (ET AL), MEAN FORECAST ERROR AND DIABATIC HEATINGS OF THE OPERATIONAL JMA SPECTRAL MODEL (1985)
23290. -- FEIGELSON E M (ED) RADIATION IN A CLOUDY ATMOSPHERE = (RADIATSIYA V OBLACHNOI ATMOSFERE) (1985)
23290. -- FEIGELSON E M (ED) RADIATION IN A CLOUDY ATMOSPHERE = (RADIATSIYA V OBLACHNOI ATMOSFERE) RL-6 C.2 (1985)

GENERAL REPORTS

23291. -- BIENNIAL REPORT 1983-84 GEOPHYSICAL INSTITUTE UNIVERSITY OF ALASKA FAIRBANKS, ALASKA (1985)
23292. -- BIENNIAL REPORT 1982-84 UNIVERSITY OF EAST ANGBIA CLIMATIC RESEARCH UNIT (1985)
23293. -- WEATHER MODIFICATION FIRST ANNUAL REPORT, 1959 (1960)
23294. -- WEATHER MODIFICATION SECOND ANNUAL REPORT, 1960 (1961)
23295. -- WEATHER MODIFICATION THIRD ANNUAL REPORT, 1961 (1962)
23296. -- WEATHER MODIFICATION FOURTH ANNUAL REPORT, 1962 (1963)
23297. -- WEATHER MODIFICATION FIFTH ANNUAL REPORT, 1963 (1964)
23298. -- SCIENCE AT P R L 1984-85 (PHYSICAL RESEARCH LABORATORY, AHMEDABAD, INDIA) (1985)
23299. -- SIMMONS R C (ED) ANNUAL REPORT--FISCAL YEAR 1984 NASA OCEANIC PROCESSES PROGRAM (1985)
23300. -- PORAT M U, INFORMATION ECONOMY: DEFINITION AND MEASUREMENT (1977)
23301. -- NATIONAL SURVEY OF PROFESSIONAL, ADMINISTRATIVE, TECHNICAL, AND CLERICAL PAY, MARCH 1983 (1983)
23302. -- HILSEN RATH J, SUMMARY OF ON-LINE OR INTERACTIVE PHYSICO-CHEMICAL NUMERICAL DATA SYSTEMS (1980)
23303. -- SHERWOOD G B, STANDARD REFERENCE DATA PUBLICATIONS 1964-1980 (1981)
23304. -- COFFMAN J (ED) ANNUAL REPORT FISCAL YEAR 1984 NATIONAL GEOPHYSICAL DATA CENTER (1985)
23305. -- HARDING P, AUTOMATIC INDEXING AND CLASSIFICATION FOR MECHANISED INFORMATION RETRIEVAL (1982)
23306. -- GEOPHYSICAL FLUID DYNAMICS LABORATORY ACTIVITIES - FY85 PLANS - FY86 (1985)



JOB OPENINGS

February 5, 1986

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

Salaries for new employees and for current employees receiving reassignment 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 requirements and assessing expected performance levels.

ADMINISTRATIVE ASSISTANT - #0504

This position open to UCAR/NCAR employees only

ADM - Physical Facilities Services
Non-Exempt Range: 29, \$1,627-2,113/mo(86)
DUTIES: Provides administrative and secretarial support for Facilities Planning and Design (FPD), Maintenance and Construction (MC), and Space and General Services (SPG). Monitors blanket purchase order activity for groups supported; maintains record of blanket order limit and enters payments; verifies amount against blanket order report; transfers charges to proper account or work order. Prices items charged out to various projects. Assists managers in preparing blanket purchase order requisitions for new fiscal year; types requisitions; monitors and estimates deficiencies or excesses towards the end of the year. Prepares purchase requisitions for all groups; checks monthly finance statements to verify commitment and payment; transfers funds as stated under blanket purchase orders. Assists in preparing the department's annual budget. Checks monthly Budget Status Report for proper charging of expenditures. Prepares reports showing anticipated expenditures to end of fiscal year; determines areas of greatest uncertainty in future expenditures; researches uncertain areas; makes adjustments; prepares projections. Reviews and corrects time cards. Maintains personnel files for MC and FPD. Reviews Federal Register for pertinent information for FPD Manager's review; maintains photo log for construction projects; monitors construction subcontract "Request for Payment" and "Change Orders"; maintains monthly running balance of contract status. Schedules

and prepares monthly Preventive Maintenance slips; logs in and distributes maintenance requests and work orders. Monitors telecommunications budget. Assists in preparing quarterly energy reports. Performs receptionist duties for FPD, MC, and SGS groups.

REQUIRES:

- Skill in bookkeeping/accounting
- Skill in tracking budgets
- Skill in organizing systems and innovative procedures to aid in efficient operations
- Skill in oral and written communications
- Skill in accurate typing of approximately 60 WPM
- Skill in using microcomputer (preferably Apple II+) including word processing
- Skill in establishing and maintaining working relationships
- Skill in performing basic math functions
- Demonstrated skill in learning, remembering, and following organizational policies and procedures
- Thorough knowledge of spelling, grammar, punctuation, and composition
- Familiarity with engineering/architectural/construction/building maintenance terminology and tasks

ALSO DESIRED, BUT NOT REQUIRED:

- Skill in the use of remote job entry computer terminal for data storage and retrieval
- Knowledge of theory and practice of engineering filing
- Knowledge of construction industry terms, practices, methods, billing procedures, and ways of presenting bills of materials

Becky Foco X8710

APPLICATIONS PROGRAMMER II or III - #0502

AAP - Large-Scale Dynamics Section
 Exempt Range: 61, \$2,130-3,196/month (85)
 62, \$2,557-3,835/month (85)

DUTIES: Writes applications software associated with the community forecast model and post processors for the data sets created by the model. Works on minicomputers, small mainframes (VAX, IBM 4341) and large computers such as the CRAY-1 and CRAY X-MP at NCAR and possibly elsewhere. Modifies existing software dealing with computer models and diagnostics as well as develops new software. Learns the COS operating system.

ADDITIONAL DUTIES (level III): Collaborates with scientists in the specification of computing programs. Formulates suitable procedures to solve problems at hand. Documents or coordinates the documentation of software. Provides technical supervision of subordinate programmers.

REQUIRES:

- B.S. in computing science, atmospheric science, mathematics, engineering, or related physical science OR the equivalent combination of education and experience
- Demonstrated skill in writing easily modifiable, portable, and user friendly software
- Demonstrated skill in FORTRAN programming
- Demonstrated effective communication skills, both verbal and written
- Demonstrated skill in and working knowledge of state-of-the-art software development
- Demonstrated skill in establishing priorities and working with minimal supervision
- Willingness to work weekends or evenings and travel to non-NCAR computer centers as needed

ADDITIONAL REQUIREMENTS (level III):

- M.S. in computer science, atmospheric science, mathematics, engineering, or related physical science OR the equivalent combination of education and experience
- Demonstrated skill in completing projects in a responsive and timely manner
- Working knowledge of computer system architecture, to include operating systems and local networks
- Demonstrated skill in working with large and complex data sets and codes
- Demonstrated skill in problem analysis

- Demonstrated skill in explaining software development strategies and techniques to non-programmers and/or inexperienced programmers, to include publishing such descriptions
- Demonstrated skill in collaborating with users on software specifications and modifications

Nancy Lippincott, X8729

COMPUTER OPERATOR I - #0505

SCD - Operations

Non-Exempt Range: 27, \$1,344- 1,747/mo
 (1986)

DUTIES: Operates all of SCD's various computer systems. Restores normal operations following a computer system stop or malfunction, informing lead operator of action taken. Analyzes console instructions, queries, error messages, machine malfunctions, stops, schedules, programs, and job control language information to determine proper operating procedures. Maintains and records information, such as shift reports, trouble reports, and logs required for operational procedures. Performs tape cleaning, certification, and tape disbursement process. Develops and separates microfilm/fiche output and delivers to proper channels. Interfaces with users to assist in solving operational problems in person or via the phone. Loads and unloads material, supplies, and printer paper as required. Performs preventive maintenance on equipment including cleaning tape drives, readers, and printers.

REQUIRES:

- Formal training towards an A.S. or B.S. in the area of computer science, computer operation, or a related field OR the equivalent combination of education and/or experience
- Knowledge of basic practices, principles, and techniques of computer system operations
- Knowledge of computer capabilities and functions.
- Knowledge of the IBM VM system and large scale computer systems
- Skill in maintaining records, logs and other data
- Skill in establishing and maintaining effective working relationships
- Skill in interpreting and following written and oral directives of a technical nature
- Willingness to learn SCD's job control languages

- Willingness to work any shift during a 40 hour week, including weekends and holidays, with the primary shift being 4 p.m. to midnight
 - Physical ability to lift up to 45 lbs.
- ALSO DESIRED, BUT NOT REQUIRED:
- Previous experience on small, medium, and large-scale computing systems similar to SCD systems
 - Knowledge of programming languages
- NOTE: The primary shift for this position is 4 p.m. to midnight.
Nancy Lippincott X8729

CONFERENCE AND HOUSING COORDINATOR - #0506

This position open to UCAR/NCAR employees only

ADM - Conference and Food Services
Non-Exempt Range: 29, \$1,627 - 2,113 (86)
DUTIES: Coordinates and makes recommendations on all logistical arrangements for conferences, meetings, workshops, symposia held at NCAR or off-site; makes arrangements for items such as hotel reservations, travel, food service, room setups, local transportation, audio-visual aids, and registration; schedules meeting rooms; types and distributes Scheduled Activities list and Calendar Notes announcements; provides coffee and other refreshments as requested for meetings and charges back to requestor accounts. Locates suitable housing accommodations for short/long term visitors, new-hires, or present employees; matches size, price, dates, location, and furnishings with individual needs; assists with advance financial arrangements and counsels on leases, deposits, utilities, and furniture rental; mediates landlord/tenant disputes; processes required paperwork for Finance Office for housing allowance allotments. Provides Mesa Lab banking services. Provides support for food services functions as required; serves as host at special functions; types weekly menu for distribution to staff. Maintains and follows through with requests for office machine repairs for NCAR staff.

REQUIRES:

- Skill in one or more of the following fields: meeting planning, hotel sales, food service, public relations, real estate sales or property management
- Skill in working on more than one project at a time and seeing each through to completion

- Skill in independent decision making
- Skill in maintaining composure during periods of stress
- Skill in establishing and maintaining good working relationships with staff and the public
- Skill working independently
- Skill in interpreting and following procedures and policies as well as recommending new policy development or modification
- Skill in accurate typing of approximately 60 WPM
- Skill in establishing and maintaining filing systems
- Skill in working professionally with a large and very diverse client base
- Thorough knowledge of spelling, grammar, composition, and arithmetic
- Willingness to work overtime when required
- Physical ability to lift approximately 30 lbs.

ALSO DESIRED, BUT NOT REQUIRED:

- Skill in word processing
 - Skill in making travel arrangements
 - Knowledge of the elements of employee relocation such as bills of lading, various moving companies, and per diem rates
 - Familiarity with data management on personal computers
- Becky Foco X8710

CASUAL

STUDENT ASSISTANT I - #0503

ADM - Photographics Group
Flat Rate: \$5.65/hour
DUTIES: Receives incoming jobs from users of the photographic services, discusses special needs, and maintains logs of jobs received and in progress. Maintains files of photographic negative and contact sheets. Maintains files of cross-indexed card file of photographic subjects, types cards and files them. Keeps logs of loaned equipment, retrieves overdue items. Assists professional staff or works independently to process and mount 35 mm black-and-white slides. Assists staff in the use of audio-visual equipment.

REQUIRES:

- Skill in maintaining job logs and files of work in progress
- Skill in accurate typing of approximately 35 wpm
- Skill in discerning and categorizing various photographic subjects
- Skill in setting work priorities
- Organizational skills

- Familiarity with standard makes and models of photographic equipment
- Familiarity with audio visual equipment and skill in assisting others in its use
- Willingness to learn and perform basic photographic lab procedures
- Ability to work up to 20 hours/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
- Becky Foco X8710

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

CALENDAR NOTES

February 10th through February 17th

MONDAY, February 10th

- Meeting -- UCAR Board of Trustees
8:30 Monday through
1:00 Tuesday
Walter Orr Roberts Board Room

TUESDAY, February 11th

- Climate Club -- Role of the Ocean in Glacial/Interglacial Climate Change -- Wallace Broecker, Lamont-Doherty Geological Observatory
11:00 a.m.
NCAR Mesa Lab, Main Seminar Room
- AAP Seminar -- Chebyshev Spectral Methods for Limited Area Models -- Scott R. Fulton, Colorado State University
3:30 p.m.
NCAR Mesa Lab, Main Seminar Room

WEDNESDAY, February 12th

- SCD Seminar -- Implementing Multitasking -- Richard K. Sato, SCD
10:00 a.m.
NCAR Mesa Lab, Main Seminar Room
- CSD Seminar -- Boundary Layer Convection as Evidenced by Lake Effects Storms -- Roscoe Braham, University of Chicago
10:00 a.m.
RL-6 Seminar Room (W179)
- Meeting -- ACD Spec Committee --
8:30 Wednesday through
1:00 p.m. Friday -- NCAR Mesa Lab

THURSDAY, February 13th

- HAO Seminar -- A View from Down Under - Vector Magnetic Fields Via Stokes Polarimetry -- D. Rees, HAO
10:30 a.m.
NCAR Mesa Lab, Main Seminar Room

THURSDAY, February 13th (Continued)

- ASP Seminar -- Global Snow and Ice and Climate Interactions -- Rober R. Barry, CIRES and Department of Geography, University of Colorado, Boulder

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

FRIDAY, February 14th

OPEN

MONDAY, February 17th

HOLIDAY

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.