EDDY GIVES PRIZE LECTURE

John Eddy (High Altitude Observatory) was invited to give the James Arthur Prize Lecture at the Harvard-Smithsonian Center for Astrophysics in Cambridge, Massachusetts. Invitations to give this prize lecture are extended to outstanding scientists working in the field of solar physics, and this year the center asked Jack to lecture on the topic of the ancient sun. The lecture was given yesterday in Cambridge.

Jack is the fourth solar physicist chosen to present the lecture in recent years. The James Arthur Fund was established on Arthur's death in 1930 by a bequest to the Smithsonian Institution for "investigations and study of the sun and [an] annual lecture by a distinguished scientist in the field." Arthur, a manufacturer of precision machinery, was fascinated with time and its measurement, and he designed and built more than a dozen clocks and watches.

In his lecture, Jack talked about the promise and limitations of using radioisotope dating methods on tree rings and on ice and sea cores to gain insight into changes in solar activity. Jack has coedited *The Ancient Sun*, with R.O. Pepin and R.B. Merrill, and has published two other books, *The New Solar Physics* and *A New Sun*.

CLAIM PROCEDURES FOR THE NEW INSURANCE CARRIER

Bankers Life Insurance is the new (since 1 October) medical, dental, and life insurance carrier for UCAR employees. As we make the transition from Lincoln, the old carrier, to Bankers, there is some information all employees should know.

First, about 65 employees still have not turned in their new enrollment cards. Many of these individuals have life insurance only. It is still necessary to have a new enrollment card. If you have not turned in your enrollment card for any reason, please send it to Sandi Bell in the Personnel Office today or Monday.

The medical claim forms for Bankers are here. The forms are one sheet (two sides) of gold paper. Envelopes are provided as well. The address to which the completed form should be sent is in the upper left-hand corner on the front of the form. The Bankers form should be used for services received from 1 October on. The Lincoln claim form (pink) should still be used for services received before 1 October. Copies of the new medical claim forms are available from Sandi, and they have also been sent to the other NCAR locations.

(Continued)
The deductible arrangement with Bankers is the same as it has been with Lincoln, i.e., deductibles are figured on a calendar-year basis. With your first Bankers claim, you should send a copy of your most recent Explanation of Benefits (EOB) form from Lincoln to show how much of your or your family's deductible has been met. (The EOB is the white sheet with blue printing that accompanies a check from Lincoln; if you don't have the most recent one, you can get a copy from Sandi.) Bankers will honor the deductible you have already met. If you have had enough claims that insurance is paying 100% of covered expenses, Bankers will continue to pay 100% on receipt of the Lincoln EOB.

Remember that medical and dental deductibles are considered separately. You will need to send a copy of the most recent Lincoln EOB with your first Bankers medical claim and a copy of the Lincoln dental EOB with your first Bankers dental claim. For orthodontia claims, a similar procedure applies. Send a copy of the original treatment plan you sent to Lincoln and copies of the EOBs that show what payments you have received. Bankers will continue the payment of orthodontia claims on a quarterly basis. You will be asked to provide proof quarterly of the payments you have made. For other continuing claims, the first claim form sent to Bankers should include a diagnosis.

If you have any questions relating to these procedures or any other insurance issues, please call Sandi on ext. 1667 or Virginia Johnson on ext. 1669.

ANNOUNCEMENTS

UNITED WAY PARTY

Each year around this time, Boulder County United Way begins its campaign at NCAR. Thousands of people are helped by the services supported by Boulder County United Way. Health care, educational programs, and support groups are just a few of the many services that United Way provides to residents of Boulder County.

To celebrate this community action, NCAR's Employee Activities Committee will host a campaign kickoff party on Thursday, 13 October, in the Mesa Laboratory cafeteria from 3:00 to 5:00 p.m. There will be a mariachi band and Mexican food. Volunteers from Boulder County United Way will be on hand to help celebrate and answer any questions you may have about how your contribution will benefit the many programs currently under way within the county. Please come and join the festivities.

GOURMET CLUB

The NCAR Gourmet Club is being reorganized and is recruiting people interested in gourmet and international foods. The club will host an informal wine and cheese party on 21 October at 7:30 p.m. in the Damon Room. If you would like to attend this party, please bring a favorite wine (or juice) and cheese to share. If you want to join the group but cannot attend the October gathering, or if you desire more information about the club, contact Nancee Martin-Coffey, 499-5807.

MEMBERS' REPS MEETING LOCATION CHANGED

The location of the UCAR members' representatives meetings has been changed. The meetings, held 11-12 October, will be in RL-3 room 620 (a National Oceanic and Atmospheric Administration conference room).

NEED A NEW COOKBOOK?

The NCAR Ski Club is selling America's Best, a cookbook sponsored by the U.S. Ski Team. The cookbook, which features recipes from all 50 states, is edited by Jaydee Boat, author of the popular Colorado Cache cookbook. Some of the profits will go to the U.S. Ski Team and to the NCAR Ski Club. America's Best can be purchased at the ski club registration table by the cafeteria at lunch hour. The price is $12.00—a $1.95 savings over the retail price. The cookbook can also be ordered by using a form available on the ski club bulletin board by the cafeteria.

LOST BOOK

A book ordered by Gregory Kok, entitled Data Plotting Software for Micros, was not properly addressed to him by the publisher. Apparently it reached NCAR but not Greg. If you know where it is, please call him at ext. 1415.
NCAR/CIFRES SEMINAR CANCELLED

The joint NCAR/Cooperative Institute for Research in Environmental Sciences seminar on sun-weather relationships, scheduled for 12 October, has been cancelled.

CAFETERIA NEWS

The "special special" for next Wednesday, 12 October, will be smothered pork chops, potatoes, applesauce, crumb cake, and a 25¢ beverage, all for $2.25.

The breakfast special for next week will be French toast and a small juice for $1.35.

The winner of this week's free lunch is: STEVEN RHODES

PHONES CONNECTED

NCAR's 55th and Arapahoe location is now on the Harris phone system. Employees there can be reached at the phone numbers given in the new NCAR telephone book.

SOLAR DYNAMOS WIN AGAIN

On Monday night, the Solar Dynamos extended their latest winning streak to three games, defeating the Seco Bulls 13-3. Jim Klimchuk and Jerry Horton each had three hits, and Tod Woods and Ed DeLuca each had two. Pitcher Dave Friend gave up only six hits, and once again the defense was strong, as the team committed only two errors. Dan Packman was especially good in the outfield this game. The team remains in a three-way tie for first place with the Lifestyles Sleepers and the dreaded He's Dead, Jim. They will play these two teams in the last two games of the season, on 13 and 17 October. The next game is Monday, 10 October, at 6:45 p.m. at Stazio Fields (38th Street and Colorado Avenue). If the Solar Dynamos win this one they will be in a position to knock off the other first-place teams and take the league championship.

DISTRIBUTE YOUR NEW NUMBER

The switchboard would like to remind you to give your new telephone number to everyone who has your old number—especially those who might need to reach you in an emergency, such as officials at your child's school.

VISITORS


--Stephen Schneider, Advanced Study Program


--Stephen Schneider, Advanced Study Program

David Guenther, Yale University. Field of interest: Stellar interiors. 1 October 1983 - 1 October 1984. ML room 279, ext. 1512.

--Peter Gilman, High Altitude Observatory

The following visitors attended a meeting on the Stokes III on 27-29 September:

James Kemp, University of Oregon
Don Landman, University of Hawaii
Bruce Lites, Sacramento Peak Observatory
Don Mickey, Sacramento Peak Observatory

Frank Orrall, University of Hawaii
David Rees, University of Sydney, Australia
Ray Smartt, Sacramento Peak Observatory
Jack Zirker, Sacramento Peak Observatory

The following visitors attended a meeting on the solar optical telescope on 23-24 September:

Jacques Beckers, Multiple Mirror Telescope Observatory
George Doschek, Naval Research Laboratory
Richard Dunn, Sacramento Peak Observatory
John Harvey, Kitt Peak National Observatory
Robert Noyes, Harvard-Smithsonian Center for Astrophysics
Alan Title, Lockheed Research Laboratory
Hal Zirin, California Institute of Technology
Cornelius Zwaan, Astronomical Institute at Utrecht, The Netherlands
LIBRARY SERVICES

MESA LIBRARY MICROFICHE COPYING AVAILABLE

In recognizing the value of microfiche technical reports, we will provide, at no cost to you, MICROFICHE copies of library owned microfiche technical reports. Depending on the the load, we will duplicate up to five library owned microfiche per scientist per week. Your copy is in the form of microfiche - NOT paper. Turnaround time is expected to be about one week. To order your microfiche copies, either check off the desired microfiche from Library News or other Library announcements of new microfiche, or send in the microfiche reference(s) separately. Send to Gayl Gray.

--*--

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. 7-14, and in the RL-6 Library Oct. 14-21. New acquisitions announced last week (Sept. 30) are presently on display in the RL-6 Library through Oct. 14. You may reserve them during display for subsequent checkout.

NCAR staff members located off the Mesa site 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 and the Branch Libraries are in the following list. Reference material does not circulate.

WEBSTER'S NEW BIOGRAPHICAL DICTIONARY. Merriam-Webster, 1983.
ALPEX AIRCRAFT ATLAS. National Center for Atmospheric Research, 1982.
PROCEEDINGS OF THE SECOND SYMPOSIUM ON APPLIED GLACIOLOGY, HELD IN NEW HAMPSHIRE, USA. American Geophysical Union, etc., 1983.
THE TECHNICAL MANAGER: HOW TO MANAGE PEOPLE AND MAKE DECISIONS. Baird, B., 1983
DIRECTORY OF COLORADO LIBRARIES. Colorado State Library, 1983.

NEW TECHNICAL REPORTS

CHEMISTRY

21801. -- RADIATION OBSERVATIONS IN BERGEN, NORWAY 1982 (1983)

NEW TECHNICAL REPORTS continued

ATMOSPHERIC SCIENCE


21890. -- PASCH R J, ON THE ONSET OF THE PLANETARY SCALE MONSOON (1983)

21894. -- GOSSARD E E (ED) AIRCRAFT HAZARD ASSESSMENT FROM A CLEAR-AIR RADAR AND METEOROLOGICAL TOWER STUDY OF GRAVITY WAVE EVENTS (1983)

21895. -- DOESKEN N J (ET AL), COLORADO SOLAR RADIATION DATA WITH SUPPLEMENTAL CLIMATIC DATA (1982)

21896. -- DOESKEN N J (ET AL), USE OF THE PALMER INDEX AND OTHER WATER SUPPLY INDEXES FOR DROUGHT MONITORING IN COLORADO (1983)


21899. -- QIU G-Q (ET AL), ESTIMATES OF THE INTERANNUAL VARIABILITY OF MONTHLY MEANS IN A TEN-YEAR CONTROL SIMULATION WITH THE OSU ATMOSPHERIC GCM (1983)

21902. -- BILTOFF C, VERTICAL WIND ANGLE STANDARD DEVIATION CALCULATION METHOD FOR THE UNSTABLE SURFACE BOUNDARY LAYER RESEARCH REPORT (1983)

21903. -- COGAN J L, TRANSPORT AND DIFFUSION OF BUOYANT MATERIAL (1983)

21904. -- MIES R T, REVIEW OF CALCULATIONS OF EXTINCTION FOR VISIBLE AND INFRARED WAVELENGTHS IN RAIN (1983)


ENGINEERING AND INSTRUMENTATION

21841. -- HOLLOWAY W A (ET AL), PROCESSOR-CONTROLLED DAC-20 (1983)

21850. -- KOZUMA R (ET AL), ENGINEERING SERVICES IN SUPPORT OF THE AFGL SOUNDING ROCKET PROGRAM (1983)
APPLICATIONS PROGRAMMER I/II - #0123

ATD - Research Aviation Facility
Exempt Range: 51, $19,146 - 28,718/yr. (LEVEL I)
61, $22,974 - 34,462/yr. (LEVEL II)

DUTIES: Responsible for designing, developing, modifying, and maintaining software for scientific data analysis systems, for airborne data collection and display systems, and for interfacing and integrating software packages and drivers on similar and dissimilar computers and peripheral devices. Works with engineers and scientists to develop software for data reduction and analysis, working with minimal supervision; assists in maintaining and improving system software for the RAF HP1000 computer system and other RAF computers; assists in the interfacing of various peripherals and computer systems both on the airborne systems and the ground systems; assists in the design and development of special purpose software for test and analysis of new instrumentation systems; helps in formulating design specifications for new or revised software operating systems; participates in RAF and ATD design reviews; provides consulting on software matters to RAF staff and outside users as required; aids in the evaluation of RAF data products through the use of various time-series analysis techniques including statistical, temporal, and frequency domain methods; aids in the development of applications packages including mathematical calculations, numerical analysis, and graphics software (this development work could be on any of the computers used by RAF and ATD: CRAY 1A, VAX, HP1000, LSI 11/23, etc.); responsible for the documentation of all tasks performed; responsible for keeping informed and abreast of the current advances in computer science, graphics technology, computers and computer peripherals, etc., and for proposing innovative ideas for the incorporation of these technologies.

REQUIRES:
-- B.S. in atmospheric science, computer science, computer engineering, mathematics or physics with strong computer science background, or equivalent experience
-- Must possess communication skills necessary to discuss software development strategies and techniques with other programmers, engineers, and other non-programming staff
-- Knowledge of state-of-the-art software methodologies and their applications
-- Familiarity with hardware/software interfacing techniques
-- Must have experience with interactive minicomputer systems and a thorough knowledge of at least one operating system
-- Knowledge of the principles of database management systems
-- Must be willing to work hard and maintain a consistently high level of performance

ADDITIONAL REQUIREMENTS (LEVEL II):
-- M.S. degree in one of the above-mentioned disciplines or equivalent experience
-- Greater depth and breadth associated with the basic requirements for this position, including skills in other high-level languages and assembly languages
-- Ability to work more independently and at a higher level of responsibility than the level one programmer
-- Skills in hardware/software interfacing
-- Skills in microcomputer or microprocessor programming
-- Skills in graphics systems displays and programming of these systems

ALSO DESIRED, BUT NOT REQUIRED:
-- Experience with real-time systems being used for physical data acquisition and display
-- Familiarity with the theory and operation of airborne meteorological sensors
-- Demonstrated skill in application of digital signal processing algorithms to scientific data sets
-- Knowledge of principles of digital data communications and protocols
-- Knowledge of graphical systems software, techniques, and standards

Esther Blazon, X1638
CLERK II - #0137

ATD - Research Aviation Facility
Non-Exempt Range: 24, $561.25-729.37/mo. (.625 FTE)
DUTIES: Provides clerical support to scientific, technical and administrative staff.
REQUIRES:
--Thorough knowledge of English, spelling, grammar, composition and arithmetic
--Knowledge of modern office procedures and practices
--Skill in communicating well with a wide variety of people
--Skill in maintaining effective working relationships
--Skill in accurate typing at about 50 to 60 wpm.
--Skill in producing accurate work, with careful attention to detail
ALSO DESIRED, BUT NOT REQUIRED:
--Skill in transcribing machine dictation
--Skill in using calculator
--Skill in operating word processor equipment
--Knowledge of scientific terminology, symbols and report formatting
NOTE: This position is located at the Jefferson County Airport, in Broomfield. Work schedule will be 8:30 a.m. to 2:30 p.m. (1/2 hr. lunch), Monday - Friday.
Margareta Domeckl, X1637

CUSTODIAN - #0138

ADM - Physical Facilities
Non-Exempt Range: 24, $898 - 1,167/mo.
DUTIES: Will have responsibility for the general cleaning of facilities, including Jeffco and Marshall. Equipment used will include 1,000 lb. self-propelled floor machine, and 20-inch buffing machine. May be required to shovel snow at building entrances when needed.
REQUIRES:
--Skill in understanding, remembering and following detailed oral and written procedures given in the English language
--Skill in using good judgment, using initiative, and working independently with limited supervision
--Skill in getting along with co-workers and staff
--Physical strength to lift a 5-gallon bucket of wax or water, to operate a 1,000 lb. self-propelled floor machine and 20-inch buffing machine, to shovel snow and to assist with furniture moving
--Must provide own transportation between sites, when assigned (mileage will be reimbursed)
ALSO DESIRED, BUT NOT REQUIRED:
--Custodial experience in similar laboratory or office facilities
--Bilingual, English and Spanish
NOTE: Normal work hours will be 6:00 a.m. to 2:30 p.m. during training; hours may vary after training.
Esther Blazon, X1638

PAGE TWO

ELECTRO/MECHANICAL TECHNICIAN II/III - #0144

ATD - Field Observing Facility
Non-Exempt Range: 28, $1,315 - 1,708/mo. LEVEL II
30, $1,591 - 2,067/mo. LEVEL III
DUTIES: Responsible for construction, operation, and maintenance of digital and microwave radar systems used in meteorological remote sensing. Work areas will include: digital logic, electromechanical hardware, analog hardware, microwave systems, and computer systems. Uses independent judgment in the application of established procedures and methods for the solution of problems, often drawing upon knowledge from a variety of fields. Receives general supervision from engineers, and senior technicians. Prepares for and participates in meteorological field experiments in the areas involving installation, operation, calibration, and maintenance of radar related remote sensing equipment. Specific items will include: computerized data acquisition systems, digital storage systems, writing or modifying computer programs, electronic subsystem assembly including wire wrap and printed circuit board assembly, repair of defective equipment such as computer terminals, tape drives, etc., and generating documentation such as schematics and wire lists for in-house developed equipment. ADDITIONAL DUTIES (LEVEL III): Writes or modifies computer programs, electronic subsystem assembly including wire wrap and printed circuit board assembly, repair of defective equipment such as computer terminals, tape drives, etc., and generating documentation such as schematics and wire lists for in-house developed equipment. ADDITIONAL DUTIES: Responsible for construction, operation, and maintenance of digital and microwave radar systems used in meteorological remote sensing. Specific items will include: computerized data acquisition systems, digital storage systems, writing or modifying computer programs, electronic subsystem assembly including wire wrap and printed circuit board assembly, repair of defective equipment such as computer terminals, tape drives, etc., and generating documentation such as schematics and wire lists for in-house developed equipment. ADDITIONAL DUTIES (LEVEL III): Writes or modifies computer programs, electronic subsystem assembly including wire wrap and printed circuit board assembly, repair of defective equipment such as computer terminals, tape drives, etc., and generating documentation such as schematics and wire lists for in-house developed equipment.
REQUIRES:
--Demonstrated skills as an electronic technician with emphasis on digital electronics and computers
--Thorough knowledge of basic electronics
--Demonstrated skill in fabricating, testing, and sevicing of a variety of electronic equipment
--General knowledge of common electronic components and their use
--Demonstrated skill in the use and care of sophisticated electronic test and measuring equipment
--Skill in electronic and mechanical assembly, including wire wrap, printed circuit board, and basic machine shop (drills, lathes, milling machine, etc.)
--Skill in electronic troubleshooting
--Skill in electronic documentation
--Ability to work independently in a fairly informal managerial structure
--Ability to work well with others as a member of a technical team, assume some leadership responsibilities, and to interact favorably with people of varied backgrounds and life style (i.e., other electronic technicians, electrical engineers, field supervisory personnel, scientific users, and local residents)
--Willingness/ability to travel for periods not usually exceeding one month but sometimes totalling 120 days per year
--Physical strength to lift 70 lbs. on occasion

ADDITIONAL REQUIREMENTS (LEVEL III):
--Some experience in computer programming, such as microprocessor assembly language, BASIC, FORTRAN, etc.
--Demonstrated skill in digital subsystem design, fabrication, documentation, and testing

ALSO DESIRED, BUT NOT REQUIRED:
--Background in radar and real time digital data systems
--Formal electronics training

ELECTRONIC TECHNICIAN III - #0113-14 (2 positions)

ATD - Research Aviation Facility
Non-Exempt Range: 30, $1,591 - 2,067/mo.

DUTIES: Installs research equipment in aircraft including signal and power wiring according to RAF/FAA codes; checks out, calibrates and repairs aircraft research instrumentation; designs, fabricates and does layout of digital and analog electronics; participates in flights for the check out of research instrumentation and for the operation of equipment during research program support; operates, maintains and calibrates research equipment and data systems on RAF field support programs; documents aircraft and research system wiring and configuration.

REQUIRES:
--Skill and knowledge in research aircraft wiring and instrumentation
--Demonstrated skill in electronic equipment fabrication and trouble-shooting
--Current state-of-the-art knowledge of microprocessor and computer based instrumentation and digital electronics
--Travel in support of field programs (2 mo./yr.) at which time significant overtime will be required
--Willingness to support aircraft operations in research situations requiring technical competence, dedication, and overtime
--Ability and desire to work well with other electronic technicians, field supervisory personnel, and scientific users
--Precise and organized work habits
--Routine demonstration of a mature attitude and use of good judgment in both field and lab situations
--Willingness to work hard and produce acceptably high levels of good work
--Ability to pass recurrent physiological (altitude) training test requiring current FAA Class III Medical Certificate

Margareta Domecki, X1637

EMPLOYMENT ADMINISTRATOR - #0149

DIR - Personnel/EOP
Exempt Range: 72, $19,921 - 28,831/yr.

DUTIES: Fills a heavy volume of NCAR vacancies, including all vacant positions (exempt, non-exempt, scientific, and technical, etc.). Recruits, interviews, selects applicants to refer to supervisors, participates in the selection decision and salary setting processes. Coordinates and documents the hiring process. Implements the Affirmative Action Program through maintaining effective affected class recruiting resources and counseling hiring supervisors. Provides technical assistance to supervisors in the selection process. Insures that hiring practices are in compliance with NCAR policy and government regulations.

REQUIRES:
--Knowledge of personnel theories and practices
--High level skills at effective communications, both oral and written, particularly in difficult situations and in discussions of personal and sensitive subjects
--Ability to operate effectively in a hectic environment and handle a heavy volume of work
--Skill/willingness to do detail work, including maintaining complete and accurate records and preparing reports
--Ability to develop and maintain a high level of credibility with scientific and technical staff
--Demonstrated interest in personnel work
--Basic typing skills (approximately 40 wpm.)
--Skill at using good judgement in making decisions, and in applying and interpreting policies under established guidelines

REQUIRES:
--Working knowledge of scientific, engineering, and/or other technical concepts, jargon and recruiting
--Skill at employment interviewing
--Experience in a personnel function in an organization

Ben Cordova/Valerie Friesen, X1675

MAIL ROOM CLERK/SHUTTLE BUS DRIVER - #0131

ADM - Physical Facilities Services
Non-Exempt Range: 24, $898 - 1,167/mo.

DUTIES: Receives, sorts and delivers U.S.P.S. mail and inter-office mail. Provides services, materials, and information for various classes of letters, flats, packages. Drives shuttle carrying passengers between the Mesa Lab and Table Mesa RTD stop. Delivers and picks up the mail at all NCAR facilities (30th Street, Arapahoe, Jeffco and Marshall).

REQUIRES:
--Knowledge of U.S.P.S. rules and regulations and domestic and international rates
-- Familiarity with all classes of mail including first class, bulk permits, international rates, library rates, parcel post, express mail, etc.
-- Ability to qualify for and retain GSA driver's license (no more than two moving violations in past three years and valid Colorado driver's license)
-- Ability to acquire "S" driver's license
-- Physical strength of lift 70 lb. mail bags on occasion and spend majority of day walking, standing or driving
-- Skill in working under tight schedule
-- Ability/willingness to work occasional overtime
-- Ability to work a schedule that alternates between 7:00 a.m. to 3:30 p.m. and 9:00 a.m. to 5:30 p.m.
-- Demonstrated good attendance record
ALSO DESIRED, BUT NOT REQUIRED:
-- Previous skills at handling mail in large organization

Esther Blazon, X1638

PH.D. SCIENTIST I/II - #0067

AAP - Mesoscale Research Section
Exempt Range: 82, $25,814-38,722/yr. (LEVEL I)
83, $30,977-46,465/yr. (LEVEL II)
DUTIES: Carries out individual and collaborative basic research studies on small-scale or mesoscale meteorology. Research to be undertaken will be selected and defined in collaboration with the senior staff, but is likely to include research into the effect of moist convection on the larger-scale environment, mesoscale predictability, mesoscale aspects of convective storms, and the dynamics of such mesoscale features as squall lines, fronts and jets. Primary emphasis will be in advancing the fundamental understanding of important mesoscale processes and their interactions with small scales of motion. Both theoretical and observational studies will be encouraged. The ultimate goal is to improve the skill of mesoscale forecasting. Scientist II level will be expected to work more independently.
SPECIFIC TASKS AND RESPONSIBILITIES (LEVEL I):
-- Performs a combination of theoretical, observational, and numerical modeling research in the areas listed above
-- Makes contributions to professional journals and other literature
-- Actively participates at scientific meetings
-- Interacts and collaborates closely with other NCAR scientists to achieve research objectives
-- Manages his/her employees in ways consistent with UCAR policies and the Affirmative Action Program
ADDITIONAL RESPONSIBILITIES (LEVEL II):
-- Takes a lead role in designing and implementing a research program in the areas listed above
REQUIRES (LEVEL I):
-- Ph.D. dissertation or equivalent research contribution in meteorology or related field
-- Demonstrated expertise/interest in small-scale or mesoscale meteorology
-- Demonstrated skill in effective written and oral communication
-- Strong mathematical abilities

ADDITIONAL REQUIREMENTS (LEVEL II):
-- Several years of research experience in mesoscale meteorology or related areas
-- Publication record reflecting the quality and productivity of past research

ALSO DESIRED, BUT NOT REQUIRED:
-- Postdoctoral research experience or equivalent; demonstrated ability to broaden research interests from those pursued in Ph.D. thesis; strong programming abilities

NOTE: The Scientist I and II appointments are for terms of up to three and four years, respectively; individuals may then be appointed to the Scientist II or III position, respectively, in accordance with UCAR policy.

Esther Blazon, X1638

PILOT - #0142, #0146 (2 positions)

ATD - Research Aviation Facility
Exempt Range: 55, $32,481 - 48,721/yr.
DUTIES: Serves as pilot-in-command or as second-in-command of NCAR aircraft (BE80, BE200, NA 265 and L-188) used in world wide atmospheric research projects. Develops close working relationship with scientific investigators in developing flight profiles which will achieve the maximum number of scientific objectives compatible with the operational limitations of the aircraft and constraints of applicable regulations. Plans extensive multi-airplane international research programs and contacts with the National Science Foundation, Dept. of State, U.S. and Foreign Customs Officials. Organizes and executes flight plans of a very complex nature requiring special coordination with both U.S. and foreign traffic control agencies.
REQUIRES:
-- FAA Airline Transport Pilot with multi-engine rating
-- FAA First Class medical certificate
-- Graduate of a formal professional pilot program
-- B.S. degree (engineering or physical sciences preferred)
-- Ten years professional pilot experience in domestic and foreign operations
-- 5,000 pilot flight hours, of which 2,500 must have been in multi-engine airplanes
-- 2,500 pilot-in-command flight hours
-- 500 hours pilot-in-command of 4 engine turbo prop aircraft or multi-engine turbine powered aircraft
-- 300 hours of actual instrument flight time
-- Successful completion of NCAR flight physical examination may be required
ALSO DESIRED, BUT NOT REQUIRED:
-- Leadership responsibilities on operational/technical teams supporting research and development programs
-- Diversified flying background, both in category and type of aircraft and operational requirements
-- Pilot-in-command experience in BE80, BE200, NA265, and L-188 type aircraft
Margareta Domecki, X1637
SCIENTIST I - #0112

DIR - Acid Deposition Modeling Project
Exempt Range: 82, $25,814 - 38,722/yr.
DUTIES: Develops computer programs for the simulation of chemical interactions within the ADM System and engages in related independent research. Specifically, develops a computer program representing the homogeneous gas phase chemistry that is necessary for the acid deposition model; participates in developing a liquid phase chemistry submodel for the model; studies the effect of clouds on radiation and photochemical processes; studies relevant boundary layer parameterization techniques, submodels; makes decisions regarding the application of numerical techniques, processing chemical kinetic data, and selecting appropriate equations; meets periodically with groups from cooperating institutions; presents periodic reports to the ADMP Steering Committee and other appropriate subgroups of the Project; presents results at technical meetings and in the scientific literature in a timely manner.
REQUIRES:
--Ph.D. or equivalent experience and education
--Considerable knowledge of tropospheric chemistry
--Knowledge of modeling atmospheric chemistry
--Knowledge of atmospheric scavenging processes
--Knowledge of the physics of regional acid deposition
--Knowledge of computer programming
--Ability to work independently and with a group
NOTE: Scientist I appointments are for terms of up to three years. Individuals may be appointed to the next higher level of Scientist in accordance with the UCAR Scientific Appointments Policy.
Margareta Domecki, X1637

SCIENTIST I/II - #0109

CSD - Mesoscale Interactions Group
Exempt Range: 82, $25,814 - 38,722 (LEVEL I)
83, $30,977 - 46,465 (LEVEL II)
DUTIES: Carries out individual and collaborative research on small-to mesoscale meteorology. Projects will be selected and defined in collaboration with the senior staff. Scientific effort will focus on the structure and dynamics of convective lines and other mesoscale systems, thunderstorm initiation, hurricanes, and interactions among turbulence, convection, mesoscale, and synoptic scales. Emphasis is on observational studies, using data from surface mesonets, tethered balloons, aircraft, and Doppler radars. Actively participates at scientific meetings; makes contributions to professional journals and other literature; may participate in planning and execution of the Stormscale Operational and Research Meteorology (STORM) field experiments and other field programs; develops an understanding of mesoscale systems that will enhance accurate forecasting; interacts with scientists within NCAR and elsewhere to achieve individual and group scientific objectives; manages employees in ways consistent with UCAR policies and procedures and Affirmative Action program goals.
ADDITIONAL DUTIES (LEVEL II): Takes a lead role in design and implementation in the areas listed above.
REQUIRES:
--Ph.D. dissertation or equivalent evidence of independent research contribution in meteorology or closely allied field
--Demonstrated skill and creativity in analysis/interpretation of data from one or more of the data systems listed above with a realistic idea of their limitations
--Demonstrated skill in oral and written presentation of scientific results
--Ability to write and modify complex computer programs for data analysis
ADDITIONAL REQUIREMENTS (LEVEL II):
--Several years of productive research experience, as indicated by number and quality of publications, or equivalent evidence
--Demonstrated skill in the above areas
ALSO DESIRED, BUT NOT REQUIRED:
--Demonstrated ability/interest in broadening research to include areas not directly covered by Ph.D. research
--Experience in planning and conducting field work with Doppler radar, aircraft or other systems
--Working knowledge of analysis/interpretation of Doppler radar data
--Interest in convection, mesoscale weather systems, and short-range weather prediction. A deep interest in how the "real" atmosphere works.
NOTE: Scientist I and II appointments are for terms of up to three and four years, respectively. Individuals may be appointed to the next higher level of Scientist in accordance with the UCAR Scientific Appointments Policy.
Esther Blazon, X1638

SCIENTIST II/III - #0125

ATD - Research Aviation Facility
Exempt Range: 83, $30,977 - 46,465/yr. (LEVEL II)
84, $37,172 - 55,758/yr. (LEVEL III)
DUTIES: Engages in research and service activities associated with aircraft deployed by the RAF; service activities (50%) are in support of field experiments; scientific direction for design and development of new measurement systems; technology transfer to operational meteorology and related disciplines; research activities (50%) involve experimental meteorology with emphasis on development of new analysis techniques for utilization of instrumented research aircraft; supervises employees in ways consistent with UCAR policies and procedures and with Affirmative Action compliance program goals.
REQUIRES:
--Ph.D. or equivalent experience in relevant areas
--Demonstrated ability to organize and conduct field experiments utilizing instrumented meteorological research aircraft; including direction and supervision of technical specialists in field
--A demonstrated record of peer acceptance for research in cloud physics, cumulus dynamics,
mesoscale research, boundary layer meteorology or radar meteorology
-- Understanding of the use and development of meteorological research aircraft and a willingness to pursue research topics making use of such aircraft
-- Willingness to promote and conduct collaborative research with the user community including universities, government laboratories and other institutions
-- Ability and willingness to interact with RAF users in both scientific and service capacities
-- Willingness to travel and to participate in field experiments. (In most cases field support will be coincident with personal research objectives.)
-- Ability to pass FAA third class physical examination
-- Ability to develop and test new techniques in atmospheric measurement and analysis
-- Willingness to participate in the design and development of new hardware and software
-- Willingness and ability to cooperate with other ATD facilities (Field Observing Facility, and Global Atmospheric Measuring Project)
ADDITIONAL REQUIREMENTS (LEVEL III):
-- Experience level normally associated with 5-10 years relevant research
-- Publications record and peer acceptance normally associated with the associate professorship level
-- Greater breadth and/or depth than implied by the minimum requirements
ALSO DESIRED, BUT NOT REQUIRED:
-- Experience with aircraft instrumentation techniques with demonstrated experience in specialty area instrumentation
-- Understanding of immersion and remote sensing system hardware
-- Ability to direct development of general user software for analysis of meteorological data
-- Experience with multiple Doppler experimentation and analysis
NOTE: Scientist II appointments are for terms of up to four years. Individuals may be appointed to the next higher level of Scientist in accordance with the UCAR Scientific Appointments Policy.
Margaret Domecki, X1637

SUPPORT SCIENTIST I/II - #0108

CSD - Mesoscale Interactions Group
Exempt Range: 80, $17,926 - 26,890/yr. (LEVEL I)
81, $21,512 - 32,268/yr. (LEVEL II)
DUTIES: Assists in the analysis and interpretation of radar, aircraft, and mesonet data from the surface to the troposphere, in the study of the origin and evolution of deep convective systems, in the mid-latitudes and the tropics, and their interaction with motions of larger and smaller scales.
ADDITIONAL DUTIES (LEVEL II): participates in all phases of research; considerable responsibility for writing up results for publication; develops and modifies computer programs; may participate in planning and execution of field experiments including the planned field phase of the Stormscale Operational and Research Meteorology (STORM) project; manages employees in ways consistent with UCAR policies and procedures and Affirmative Action program goals.
REQUIRES:
-- Master's degree in the atmospheric sciences, with a thesis on a topic related to the above topics; or demonstrable equivalent of expertise and interest
-- Demonstrated knowledge of techniques in analysis of one or more of the listed data
-- Demonstrated skill in writing and modifying complex computer programs for data analysis, including manipulation of magnetic tapes, graphics subroutines
-- Demonstrated skill in planning and conducting required research
-- Demonstrated skill in writing up research results
-- Demonstrated skill in meeting deadlines and organizing workload
ADDITIONAL REQUIREMENTS (LEVEL II):
-- Demonstrated skill in working independently
ALSO DESIRED, BUT NOT REQUIRED:
-- Some knowledge of the NCAR computer systems, specifically the VAX 11/780 and CRAY-1
-- Experience in field projects
-- Working knowledge of techniques in analysis of Doppler radar data
-- Interest in convection, mesoscale weather systems, and short-range weather prediction. A deep interest in how the "real" atmosphere works
NOTE: This position is for a one-year term, with a possibility of extension.
Esther Blazon, X1638

SUPPORT SCIENTIST I/II - #0145

ATD - Field Observing Facility
Exempt Range: 80, $17,926 - 26,890/yr. (LEVEL I)
81, $21,512 - 32,268/yr. (LEVEL II)
DUTIES: Assists in the computer processing and analysis of radar measurements, airborne cloud physics measurements and surface observations obtained as part of the 1993 May Polarization Experiment (MAYPOLE). Participates in the planning, field operations and data analyses for a similar 1984 experiment in the Boulder area. Evaluates the system performance of NCAR's CP-2 radar, with emphasis on dual-polarization data quality. Does scientific research directed toward understanding the relationship between observed signatures in dual-polarization radar measurements and meteorological parameters such as precipitation particle phase and type, rainfall rate and storm structure. Gains familiarity with existing software tools developed for analyses. Interacts with programming staff to aid in development of additional FORTRAN software tools as needed.
Contributes to the written documentation of project results.
REQUIRES:
-- B.S. or equivalent in meteorology or other physical sciences
-- Interest in collection and analysis of field data
-- Familiarity with aircraft and radar measurements to allow scientific analysis
-- Previous experience in FORTRAN programming
-- Ability to learn the operation of batch and
interactive data processing and display systems
--Good verbal communication skills
ADDITIONAL REQUIREMENTS (LEVEL II):
--M.S. or equivalent in meteorology or related physical science
--Evidence of previous research experience using field data
--Ability to independently solve scientific problems
--Scientific understanding of basic cloud structures and processes
NOTE: This position is for a one year term.
Esther Blazon, X1638

SUPPORT SCIENTIST III/IV - #0124
ATD - Research Aviation Facility
Exempt Range: 82, $25,814 - 38,722/yr. (LEVEL III)
83, $30,977 - 46,465/yr. (LEVEL IV)
DUTIES: Is responsible for the coordination of assigned RAF approved research projects according to directions specified by supervisor; acts as the principle interface between the RAF and the user scientist during the planning, field execution, and analysis phases of these projects; insures that the instrumentation of assigned aircraft and the analysis of complex atmospheric measurements taken during assigned projects are correct and meet research needs; work is subject to review to insure that goals are met; when not involved in research support activities, is involved in research and development activities relating to aircraft instrumentation and data analysis. ADDITIONAL DUTIES (LEVEL IV): Is responsible for the overall management of assigned RAF approved research projects with more limited supervision than level III.
REQUIRES:
--M.S. in meteorology or related engineering or physical science or equivalent experience
--Solid research in the atmospheric sciences
--Broad knowledge of instrumentation used in atmospheric investigations using aircraft
--Familiarity with data management as applied to aircraft measurements operations
--Demonstrated skill in successfully working with and leading a technical team
--Demonstrated skills in planning and executing aircraft operations and in providing logistic support to field projects
--Ability/willingness to travel up to four months each year
--Ability to pass third class FAA physical exam
ADDITIONAL REQUIREMENTS (LEVEL IV):
--Extensive research in the atmospheric sciences
--Demonstrated leadership skills for complex and demanding field or development efforts
--Competence in selected research and development topics as demonstrated by published research papers or development projects
ALSO DESIRED, BUT NOT REQUIRED:
--Knowledge of and skill in FORTRAN programming
Margareta Nomecki, X1637

SUPPORT SCIENTIST III/IV - #0141
HAO - Solar Maximum Mission
Exempt Range: 82, $25,814 - 38,722/yr. (LEVEL III)
83, $30,977 - 46,465/yr. (LEVEL IV)
DUTIES: This incumbent will function as "Chief Observer" for the High Altitude Observatory (HAO) Coronagraph/Polarimeter (C/P) experiment on the Solar Maximum Mission (SMM) satellite, and will be in charge of C/P operations after the in-space repair of the satellite and instruments by the Space Shuttle. More specifically, the incumbent will: function as the High Altitude Observatory's on-site experiment representative to NASA at Goddard Space Flight Center (GSFC), Greenbelt, Maryland; provide leadership in the operational phases of the C/P experiment, including coordinating work of one engineer and supervising two data technicians; provide support and work with the HAO engineer to ensure safe operation of C/P and correct diagnosis of any instrument malfunctions; administer appropriate corrective measures to secure the instrument in case of malfunction; oversee operation of DEC 11/34 minicomputer system used in the command generation and data receipt process, including maintenance of software and hardware; coordinate daily uplinking of commands to satellite; attend SMM planning meetings at GSFC, and coordinate and cooperate with other scientific experiments; make priority decisions on observing targets of opportunity based on HAO weekly planning meeting objectives and solar/planetary science information relative to instrument operation and scientific data. REQUIRES:
--Willingness to be "located" initially in Boulder for training with subsequent relocation for work at Goddard Space Flight Center, Greenbelt, Maryland in early January of 1984
--B.S. or M.S. in physics, astronomy or related science
--Skill and experience in verbal and written communication to project the appropriate high level of responsibility in a high technology, large investment experiment
--Experience using and writing computer software
--Demonstration of a high level of reliability and clear judgement in carrying out scientific experiments
ADDITIONAL DESIRED CAPABILITIES: Capabilities to be used to distinguish between Levels III and IV are listed below.
--Direct experience with DEC minicomputer systems
--Experience in astronomical and/or solar observations
--Experience with laboratory and/or satellite instrument hardware
--Demonstrated skill in management of a small number of associate workers
--Experience with computer hardware
NOTE: This position is expected to last for the duration of the NASA-funded project, with the possibility of extension from other project funds.

Ben Cordova/Valerie Friesen, X1675

CASUAL

STUDENT ASSISTANT II - #0134

ATD - Field Observing Facility
Flat Rate: $6.35/hr.
DUTIES: Provides technical and clerical assistance with computer processing and analysis of meteorological Doppler radar data which involves the archival of radar data sets and quality control techniques used in data processing. Participates in summer field research programs which involve the operations of Doppler radars.
REQUIRES:
--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
--Meticulous attention to details
--Familiarity with computer operations with general knowledge of CRAY 1, PDP 11/60 and VAX 780 systems
--Willingness and interest to participate in summer field programs away from Boulder
--Ability to qualify for a GSA driver's license (no more than two moving violations in past three years and valid Colorado driver's license)
--Interest in conducting data analysis
--Ability to work up to 20 hrs./week during periods school is in session, and full-time during breaks and summer

NOTE: This position is funded for one year with possibility of extension.
Margareta Domecki, X1637

STUDENT ASSISTANT III - #0139

ACAD - Chemical Modeling Project
Flat Rate: $8.75/hr.
DUTIES: Provide design, development and programming assistance in refining and extending chemical modeling performance. Assist in developing automatic time step selection schemes for first order initial value problems; test methods aimed at precise detection and control of convergence in large, nonlinear algebraic systems; develop an algorithm and code to automatically partition a set of chemical equations so as to minimize the overall computational burden; test secant updating techniques on realistic sets of nonlinear algebraic equations; assist in maintaining and improving present chemistry solver packages.
REQUIRES:
--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
--R.S. or B.A. in atmospheric science, computer science, engineering, physics or mathematics with computer science background or equivalent level of skill and knowledge
--General background in numerical solution of initial value problems and nonlinear algebraic systems
--Some skill in programming in FORTRAN on a substantial mainframe
--Ability to work up to 20 hrs./week during periods school is in session, and full-time during breaks and summer

ALSO DESIRED, BUT NOT REQUIRED:
--Knowledge of the network at NCAR

NOTE: This position is funded for one year with possibility of extension.
Margareta Domecki, X1637

STUDENT ASSISTANT III - #0143

ATD - JAWS/Field Observing Facility
Flat Rate: $6.75/hr.
DUTIES: Assists with the design, implementation, and testing of algorithms for the analysis of 2-dimensional data sets associated with wind shear detection from data collected during the Joint Airport Weather Studies (JAWS) field program.
REQUIRES:
--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
--Graduate or undergraduate student in mathematics, physics, computer science, or engineering
--Extensive skill in numerical analysis and vector calculus
--Extensive skill programming in structured FORTRAN
--Ability to work up to 20 hrs./week during periods school is in session, and full-time during breaks and summer of 1984

ALSO DESIRED, BUT NOT REQUIRED:
--Signal processing, time series analysis, elementary statistics, and some knowledge of triangulations
--Skill programming on VAX computer

Margareta Domecki, X1637
CALENDAR NOTES
October 9th through October 17th

SUNDAY, October 9th
- Meeting -- UCAR Personnel Committee
  5:00 p.m.
  Broker Inn, Boulder
- Meeting -- Executive Committee of Board of Trustees
  7:00 p.m.
  Broker Inn, Boulder

MONDAY, October 10th
- Meeting -- Board of Trustees
  9:00 a.m. Monday to 12 Noon Tuesday
  Fleischmann Bldg., UCAR Board Room

TUESDAY, October 11th
- Meeting -- Annual Members Representatives
  1:00 p.m. Tuesday to 12 Noon Wednesday
  RL-3, Room 620

WEDNESDAY, October 12th
- Meeting -- Scientific Programs Evaluation Committee
  1:00 p.m. Wednesday to 12 Noon Thursday
  Fleischmann Bldg., UCAR Board Room
- Meeting -- Joint Research Aviation Facility/Field Observing Facility Panels
  1:00 p.m. to 5:00 p.m.
  NCAR Mesa Lab, Damon Room

THURSDAY, October 13th
- Meeting -- Research Aviation Facility Advisory Panel
  8:30 a.m. Thursday to 12 Noon Friday
  NCAR Mesa Lab, Chapman Room
- Meeting -- Field Observing Facility Advisory Panel
  8:30 a.m. - 5:00 p.m.
  NCAR Mesa Lab, Damon Room

THURSDAY, October 13th (Continued)
- HAO/Radiation Hydrodynamics Seminar --
  (a) Comoving-Frame Equation of Transfer
  (b) Comoving-Frame Equations of Radiation Hydrodynamics -- Dimitri Mihalas, HAO
  11:00 a.m. - 12:15 p.m. and
  1:15 p.m. - 2:30 p.m.
  NCAR Mesa Lab, Main Seminar Room
- NCAR United Way Kick-Off Party
  3:00 p.m.
  NCAR Mesa Lab, Cafeteria
- HAO Seminar -- The Eye of Texas - The 300-Inch New Texas Telescope -- Harlan J. Smith, University of Texas McDonald Observatory
  3:30 p.m.
  NCAR Mesa Lab, Main Seminar Room

FRIDAY, October 14th
OPEN

MONDAY, October 17th
OPEN

Calendar Notes announcements may be mailed to Holly Hatton, ML 136. Wednesday at 12:00 noon is the deadline for items to be included in the Calendar Notes.