

Staff Notes

MONTHLY

* UNIVERSITY CORPORATION FOR ATMOSPHERIC RESEARCH
NATIONAL CENTER FOR ATMOSPHERIC RESEARCH • UCAR OFFICE OF PROGRAMS

June 1994

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About this publication

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-----Help Welcome UCAR Summer Collegians

The twelve participants in this year's Summer Employment Program (SEP) arrived at UCAR this week. They are being joined by two undergraduate visitors from Clark Atlanta University working at the Cooperative Program for Operational Meteorology, Education, and Training (COMET) for the summer through National Science Foundation support. UCAR is welcoming both groups of students with a reception at which they will meet and mingle with their peers, others involved with their summer programs, and as many UCAR employees as possible.

The reception is scheduled for Thursday, 23 June, 3:30 - 5:00 p.m., in the Foothills Lab cafeteria atrium, Building 2. Meet the students and enjoy food, beverages, and camaraderie. Ethnic cuisine from the various cultures represented by the program participants will be featured. Come join the party!

-----New to Computing at NCAR?

If you are new to computing at NCAR and want a quick leg up, come to this summer's UNICOS Orientation Class being offered by the Scientific Computing Division:

Wednesday, 29 June
8:30 a.m. - 4:30 p.m.
FL2 room 1001

This one-day lecture gives you basic information about job submission, NCAR's mass storage system, graphics processing, and software libraries. It also introduces UNIX/UNICOS programming tools. (A basic working knowledge of UNIX is required.) For more details and to register for this free class, please send e-mail to scdinfo@ncar.ucar.edu or call SCD User Information, ext. 1225.

-----Graphic Services Is On the Move This Week

Graphic Services is moving into new quarters this week in the middle of the second basement (the former Machine Shop area). The Copy Center moved on Tuesday, 7 June, while Graphics and Photographics are occupying their new space today. Please allow for some delays in service until the move is complete. Full coverage of the new space and services will appear in a future issue of Staff Notes.

-----Tomorrow Is Central Store's Grand Opening

If you enjoy finding a bargain and helping the environment, you can do both at once by patronizing UCAR's new Central Store. This operation, which opened on Monday, 6 June, at the Mesa Lab, is working with all UCAR and NCAR entities to combine stocks of frequently used tools, electronic components, office supplies,

shipping and packing supplies, computer disks and supplies, and the like. By pooling inventories and projecting usage, the store offers these items to divisions and programs at a savings.

"There are several ways in which we are saving the institution money," says Lena Miller, the Central Store manager. "We are eliminating the time spent in the processing of a purchase requisition for small items. We're also saving the space needed to stock large backlogs of supplies, the time needed to process returns due to shipping error, and the time it takes a scientist or engineer to leave a project and run to a local vendor to get a part."

In line with UCAR's environmental stewardship initiatives, the store is helping to reduce, reuse, and recycle a variety of products. It looks for products with minimal packaging, recycled contents, and environmentally safe features. The store will offer a battery-recharging program as well as reconditioned toner cartridges for photocopy machines. Its chemical dispensing service eliminates disposable containers and reduces the emission of fumes.

Coming soon will be an on-line catalog of Central Store supplies and a system for ordering by electronic data interchange, which allows access to vendor catalogs. For now, you can place your orders by

Calling ext. 1123 or 1932
Sending e-mail to lena.miller@ncar.ucar.edu
Sending a fax to ext. 1127 or 1136
Sending a note through interoffice mail
Stopping by the store

You'll find the Central Store in ML room 072, part of the space formerly occupied by the High Altitude Observatory in the southwest end of the second basement, just east of the Fitness Center. Lena invites one and all to come by and get acquainted during the grand opening tomorrow afternoon. Refreshments will be served from 1:00 p.m. on, and vendors from Eastman, Newark Electronics, Fisher Scientific, Richard Young Products, and other firms will be on hand to answer questions and discuss their products. BH

-----Volunteers Needed for Art Committee

Information Services seeks volunteers to serve on the Art Advisory Committee, which selects artists whose work is displayed in the Mesa Lab gallery and cafeteria. The committee is made up of three NCAR staff members, each appointed by the NCAR director to serve two-year terms, and two professional artists from the local community to serve as advisers. Twice a year, the committee examines samples submitted by local artists and selects artists to display their work for one month each in the gallery and for two months in the cafeteria. The next judging will be held 11 August.

If you would like to serve, please call Nita Razo, ext. 8606, for an application by 30 June. The final selection from the list of volunteers is made by the Director's Office.

-----Don't Become a Statistic: Learn Tips on Crime Prevention

The Wellness Committee and the Health, Environment, and Safety Committee are joining forces to sponsor a crime prevention seminar at UCAR. Crime Free America encourages people to take responsibility for their own safety and give them practical tips to help them do so effectively. The information and statistics used in Crime Free America presentations come from recognized authorities such as the Federal Bureau of Investigation, the U.S. Justice Department and attorney general, and local police departments. Topics covered include practical procedures to follow to protect yourself on the street and in your car, as well as tips on protecting your home. A variety of safety items will be available for purchase (there is no obligation to purchase these items).

The fast-paced, entertaining, and informative hour is presented by Kris Franz, a professional speaker, educator and motivator for over 20 years. She has taught thousands of men and women life-saving ideas and practical procedures that anyone can use. Two sessions have been scheduled:

Wednesday, 15 June, 2:00 p.m.

ML Main Seminar Room

Thursday, 23 June, 9:30 a.m.

FL Auditorium

Please contact Sharon Hsi, ext. 8714, e-mail hsi@ncar.ucar.edu, to register. Indicate which session you would like to attend and how many will be attending. Family members over the age of 18 are invited to attend.

-----Get Your Purchase Requisitions In Soon

While it is not yet the end of fiscal year 1994, the end is not that far away. Last year we placed 35% of the dollar volume of purchase orders (POs) in the months of August and September, with 25% in the month of September alone. We in Contracts cannot do that this year, so please plan accordingly. With the imposition of the NSF's 2% carry-over rule, I feel that there may be a number of programs waiting until the last minute to submit purchase requisitions (PRs). Because of workload and system response time, we probably will not accept other-than-emergency PRs after 14 September. I realize that this is early in the month, but if we go any longer I cannot guarantee that the PO will get into the system in FY 94.

On another topic, from time to time we get calls to change either the Account Key or Object Code on a PR or PO. We cannot change either an Account Key or an Object Code on a PR or PO without a

PR requesting the change, signed by a person with signature authority on the Account Key.

We appreciate your help and cooperation. Bob Greenwald,
Contracts

-----Corrections

On page 2 of the 26 May issue of Staff Notes, two photo captions were inadvertently reversed. Our apologies go to the people pictured (Bob Serafin, Brian Bevirt, and Justin Watt). Also in the 26 May issue, above the ML and FL Fitness Center class schedules on page 5, Cathy Shaver is listed as the contact for evening ML and noon FL aerobics. Cathy actually is the instructor for noon ML and evening FL classes, as noted by her initials beside those classes. Staff Notes regrets the error.

-----What's Cooking in the Cafeteria

MONDAY, 13 JUNE

Mushroom Beef Rice Soup
Monte Cristo Country Hearth Picnic Sandwich
Fettucine Primavera (with steak strips) and Multi-Grain Roll

TUESDAY, 14 JUNE

Spanish Soup
Submarine and Chips (regular or low-fat)
Barbecue Pork Sandwich and
French Fries/Watermelon Wedge
Chile Relleno Casserole, Fresh Salsa, Jalapeno Cornbread

WEDNESDAY, 15 JUNE

Vegetable Barley Soup
Marshall Field Sandwich
Greek Salad
Dilly Barbecued Turkey Breast, Herb Corn on the Cob, New Potatoes

THURSDAY, 16 JUNE

Navy Bean Soup
Beefeater Sandwich/Tossed
Green Salad
Veggie Hero Chicken or Vegetable Mu Shu, Fried Rice

FRIDAY, 17 JUNE

Canadian Pea Soup
Pizza - Chicken Cordon Bleu or Mushroom, Black Olive, and Spinach
Fajitas
Baked Fish Fillet, Orzo, Vegetable

Luncheon Winners:

FL -Mark Bradford

ML - Dennis Shea

VISITORS

B. H. Ahn, Kyungpook National University, South Korea.

Interest: Auroral ionospheric electrodynamics.

27 June - 20 August. FL2 room 3032,

ext. 1566.

--Art Richmond, HAO

Robert Allan, Commonwealth Scientific & Industrial Research
Organization, Victoria, Australia. Interest:

El Niño-Southern Oscillation and climatic variability in
contemporary and historical data. 15 - 19 June.

ML room 202A, ext. 1706.

--Ann Modahl, CGD

Juerg Beer, EAWAG, Duebendorf, Switzerland. Interest: Solar-
terrestrial relationship. 1 August 1994 - 1 August 1995. FL2 room

3032,

ext. 1566.

--Dick White, HAO

Mitchell Berger, University College, London, England. Interest:

Solar physics and turbulence theory.

3 July - 3 August. FL2 room 3030,

ext. 1538.

--Boon-Chye Low, HAO

Michele Betsill, University of

Colorado at Boulder. Interest: ENSO information value. 31 May -

19 August. FL2 room 2020, ext. 8122.

--Michael Glantz, DIR

Bernard Bonsang, Centre Des Faibles Radioactivites, Cedex,

France. Interest: Atmospheric science. 9 - 10 June. ML room

482A, ext. 1420.

--Brian Ridley, ACD

Forrest Briscoe, Harvard College. Interest: Climate change rates
and processes. 13 June - 2nd September.

FL2 room 2022, ext. 8111.

--Michael Glantz, DIR

Stanley Changnon, Illinois State Water Survey, Champaign.

Interest: Water resources and climate change. 25 - 26 May.

--Michael Glantz, DIR

Joergen Christensen-Dalsgaard, Aarhus University, Denmark.

Interest: Helioseismology. 3 July-10 August. FL2 room 3052, ext.

1529.

--Tim Brown, HAO

Katia Ferriere, Observatory Midi-Pyrenees, Toulouse, France.

Interest: Galactic dynamo. 20th July - 17 August. FL2 room 3002, ext. 1516.

--Peter Fox, HAO

Marcel Goossens, Katholieke Universiteit Leuven, Heverlee, Belgium. Interest: MHD waves. 6 - 21 August. FL3 room 2029, ext. 8320.

--Tom Bogdan, HAO

Dale Haidvogel, Rutgers University. Interest: Oceanography. 15 June - 15 August. ML room 426B, ext. 1366.

--Peter Gent, CGD

Didier Hauglustaine, Universite Paris VI, Cedex, France. Interest: Tropospheric chemistry. 25th July - 8 August. ML room 391, ext. 1436.

--Brian Ridley, ACD

Michael Helfert, NASA. Interest: Rates and processes of deforestation and desertification. 17 - 23 July.

FL2 room 2017, ext. 8118.

--Michael Glantz, DIR

Detlev Helmig, University of California, Riverside. Interest: Biogeochemistry. 1 April 1992 - 31st July 1994.

ML room 020, ext. 1454.

--Patrick Zimmerman, ACD

Bert Holtslag, Royal Netherlands Meteorological Institute, De Bilt. Interest: Atmospheric boundary layer. 1 June - 28 August.

ML room 309, ext. 1328.

--James Hack, CGD

Theresa Huang, University of Michigan. Interest: Numerical modeling of the middle atmosphere; dynamic, radiative, and chemical interactions and feedbacks. 8th June 1994 - 7th June 1995. ML room 274, ext. 1649.

--John Firor, DIR

Michael Knolker, Kiepenheuer-Institut für Sonnenphysik, Freiburg, Germany. Interest: Wave propagation in radiating fluids. 1 - 22 August. FL2 room 3012, ext. 1547.

--Tom Bogdan, HAO

Franck Lefevre, Groupe de Meteorologie de Grande Echelle et Climat, Cedex, France. 20 May - 6th June.

--Guy Brasseur, ACD

Vikram Mehta, NASA Goddard Space Flight Center. Interest: Decadal - multidecadal climate variability.

6- 8 June.

--Gerald Meehl, CGD

Yves Morel, LEGI-IMG, Cedex, France. Interest: Oceanography.

9 May - 12 September. ML room 602, ext. 1720.
--James McWilliams, CGD

Aake Nordlund, Copenhagen University Observatory, Denmark.
Interest: Solar convection and the solar dynamo. 1-30 July. FL2
room 3030,
ext. 1538.
--Axel Brandenburg, HAO

Lee Panetta, Texas A&M University. Interest: Oceanography. 7
June - 19 August. ML room 428B, ext. 1366.
--James McWilliams, CGD

Robert Parkin, University of Colorado at Boulder. Interest:
Economics of climate variability and change.
17 May - 11 August. FL2 room 2020, ext. 8113.
--Kathleen Miller, DIR

Marc Parlange, University of California, Davis. Interest:
Precipitation variability. 15 August - 9 September. FL2 room 2020,
ext. 8113.
--Richard Katz, DIR

Christophe Peymirat, Research Center of Environmental Physics,
Moulineaux, France. Interest: TIE-GCM. 1 July-30 August.
FL2 room 3072, ext. 1582.
--Art Richmond, HAO

Marilyn Raphael, University of California, Los Angeles. Interest:
Heat transports in the atmosphere and model output. 1 April- 30
September. ML room 220E, ext. 1708.
--Kevin Trenberth, CGD

Peter Speth, University of Koln, Germany. Interest: Dynamic and
synoptic meteorology. 6 - 11 June. ML room 220D, ext. 1360.
--Roland Madden, CGD

James Sulzman, Longmont, Colorado. Interest: Atmospheric
chemistry. 1 June 1994 - 1 March 1995.
ML room 591, ext. 1423.
--Elisabeth Holland, ACD

Rudolf Weber, Paul Scherrer Institute, Villigen, Switzerland.
Interest: Large-scale meteorology. 6 June -
17 July. ML room 202E, ext. 1710.
--Roland Madden, CGD

Wanli Wu, University of Michigan. Interest: Middle atmosphere
modeling. 5 July 1993 - 4 July 1995.
ML room 569, ext. 1874.
--Anne Smith, ACD

TOMORROW IS CENTRAL STORE'S GRAND OPENING

If you enjoy finding a bargain and helping the environment, you can do both at once by patronizing UCAR's new Central Store. This operation, which opened on Monday, 6 June, at the Mesa Lab, is working with all UCAR and NCAR entities to combine stocks of frequently used tools, electronic components, office supplies, shipping and packing supplies, computer disks and supplies, and the like. By pooling inventories and projecting usage, the store offers these items to divisions and programs at a savings.

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- Sending a note through interoffice mail
- Stopping by the store

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WANT SOME SUMMER REST AND RECREATION? COME TO THE INAUGURAL FAMILY PICNIC

UCAR and NCAR's first-ever summer picnic will be held on Saturday, 25 June, from 10:00 a.m. to around 4:30 p.m. at Boulder County's Beech Open Space, near Neva Road and U.S. Highway 36. Sponsored by the Employee Activities Committee (EAC), this event replaces the former all-staff spring and fall parties held on site. The goal is to provide a variety of recreational options and a friendly, family-oriented feeling. Staff are invited to bring along families or significant others and make a day of it.

Eats: Lunch will be served from noon to 2:00 p.m. Hamburgers and veggie burgers, hot dogs, beans, salads, ice cream, ice tea, lemonade, and beer will be provided, along with lots of chips. Beverages will be available throughout the party.

Games: There will be volleyball, softball, horseshoes, and lots of other games and activities for kids of all ages. An interdivisional tug-of-war competition will also take place. Stay tuned for news on how to sign up.

Getting there: Since parking is very limited at the Beech Open Space, you are strongly encouraged to make use of the shuttle bus service that the EAC is providing. For this service UCAR has obtained exclusive use of a 44-passenger bus from the University of Colorado. Shuttle runs will originate at the parking lot in front of the Foothills Lab, Building 2, on the hour from 10:00 a.m. to 4:00 p.m. Each run will stop 15 minutes after the hour along the north side of the 1500 block of Canyon Boulevard (where the regular southbound UCAR shuttle stops) and continue north to the park. Returning shuttle runs will leave the Beech Open Space at 40 minutes past the hour from 10:40 a.m. to 4:40 p.m., stop at the Foothills Lab on the hour, then make the downtown stop at 15 past the hour (11:15 a.m. to 5:15 p.m.), again on the 1500 block of Canyon, north side of the street.

Survival tactics: There is a large pavilion at the park, and the EAC is renting a large tent to provide shelter from the sun or rain. However, seating is quite limited, so it's a good idea to bring lawn chairs or blankets. Other items to consider bringing: sunscreen, hats, favorite games, baseball or softball gloves, and Frisbees.

We hope to see you there! The EAC

A LETTER TO STAFF FROM RICK ANTHES

With the completion of this year's performance reviews and salary adjustment cycle, I wanted to thank you for your cooperation in implementing the new system and to briefly summarize the results.

First, although no system can be expected to be perfect and satisfy everyone, the new performance review system appears to have worked well. I credit the training sessions held for all supervisors by Human Resources for much of the success in making the transition as smooth as possible. Credit is also due to the supervisors who implemented the new process. Second, all organizational units in UCAR followed the guidelines established by the management of UCAR, NCAR, and the UCAR Office of Programs. In particular, the UCAR-wide cap on salary increases of 3.3% and the 2.5% cap on NCAR and UCAR employees supported by indirect costs (overhead) were adhered to. (Exceptions were made for certain small units based on carefully justified factors such as anomalously low compa-ratios and internal equity issues.) Also, there were no significant differences among groups of employees (for example, between exempt and nonexempt, male and female, or white and nonwhite).

I know that some employees are disappointed at the lower salary increases this year compared to recent years. However, as discussed at the several recent town meetings, I believe that constraining salary and benefit costs at UCAR is an important way of dealing with a budget that is increasing only slowly at best. The tradeoff is literally between size of program and staff and size of salary and benefit increases. We will continue to closely monitor compensation trends in organizations similar to UCAR to maintain fair and competitive salary and benefits at a cost we can afford.

Thanks again for your cooperation and understanding. Suggestions for improving administration of the process are welcome and should be sent to Human Resources in care of Mark Weaver.

NCAR FORECASTERS TAKE FIRST PLACE IN NATIONAL CONTEST

NCAR took top honors in the recently concluded National Collegiate Weather Forecasting Contest for 1993 - 94. The NCAR team earned the best overall score among the 31 institutions that participated. The universities of Oklahoma and Michigan rounded out the top three teams. This year's contest drew a record number of over 650 students, faculty and staff from colleges, universities, and research centers in the United States and Canada.

Chris Davis (MMM/RAP) placed first in the faculty/staff division of the contest and finished second overall. Other NCAR forecasters that finished in the top 10% nationally, in order of placement, were Morris Weisman and Chris Snyder (MMM), Peter Neilley (RAP), and Ed Szoke (MMM/RAP). Morris also topped the faculty/staff division in forecasting weather for the cities of Philadelphia, Pennsylvania, and Las Vegas, Nevada, while Ed took the divisional crown for Springfield, Missouri, and Greg Stossmeister (RAP) did the same for Great Falls, Montana.

The NCAR team included 15 forecasters with various degrees of experience, representing five different divisions. Forecasters in the contest predicted the next day's high and low temperatures and precipitation amounts each day during a two-week stint for each of 13 different cities around the country. Forecasts were sent electronically to Pennsylvania State University, which scores and administers the contest. The 1994 - 95 competition gets under way in September; watch Staff Notes in late summer for details on how to participate.

NCAR director Bob Serafin (center) congratulates Peter Neilley (left), who organized NCAR's championship team for the National Collegiate Weather Forecasting Contest, and Chris Davis (right), who won first place in the contest's faculty/staff division.

SO LONG, SIG STENLUND

It wouldn't be surprising to catch Sig Stenlund sailing out from NCAR tomorrow in a giant balloon, like a belated Wizard of Oz. Alas, Sig will be retiring in a more ordinary fashion. But he's leaving behind a nonordinary legacy of innovation in adapting balloons for atmospheric research.

Sig is wrapping up 23 years as an engineer in the Atmospheric Technology Division (ATD). He came to NCAR in 1970 after almost a decade at G. T. Sheldahl, a balloon manufacturing firm in Northfield, Minnesota, and "one of the main sources for NCAR balloons at the time," Sig recalls.

"I was fortunate enough to be involved [at Sheldahl] in developing the first superpressure balloon for the U.S. Air Force," says Sig. For NCAR, the Air Force, and other users, these balloons enabled long-term sampling of the stratosphere at a time before satellites had come of age. Launched from Southern Hemisphere sites such as Christchurch, New Zealand, and Ascension Island, the balloons amazed researchers with their in-flight longevity. "When one of our first balloons achieved a 30-day flight, we felt it was a major success. But after I got to NCAR, I realized that anything less than 30 days of flight was a dismal failure. Some of our balloons survived for two years."

At Sheldahl, Sig helped construct a balloon as tall as the Empire State Building (around 1,100 feet, or 330 meters). His creations at NCAR with scientist Vin Lally and others in the Global Atmospheric Measurements Program (GAMP) were less mammoth but still impressive, in the range of several dozen feet in diameter. They were designed to circle the earth at a given latitude, says Sig. "I handled the mechanical launch equipment, logistics, and balloon design. I used to spend a lot of time working with the balloon manufacturers, such as Raven and Sheldahl." One of Sig's specialties was devising launch vehicles that could accelerate balloons to the ambient wind speed, easing their take-off. Platforms for shipboard launch were another focus of his work.

In the late 1980s, after NCAR stopped using superpressure balloons, Sig began designing parachutes for dropwindsondes (the weather-instrument packages dropped from airplanes). His patented square-cone parachute is now used by the Air Force to obtain measurements in and around hurricanes.

Born close to Northfield, Sig went to St. Olaf's College before starting work at Sheldahl. He worked briefly for Pepsico (then Pepsi-Cola), designing a mirrored-dome pavilion for the company at the 1970 World's Fair in Osaka, Japan. "That was an exciting time - lots of well-known people came to our pavilion, including the future Emperor Akihito and Empress Michiko. I thought about inviting them over to my place while they're in Colorado this month," he laughs, "but I doubt they'd come."

Sig and his wife, Betty - a familiar face to many as a temporary receptionist in the Outreach Program several years ago - will use their east Boulder home as a jumping-off point for travels after Sig's official retirement tomorrow, 10 June. "We'd like to do more camping - in Arizona during the winter and Wyoming in the summer. I've got a few jobs around the house and some activities I looked at doing a few years ago when I was laid off for a time. But I'm also saving some time for shooting and hunting." Friends and colleagues are invited to help launch Sig's retirement at a 3:00 p.m. party tomorrow in the ATD atrium (north side of the second floor, FL1). BH

-----Summer Construction Will Affect ML Exterior, Air Conditioning

Facilities Engineering and Space Management asks for your patience and cooperation this summer as they embark on a retrofit of the cooling system in the Scientific Computing Division to accommodate NCAR's increasing computer power. The job will impact Mesa Lab and Fleischmann Building staff in several ways.

This week Sun Construction is bringing in scaffolding and shoring materials and beginning preparations for cutting the top off the enclosure for cooling tower CT-2, just north of the bridge on the west side of ML. Saw cutting is scheduled to start today, 16 June, and end on Tuesday,

21 June, with concrete to be removed 22-23 June. Throughout this process a crane will be used to remove the concrete, and the work will generate noise, mud, and dust. Maintenance will work with the contractors to prevent dust from being drawn into the building through the outside air intakes.

Ram Mechanical is also beginning work this week that will continue through the month of August. Most of it will take place in mechanical room 1A, adjacent to the computer room. There will be considerable activity taking place behind the building as the contractors bring equipment and supplies to the site. A crane will be used to remove the old chiller, bring in the new chiller, and to lower the new cooling tower into place. The cooling tower enclosure will be open until the new tower is in place and the grating covering the opening of the enclosure is put back into place. This enclosure is 17 feet (5 meters) deep and will be protected by a construction fence, but it is a hazard area and will be treated as such.

For both projects, Maintenance will work with the contractors to avoid contaminating the Mesa Lab with dust and odors. Some reduction in air-conditioning power may occur in the Mesa Lab and Fleischmann Building during especially hot periods. Staff are invited to contact Julie Emo, FESM department manager and mechanical engineer, ext. 8539, emo@ncar.ucar.edu, if they have questions or need further information as this project evolves.

-----Congratulations, Steve, Rob, and Jeff!

The winners of the 1994 T-shirt contest sponsored by the Employee Activities Committee, and the prizes they will receive, are below. The shirts will debut at the summer picnic to take place on Saturday, 25 June, from 10:00 a.m. to around 4:30 p.m. at Boulder County's Beech Open Space (see last week's Staff Notes for details). Adult T-shirts will cost \$10, youth T-shirts \$8, and adult sweatshirts \$15. T-shirt colors are slate, sandstone, and berry, and sweatshirt colors are ash, royal, and red. If you can't make the party, you can contact your EAC T-shirt representative (Gang Lu, FL, and Barb Vlasity, ML) to make a purchase.

First place: Steve Deyo (UCAR)Ñ\$50 plus free T-shirt

Second place: Rob Andzik (ATD)Ñ\$25 plus free T-shirt

Third place: Jeff Cole (RAP)Ñfree T-shirt

-----TCI Cablevision Picking Up Sunergy Broadcasts

Arrangements have been made for future broadcasts of the Sunergy programs, a production of Sun Microsystems (SMI), to be carried on channel 53 (educational TV) in the Boulder area. The series presents topics of interest to the technical/computer community about every two months via satellite video transmission. Previous programs have dealt with subjects such as the National Information Infrastructure and the Mosaic/Web distributed information tools. Up to now, these programs have only been viewable by individuals or companies which have a satellite dish and other reception gear. The University of Colorado will now receive these programs via its satellite dish and feed them to TCI Cablevision so that anyone with a connection to TCI will be able to view future Sunergy programs. (The broadcast and taping service formerly provided at the Mesa Lab is being discontinued.)

The next Sunergy broadcast will occur on Thursday, 28 July, from 9:30 to 11:00 a.m. local time, on object technologies. For further information, contact the SMI Sunergy Office, e-mail sunergy@sun.com.

-----Safety Notes: Plan a Trouble-Free Vacation . . .

Summertime usually means at least one vacation. The following tips from Health, Environment, and Safety Services officer Steve Sadler may prove useful in making sure your trip is both enjoyable and safe.

--Discourage burglars while you're away by making your home look occupied. Set up timers to turn lights on and off, and ask neighbors to pick up your mail and newspapers each day.

--If driving, give your car a pretrip tune-up. Alter your driving style according to your load: a heavier vehicle has slower acceleration and longer stopping distances and will sway on curves. Insist that everyone wear a seat belt. Take frequent breaks (at least every two to three hours) or switch drivers often.

--Use sunscreen with a minimum protection factor of 15. Reapply after swimming or vigorous exercise.

--Make sure all family members know how to swim if they go near water. Always watch small children in the water even if they are good swimmers. Check the depth of the water before diving in.

--Choose hotels that have smoke detectors. Locate fire exits, count doors to the exit, and discuss escape plans with your children. Knowing an escape plan in advance allows you to avoid panic and bad decisionsÑdecisions that could cost your life. UCAR's Health, Environment, and Safety Services has created a brochure, "Surviving A Hotel Fire," with guidelines for pre-emergency planning and tips in the event of a hotel fire. You can receive this potentially life-saving brochure from your nearest Health, Environment, and Safety

Committee member or from Ginger Hein, ext. 8555, e-mail
hein@ncar.ucar.edu.

--Finally, beat the post-vacation blues by planning some enjoyable activities for your first days back.

. . . And Don't Forget Emergency Contacts

If you haven't updated your emergency contacts recently, there's no time like the present! Contact Sharon Hsi, ext. 8714, e-mail hsi@ncar.ucar.edu, to request an emergency information card. With this, you can update your address (in case it has changed recently), the person(s) who should be notified in the case of an emergency, and other pertinent information.

Summer travel time is also a good time for staff who suffer from medical conditions that require special consideration during an emergency (diabetes or asthma, for instance), to make sure they are wearing a medical alert bracelet or necklace.

-----FL Electronic Stockroom Still Open for Business

The NCAR Electronic Stockroom, located in the Foothills Lab, Building 1, continues to offer its customers the same fine service that it has provided over the past 30 years. Store manager Ed Aden will continue to research your hard-to-find components. Feel free to call Ed, ext. 8758, for any electronic part needs for your development and maintenance programs.

-----Reminder: UNICOS Orientation

If you are new to computing at NCAR and want a quick leg up, come to this summer's UNICOS Orientation Class being offered by the Scientific Computing Division on Wednesday, 29 June, from 8:30 a.m. to 4:30 p.m. in FL2 room 1001. This one-day lecture gives you basic information about job submission, NCAR's mass storage system, graphics processing, and software libraries. It also introduces UNIX/UNICOS programming tools. (A basic working knowledge of UNIX is required.) For more details and to register for this free class, please send e-mail to scdinfo@ncar.ucar.edu or call SCD User Information, ext. 1225.

-----New Hires

Catherine Andrulis, student assistant II with NAO. FL2 room 3049, ext. 1507.

Michele Betsill, graduate research assistant with ESIG. FL2 room 2020, ext. 8122.

Steven Carson, student assistant III with CGD. ML room 314B, ext. 1376.

Emily House, library circulation assistant with ISS. ML library, ext. 1183.

Loretta Quinn, administrative secretary with JCP/PO. FL3 room 140,
ext. 8627.

-----Departures

Lynne Bennett 3 June
Marie Boyko 27 May
Melissa Dixon 17 May
Selena Drum 19 May
Jason Helland 27 May
Hayden Mathews 1 June
Barbara Mendez 1 June
Matthew Rice 27 May
Kristen Womer 31 May
Gary Zuiderveen 22 May

-----What's Cooking in the Cafeteria

MONDAY, 20 June

Bear River Barley Soup
Turkey Tortilla Roll-Ups
French Dip and Onion Rings
Ravioli and Rigatoni (with or without Italian sausage), Tossed Salad, and French
Bread

TUESDAY, 21 June

Cold Gazpacho Soup
California Croissant
Chef's Salad
Chicken Burrito with Green Rice and Chile Beans

WEDNESDAY, 22 June

Chicken Noodle Soup
Chile Dog and Fries
Mushroom Muffin and Spinach Salad
Roast Turkey with Dressing, Cranberry Sauce, and Vegetable

THURSDAY, 23 June

Fresh Tomato and Corn Soup
Grilled Rubeen Sandwich and Fries
Garden Bagel or Smoked Turkey Bagel
Beef Stir Fry, Fried Rice, and Egg Roll

FRIDAY, 24 June

Pepper Pot Soup
Tarragon Chicken Salad Pita with Grape Granish
Pizza--Classico (meat or vegetarian)
Linguine with Clam Sauce, Vegetable, and French Roll

Luncheon Winners:

FL - Peter Hildebrand
ML - Chris Cantrell

Join 550 other employees

each pay period in
using your debit card
in the cafeterias!

COMET MODULE WINS INVISION MULTIMEDIA AWARD

UCAR's Cooperative Program for Operational Meteorology, Education, and Training (COMET) recently earned a prestigious national award for one of its multimedia training modules. COMET earned a bronze medal in the technical training category of the 1994 Invision Multimedia Awards, sponsored by NewMedia magazine. The placement was the second highest in COMET's category.

"It's really nice to know that people outside the meteorological community appreciate what we're doing," says Wendy Abshire, a COMET meteorologist and one of the team that developed the winning module, Boundary Detection and Convection Initiation. Wendy accepted the award on behalf of COMET at a multimedia conference that drew over 100,000 people to Atlanta, Georgia, on 23 May.

Some of the other people involved in creating the winning module include Brian Heckman, manager of COMET's Distance Learning Program and project leader for the module; subject matter experts Jim Purdom (National Oceanic and Atmospheric Administration, or NOAA) and Jim Wilson (Atmospheric Technology Division); contributing science adviser Larry Dunn (National Weather Service, or NWS); meteorologist John Weaver (NOAA); and instructional designers Carl Casey and Sherwood Wang (George Mason University) and Brent Wilson (University of Colorado at Denver). The module was programmed by Ed Dawson (Poseidon Systems) and John Murphy (COMET), and the U.S. Air Force Academy was instrumental in its production.

COMET began developing interactive, multimedia training modules on laser disc in 1991. (Following a flurry of home use in the late 1970s, laser discs remain popular as a convenient way to store large amounts of audio and video data in an interactive format.). Six modules have been completed: Workshop on Doppler Radar Interpretation, Boundary Detection and Convection Initiation, Heavy Precipitation and Flash Flooding, The Forecast Process, Numerical Weather Prediction, and Marine Meteorology. Over a dozen more are in production or planning stages. Funded by the NWS, Air Weather Service, and Naval Meteorology and Oceanography Command, the modules have proven efficient and effective in training forecasters on special topics that their formal schooling might not have treated in depth.

Each module contains 4 to 12 hours of instruction that can be digested in 20- to 40-minute segments at the learner's home office. About 600 copies of a module, each containing one to four laser disks, go to the U.S. government for eventual use by about 8,000 forecasters. Another 100 copies are being sold to other weather services and to universities by Weather Information Technologies, Inc.

The winning module is designed to guide forecasters in using Doppler radar data and other information to recognize where and when small-scale zones of converging wind may produce thunderstorms. It allows

the user to issue sample forecasts, with the feedback provided via text, graphics, and video of Jim Wilson and Jim Purdom.

The first three COMET modules earned high marks by users in an evaluation last year, proving more effective than any previous on-site training program. Among the comments: "The concept is fun. . . . It's a great training aid," and "These are light years ahead of the other things we've had."

"This is quite an accomplishment for our Distance Learning Program," says COMET director Tim Spangler, "because it represents recognition from outside of the meteorological community and validates our role as innovators in the field of education and training. The vision behind the Distance Learning Program is that of Brian Heckman, who conceived of this approach to education and training in meteorology and insisted that it be done with education professionals." --BH

THE MAKING OF A MODULE: INSTRUCTIONAL DESIGNERS AT WORK

Gayle Munson is one of COMET's five instructional designers, the people who bring meteorological concepts into the realm of computer-based learning. After several years of public school teaching and exposure to the use of technology in education, Gayle realized the powerful instructional and motivational potential of multimedia. She began a graduate degree in educational technology at the University of Northern Colorado and, not long afterward, came to COMET. "It's vitally important," says Gayle, "to incorporate sound learning theory, developmental and design procedures, and instructional practices when human performance is being affected. We're making every attempt to create a solid foundation for the modules based on leading research in the field."

In the past year or two, Gayle's main task has been readying a series of three modules on marine meteorology. The NWS, U.S. Navy, and other agencies are charged with predicting waves, offshore winds, storms, and other marine phenomena. But sometimes the responsible staff have not been trained explicitly, or recently, to do so. The creation of each COMET module begins with analysis of specific training needs for agency staff; for example, marine forecasters need to make timely, accurate forecasts for an environment with complex, interacting forces and limited data. Designers work closely on each module with a team of experts, including two or three subject experts who are intimately involved in the module's approach as well as its content. Other team members include graphic artists, programmers, and video production experts.

For the first module on marine meteorology, Munson devised a museum analogy she calls "The Marine Meteorology Plexeum of Exploration," with the word "plexeum" coined from "museum" and "plexus" (a network of integrated, interrelated parts). Each room of the plexeum corresponds to a different topic. Students have a suggested touring sequence but may roam the virtual hallways at will. One room has video clips of people who use marine forecastsÑthe skipper of the USS Eisenhower (one of the world's largest ships in use), a lobster

trapper from coastal Massachusetts, and othersÑexplaining the ways they use the forecasts. Another room has a set of questions structured similarly to the "Jeopardy!" game show: columns are headed with such categories as "Wave Characteristics," and more "money" is awarded for answering progressively tougher questions.

Stephen Lyons, an expert on marine meteorology from the NWS regional headquarters in Fort Worth, Texas, is featured prominently in the module. Most concepts are presented directly by Lyons, consistent with the "cognitive apprenticeship" learning model that lies behind all of the modules, says Munson. "It's the attempt to make visible to the learner the thought processes used by experts." --BH

ON THE ROAD: MARIE BOYKO HEADS FOR NEW HORIZONS

"Basically, I intend to redefine my life by doing a lot of exploring." That's how Marie Boyko is looking at the future right now. Marie's position as manager of the Information and Education Outreach Program was eliminated earlier this year as part of a reorganization putting some group members within UCAR Corporate Affairs and keeping others within NCAR. For Marie, the layoff has opened the door to new opportunities and directions.

It was serendipity that brought Marie to NCAR in the first place. Brought up in Boston, Marie earned her bachelor's degree in history at Cornell University. Not long afterward, in 1972, she headed for graduate school at the University of Colorado (CU). "I came specifically to see the West, because I had the impression it was more open-minded than the East. The master's program was really an excuse for me to find out." And, she adds, "Like any good Bostonian, I had the intention to return to civilization once I'd done my exploring."

When tight funding at the CU Department of Classics depleted the fund for supporting master's students, Marie found herself job-hunting in Boulder. She'd gained experience on the IBM MT/ST-- "their first, clunky word processor"--while working in Boston. NCAR's publishing group had an opening for an MT/ST operator in May 1973, and Marie filled the bill. "Essentially, I took the first job I was offered. A lot of things fell neatly into place after that"--including the fact that the group was then located in the Colorado Building on 14th Street and Walnut Street. Marie had no car at the time. "If the job had been on the mesa, there's no way I'd have been able to accept it."

Within a year, Marie had become a copyeditor for the group, and by 1979 she had worked her way to manager. In 1987, an administrative restructuring placed Marie and the group together with the fledgling Education and Tour Program and the former Information Office. The broadening of NCAR's external publications program toward a more comprehensive outreach and lay science education effort had begun.

"I really welcomed the change of direction," recalls Marie, "because it's one I thought we'd needed for a long time. That opening-up process was the most exciting thing for me." Marie and her staff's outreach efforts grew to encompass a bona fide exhibits program, increased educational efforts (in tandem with other UCAR staff), and the placement of periodicals and reference material on the Internet.

Although Marie's 21 years on the NCAR staff concluded on 27 May, she'll be at the Foothills Lab this summer, teaching the writing course for undergraduates in the Summer Employment Program: "I enjoyed teaching this class in its first three years in the mid-1980s, and I'm delighted to be doing it again." At the same time, she plans to finish her master's degree in nonprofit management at Regis University.

The future? Marie's love of learning and of young people may lead her toward teaching, she says. Her eyes are definitely on the road

ahead. "I have a lot to explore, a lot of options. I'm excited and curious to see how it turns out." --BH

YOU CAN MAKE A DIFFERENCE: PARTICIPATE IN UNITED WAY THIS YEAR

Today marks the beginning of this year's UCAR/NCAR Boulder County United Way Campaign. Boulder County United Way is an independent, nonprofit fund-raising corporation and volunteer organization whose mission is "to enhance the capacity of the community to meet the human service needs of its people."

"I think it's important to provide employees with a way to contribute to the community of which we are a part," says NCAR director Bob Serafin. The UCAR/NCAR Boulder County United Way campaign does just that: it provides employees with the opportunity to participate in building a better community.

Staff may contribute to Boulder County United Way (which serves Boulder, Lafayette, Longmont, and Louisville), to any other United Way agency, or to any nonprofit, tax-exempt organization. By contributing through our annual campaign, employees can take advantage of having their contributions made through payroll deduction.

This year's United Way Campaign theme is participation. "It is our hope that all employees will choose to take part in the campaign, regardless of the size of their donation," says Bob. In future Staff Notes articles, committee members will highlight staff who volunteer for, or who have been helped by, a Boulder County United Way-funded agency.

If you have any questions about the UCAR/NCAR campaign or about Boulder County United Way, please contact any one of the committee members listed below. Thanks for your support! --Rachel Ames

--United Way Campaign Committee Members:

Ron Alberty, COMET
Rachel Ames, RAP (cochair)
Toni Biter, MMM
Lori Bustamante, UCAR
Antonietta Capotondi, ASP
Joe Choy, SCD
David Erickson, ACD
Reta Gates, DIR
Holly Howard, CGD
Kym Kram, UNAVCO
Mark Laudy, JCP/PO
Stacy Long, OIES
Kay Miloshevich, COMET (cochair)
Sandy Nilsson, Unidata
Art Richmond, HAO
Bob Snow, ATD
Russ Rew, Unidata
Carol Smith, VSP

Sandy Sundquist, FSS
Curt Zukosky, ISS

1994 CEDAR WORKSHOP BRINGS 350 TO NCAR THIS WEEK

The National Science Foundation's CEDAR program (Coupling, Energetics, and Dynamics of Atmospheric Regions) is holding its ninth summer workshop in Boulder this week, 20 - 25 June. The workshop is hosted by the High Altitude Observatory (HAO), with support from the University of Colorado. It includes plenary meetings and workshops on topics related to ground-based studies of the atmosphere between the stratosphere and the magnetosphere. Around 350 persons are attending from 35 universities and 28 research installations, including 13 locations outside the United States. NSF supports students every year; this year, 161 are participating.

Tutorial speakers are addressing the mesosphere, ionospheric effects of lightning, auroral acceleration processes, and other planetary ionospheres. A special session is focusing on computer networking and telescience (the latter involves directing instruments toward long-distance data acquisition). HAO senior scientist Ray Roble is giving the CEDAR Prize Lecture, "Modelling the Circulation, Temperature and Compositional Structure of the Upper Atmosphere (30 - 500 kilometers [20 - 300 miles])." Ray's and other lectures are being videotaped and transcripts made available for students and researchers following the workshop.

Posters are a regular part of the CEDAR workshop, with about 75 presented this year. Most are presented by students, and prizes are awarded for the best student posters. Last year, an additional prize for one student, Monica Coakley (University of Wisconsin - Madison) was being asked to participate as the first student member of the CEDAR Steering Committee. A special workshop this year on student experiences was developed by students and recent graduates. --Barbara Emery, HAO

-----Take Part and Give to United Way

Last week was the start of UCAR/NCAR 's annual Boulder County United Way Campaign. You should have received United Way literature and a pledge form from your campaign representative. If you did not, refer to the 16 June issue of Staff Notes for the names of the United Way Campaign Representatives. If your division or program does not have a representative, please contact Kay Miloshevich (COMET) or Rachel Ames (RAP).

In keeping with its theme of participation, the campaign committee encourages staff to support United Way or other charitable organizations within the community. This can be provided with your time or with a monetary donation. Those who benefit from your participation are friends, neighbors, and even coworkers. Here 's more about this year 's campaign:

Fill out your pledge card and return it with the raffle ticket to Kay (FL3) or Rachel (FL2). Regardless of your choice to make a monetary donation, please consider volunteering some time. Note the information in your packet regarding the Volunteer Connection, an agency that matches volunteers with non-profit organizations.

In addition to the end-of-campaign drawing, there will be weekly raffle prize drawings. Look for the winners in Staff Notes in the weeks to come. Some of the prizes include NCAR shirts and sweatshirts, movie tickets, restaurant gift certificates, \$100 cash, gift certificates for local merchants, and free massages.

The campaign committee has made special preparations with the EAC for the upcoming inaugural family picnic to be held this Saturday, 25 June. Look for balloons and face painting for the little ones.

Don 't miss future articles featuring staff members who have volunteered for or who have been helped by United Way - funded agencies, as well as information about how to volunteer your time to a nonprofit agency.

The United Way Campaign Committee extends its thanks for your participation in this year 's fund-raising effort and in supporting your community.

-----UNICOS Orientation Introduces Programming Tools

The UNICOS Orientation Class will be held from 8:30 a.m. to 4:30 p.m. on Wednesday, 29 June, at the Foothills Lab and repeated on Wednesday, 21 September, at the Mesa Lab. This class introduces UNIX/UNICOS programming tools and the NCAR computing environment and requires a good understanding of basic UNIX. Topics covered include make and makefiles, shell scripts, NCAR hardware and access methods, Mass Storage System commands, CFT77 and CF77, library and segldr considerations,

fmgen, the NQS (Network Queueing System) batch system, job accounting, graphics facilities, and debugging with cdbx. To register, send e-mail to scdinfo@ncar.ucar.edu or call ext. 1225.

-----Still Time to Volunteer

The Outreach Program seeks volunteers to serve on the Art Advisory Committee, which selects artists whose work is displayed in the Mesa Lab gallery and cafeteria. The committee is made up of three NCAR staff members, each appointed by the NCAR director to serve two-year terms, and two professional artists from the local community to serve as advisers. Twice a year, the committee examines samples submitted by local artists and selects artists to display their work for one month each in the gallery and for two months in the cafeteria. The next judging will be held 11 August.

If you would like to serve, please call Milli Butterworth, ext. 8601, for an application by 30 June. The final selection from the list of volunteers is made by the Director 's Office.

-----Paul Rotar Retires

Paul Rotar of the Scientific Computing Division will be retiring after 31 years at NCAR. There will be a reception for him Wednesday, 29 June, at 4:00 p.m. in the west end of the cafeteria. Paul 's friends are invited.

-----Take Advantage of Development Courses

All staff should have received a 1994 Staff Development Catalog through interoffice mail earlier this month. The catalog lists courses developed by Human Resources to address the needs of UCAR employees as identified by the Divisional Equity Committees and the Institutional Equity Committee. All courses listed are available at no cost to employees. To enroll in a course, please contact Jodi Wiemer, employment and staff development administrator, ext. 8717.

-----No SN the Week of 4 July

Due to the Fourth of July holidays, Staff Notes will not be published on 7 July. Any material that needs to appear before 14 July should be submitted by the regular deadlines for the 30 June issue. If you have questions, contact Bob Henson, ext. 8605, e-mail bhenson@ncar.ucar.edu.

-----Correction

Loretta Quinn was listed in last week 's New Hires as being an administrative secretary with JCP/PO. She actually is with UCAR/GLOBE.

-----What 's Cooking in the Cafeteria

MONDAY, JUNE 27

Bear River Barley Soup

Chicken Cordon Bleu Sandwich/Grapes

Tacos - Meat or Bean

Hungarian Goulash with Wide Egg Noodles and Vegetable

Start off the week with a Root Beer Float! (regular or diet)

TUESDAY, JUNE 28

Sopa de Maiz Soup

BLTT - Bacon, Lettuce, Tomato and Turkey

Tuna Melt with Fresh Veggie Sticks

Super Nachos (meat or vegetarian)

WEDNESDAY, JUNE 29

4TH OF JULY - HOLIDAY SPECIAL

Connecticut Corn and Bean Soup

Dandy Dagwood

Spicy Tofu Cheeseburgers/Chips

Barbecue Ribs, Baked Beans, Fresh Corn on Cob

Firecracker cake and ice cold watermelon complimentary with meal!

THURSDAY, JUNE 30

Tomato Rice Soup

German Sausage , Sauerkraut, and Grated Swiss Cheese Sandwich

Pizza - Sausage Alfredo or Artichoke Alfredo

Chicken Tenders and Honey Mustard Dip with French Fries and

Cole Slaw

FRIDAY, JULY 1

HAPPY JULY 4TH HOLIDAY!

Luncheon Winners:

FL - Michael Booth

ML - Dave Trimble

VISITORS

Abdalkhani Boucham, Belgian Institute for Space, Brussels. Interest:

Atmospheric chemistry. 1st March -

31 August. ML room 569, ext. 1874.

Juan Garrido, Universidad de Extremadura, Badajoz, Spain.

Interest: Stochastic modeling of precipitation. 27 June - 30

September.

FL2 room 2019A, ext. 8374.

--Richard Katz, ESIG

Martin Gorst, Pinewood Productions, London, England. Interest:

TV series on wonders of weather. 20 - 22 June.

--Joan Frisch, UCAR

Chuck Leith, Lawrence Livermore Laboratory. Interest: Climate.

26 June - 5 July. ML room 402C,
ext. 1329.

--Joseph Tribbia, CGD

Daniel Martin, Center for Weak Radioactivity, Cedex, France.
Interest: Atmospheric chemistry and instrumentation. 9 - 10 June.

--Brian Ridley, ACD

Masashiro Murakami, Meiji University, Tokyo, Japan. Interest:
Inland seas. 22 - 23 June. FL2 room 2023, ext. 8117.

--Michael Glantz, ESIG

Joseph Sanak, National Center for Scientific Research, Yvette,
France. Interest: Atmospheric chemistry.

9 - 10 June.

--Brian Ridley, ACD

Rudolf Shterk, Boulder. Interest: Central Asian irrigation
management and climate. 15 June - 15 August.

FL2 room 2023, ext. 8117.

--Michael Glantz, ESIG

Mark Stoelinga, Pennsylvania State University. Interest: Simulation
of mesoscale weather systems.

1 June 1994 - 31 May 1995.

FL3 room 3002, ext. 8148.

--Bill Kuo

Yukari Takayabu, NASA Goddard Space Flight Center. Interest:
Large-scale modeling. 27 - 29 June. ML room 220, ext. 1351.

--Roland Madden, CGD

Donna Tucker, University of Kansas. Interest: Orographic roots of
MCSs on Great Plains. 18 June - 15 July.

FL3 room 3080, ext. 8914.

--Bill Kuo and Peggy LeMone, MMM

Ilana Wainer, Cicade Universitaria, Brazil. Interest: Oceanography.
15 June - 15 September. ML room 602, ext. 1720.

--William Holland, CGD

GRAPHIC SERVICES IS NOW UNDER ONE ROOF

Miles of walking are sure to be eliminated and new modes of digital communication are set to be explored - as Graphic Services (Graphics, Audiovisual Services/Photographics, and Copy Center/Process Camera) consolidate in a newly remodeled space. The airy, open layout fills a square in the midst of the Mesa Lab's second basement.

Accomplished two weeks ago, the move came nearly 20 years since the last move for Graphics and even longer for Photographics and the Copy Center. The new quarters feature an open-space motif for all except the Copy Center and a small darkroom.

"I think most of the group is excited about the move," says Justin Kitsutaka, Graphic Services manager. "The new space fits our identity as a group working on common projects and sharing the latest technology."

Along with the physical move comes the beginning of a much different move for Graphic Services - a shift toward all-digital treatment of images and publications. The process will take months, even years, to complete, but it promises quantum leaps in efficiency and versatility for scientists and others who make use of the group's services. "The bottom line," says Justin, "is reduction in turnaround time, total control of every image, and the elimination of redundant tasks."

All photographs eventually will be scanned from slide or negative film and stored in digital format. Some images will be transferred to Photo CDs, which "seems to be the most cost-effective format right now," says Justin. Using software such as Adobe PhotoShop, the Photographics staff will be able to remove scratches and imperfections from any image. Instead of traditional prints, the shop expects to be providing digitally produced dye-sublimation prints by later in the year.

"We are looking at keeping the digital stock of images on-line in some type of archive, possibly the NCAR mass storage system," says Craig Ruff (Scientific Computing Division, or SCD), who is working with Justin on digital imagery techniques. "These images would then be available to all staff. In-house compact-disc mastering is another possibility."

SCD's Text and Graphics Server (TAGS) now can put either 35-millimeter or four-by-five inch images onto slides. "We are working on new TAGS macros that use the full frame of 35-mm mounted slides for high-quality presentation slides. Digital images could even be incorporated into videotape output."

Another source of high-quality transparencies in sizes as large as 8 1/2 x 11 inches is the DICOMED film recorder. A recent

improvement in the DICOMED process now allows full-frame recovery of standard slides, whereas formerly some of each image was lost in the conversion to 8 1/2 x 11-inch sizes. On request, Graphics can use the DICOMED to add text and to supply professional backgrounds for slides.

To help subsidize their new services within the current UCAR accounting system, Graphic Services will shift to a cost-recovery procedure for its services, including black-and-white prints, in the coming fiscal year. Color separations will go to an outside production house, as before.

If you'd like to see the new Graphic Services space, you're invited to an open house to be held in the near future. Watch Staff Notes for details. --BH

NCAR SCIENTISTS, ELECTRA HEAD TO CANADA FOR BOREAS

Are the vast woodlands of Canada playing a major role in the evolution of climate over North America and the entire globe? A large field experiment now under way in south central Canada is using satellites, aircraft, and ground-based observing stations, along with computer models, to profile the relationship between the boreal (northern) forests and the surrounding atmosphere.

BOREAS, the Boreal Ecosystem Atmosphere Study, is a two-year international project culminating in three field phases this summer that will trace the beginning, peak, and end of the northern growing season, from mid-May to mid-September. NCAR scientists participating in BOREAS include Al Cooper (Mesoscale and Microscale Meteorology Division, or MMM, and Atmospheric Technology Division, or ATD), Ken Davis (Advanced Study Program), Jim Greenberg (Atmospheric Chemistry Division, and ACD), Don Lenschow (MMM/ATD), and Steve Oncley (ATD). The Electra research aircraft is also joining the project this summer.

The primary U.S. sponsor of BOREAS is the National Aeronautics and Space Administration. Other major U.S. sponsors include the National Oceanic and Atmospheric Administration, the National Science Foundation (NSF), and the Environmental Protection Agency. Canadian support is coming primarily from National Resources Canada, the Atmospheric Environment Service, Parks Canada, Agriculture Canada, and the National Research Council. At the field sites this summer will be several hundred participants from Canada, Denmark, France, Germany, Russia, the United Kingdom, and the United States.

Remote and sparsely populated, the boreal forest separates the prairies of the Great Plains from the tundra of the Arctic. It extends in a northwest-southeast belt running from the Yukon Territory to Ontario. The BOREAS study region is a rectangle covering most of Manitoba and Saskatchewan. Two smaller intensive study areas are located within this region on either side of the boreal belt, near Prince Albert, Saskatchewan, and Thompson, Manitoba.

One major question the BOREAS researchers hope to answer concerns the role that the boreal region plays in storing carbon. Scientists are presently unable to track the destination of some of the carbon that is released into the atmosphere in the form of carbon dioxide and other gases. Recent studies suggest that the boreal region may be one of the missing "sinks" for this carbon.

Because the processes of atmospheric chemistry are so tightly linked, the researchers in BOREAS will be sampling many kinds of gases. The Electra research aircraft, owned by NSF and based at Jeffco, will fly between the Prince Albert and Thompson field sites,

taking air samples along the way. Some samples will be shipped to Boulder for analysis by ACD to determine the amounts of carbon dioxide, methane, and other constituents present.

Air-flow measurements taken from aboard the Electra - flying as low as 100 feet (30 meters) - will reveal how trace gases are circulating in and around the BOREAS region and what factors control the exchanges of energy between the boreal forest and the atmosphere. One new instrument on the Electra measures the concentrations of trace gases in air parcels moving upward or downward to determine the net transport of carbon by those gases. Another instrument, developed and operated by the Institute of Atmospheric Physics of the German Aerospace Research Establishment, is a lidar (similar to radar but using laser beams instead of radio waves) that measures atmospheric water vapor and aerosol distributions between flight level and the ground.

The second major question being addressed by BOREAS is the potential impact of climate change on the boreal forest itself. Computer models show that the subpolar northern latitudes from around 45° to 65°N could be the region of earth most affected by global warming due to increased carbon dioxide and other greenhouse gases. Such warming - which could average as much as 10°C (18°F) in these regions over the next century - might substantially change the makeup and functioning of the boreal forest. Changes in the forest, in turn, would alter local weather and climate patterns. Studies of the north and south fringes of the forest, where temperature contrasts are the greatest, will shed light on what might happen to the forest in a changing climate. Seasonal variations also will be analyzed across the three study periods.

In order to improve computer models of global climate, a better understanding is needed of how small-scale interactions between plants and the atmosphere translate to larger scales. Specialists in plant ecology at BOREAS will be measuring variables such as soil moisture, leaf area, and radiation absorption for regions as small as a single tree. These data will be connected to local measurements of air, heat, and momentum flow, then extended to progressively larger scales and eventually connected to global satellite data and climate models. --BH

SUMMER AND SEP RETURN TO UCAR

As reliably as the swallows return to Capistrano, summer brings a select group of eager undergraduates to UCAR for an introduction to the career world of a national scientific laboratory.

For the 14th summer, UCAR's Human Resources - sponsored Summer Employment Program (SEP) will fulfill the dreams of young minority students who aspire to careers in a scientific environment. For ten weeks, the SEP students will be residing in Boulder and reporting to work under the tutelage of UCAR staff. Included in the curriculum of each student will be a technical writing course to prepare them for the culmination of their stay: writing the results of their work in technical papers and presenting the papers to an audience of their peers and other employees.

Coordinator Anna Reyna-Arcos provides a special touch of nurturance in her oversight of the program. Among the annual activities she plans is a field trip to Colorado State University's graduate school of atmospheric science. There the students will see the path that UCAR hopes many of them will follow - the path to a career in atmospheric research.

Following are the names, majors, institutions, and UCAR advisers for the students who were selected from more than 200 applicants to participate in the 1994 program. All staff are invited to welcome this year's SEP students at a reception this afternoon, 23 June, from 3:30 to 5:00 p.m. in the Foothills Lab cafeteria atrium. --Madeline Williams, HR

SEP Students

Manuela DeSantiago, mathematics, University of Texas at El Paso.

Adviser: Grant Branstator, CGD

Sandra Pulido, mechanical engineering, San Diego State University.

Adviser: Dan Gablehouse, HAO

Kimberly Presley, electrical engineering, North Carolina

Agricultural and Technical State University. Adviser: Larry

Cornman, RAP

Tanya McLendon, communication, University of Colorado at

Boulder. Advisers: Karon Kelly and Nita Razo, Information

Support Services

Kandis Boyd, meteorology, Iowa State University. Adviser: Peggy

LeMone, MMM

David Flores, aerospace engineering, University of Colorado at

Boulder. Adviser: Julie Haggerty, ATD

Quindi Franco, economics and science/technology/society, Pomona

College. Adviser: Greg McArthur, SCD

Preston Heard, Jr., mathematics/meteorology, Jackson State

University. Adviser: Steven Williams, UCAR

Benjamin Barreras, environmental engineering, University of

Washington. Adviser: Margaret Bruehl, UCAR

Matthew Uller, atmospheric science, University of California, Los

Angeles. Advisers: Michael Exner and Charles Spaur, UCAR
Edgar Estupinan, chemistry, North Carolina State University.
Adviser: Elisabeth Holland, ACD
Raul Martinez, mechanical engineering, University of Colorado at
Boulder. Adviser: Ramalingam Saravanan, CGD

-----Missed the Picnic? T-Shirts Are Still Available

Despite sweltering heat, the first annual summer picnic for UCAR and NCAR staff and family was a success. An estimated 250 people came to Boulder County's Beech Open Space to play games, enjoy refreshments, and relax. The many children on hand were entertained by a balloonist/artist and a puppeteer (the latter being the mom of the Employee Activities Committee's Chris Pankratz).

This year's UCAR/NCAR T-shirt was introduced at the picnic. If you didn't make the scene, don't despair - plenty of shirts are left. Adult T-shirts are \$10, youth T-shirts \$8, and adult sweatshirts \$15. This year's T-shirt colors are slate, sandstone, and berry; sweatshirt colors are ash, royal, and red. Contact your EAC T-shirt representative (Gang Lu, FL, ext. 1554, or Barb Vlasity, ML, ext. 1322) to make a purchase.

-----Statistics Colloquium Set for 6D19 July

NCAR's Statistics Project is sponsoring a colloquium, Applications of Statistics to Modeling the Earth's Climate, in Seminar Room 6 through 19 July. The Statistics Project is sponsored by the Mathematical Sciences Division of the National Science Foundation (NSF). Its goal is to encourage the use of modern statistical techniques in the geophysical sciences. NCAR participants in the program are principal investigators Rick Katz (Environmental and Societal Impacts Group) and Roland Madden (Climate and Global Dynamics Division, or CGD) and co-investigators Linda Mearns, Kevin Trenberth, Joseph Tribbia, and David Williamson, all of CGD.

Besides encouraging interactions between scientists and statisticians on site, two important missions of the project and the colloquium are to facilitate an exchange of ideas beyond UCAR and to interest young persons in problems involving statistics, modeling, and analysis of the climate system. Thirty-two graduate students who have expressed an interest in applying statistics to the geophysical sciences are attending the Colloquium. Tutorials will focus on climate, objective analysis, scaling, and spatial ARMA (autoregressive moving average) processes. Other, more specialized talks on a wide variety of statistical problems in atmospheric and ocean sciences are scheduled.

Along with 10 NCAR scientists, there will be 18 visiting scientists speaking at the colloquium:

Arthur Dempster, Harvard University
Lev Gandin, National Meteorological Center (NMC)
Richard Gunst, Southern Methodist University
Peter Guttorp, University of Washington
Greg Holloway, Institute of Ocean Sciences, Victoria, British Columbia
Richard Jones, University of Colorado at Denver Health Sciences Center

Paul Julian, NMC
 Cecil Leith, Lawrence Livermore National Laboratory
 Robert Livezey, NMC
 Edward Lorenz, Massachusetts Institute of Technology
 Allan Murphy, Oregon State University
 Benjamin Santer, Lawrence Livermore National Laboratory
 Richard Smith, University of North Carolina at Chapel Hill
 Jean Thiebaut, NSF
 Grace Wahba, University of Wisconsin-Madison
 Edward Waymire, Oregon State University
 Rudolf Weber, Paul Scherrer Institute, Villigen, Switzerland
 Francis Zwiers, Canadian Climate Centre, Victoria, British Columbia

Any interested persons are welcome to attend the colloquium. For a schedule, contact Ronna Terrell Bailey, ext. 1717, e-mail ronna@ncar.ucar.edu.

-----In The Galleries: Ju-Hui Liu

The work of Boulder artist, Ju-Hui Liu will be shown in the second-floor gallery of Mesa Lab from 2 through 29 July. Ju-Hui Liu has been cultivating the Chinese art of Shui-Mo (water-ink) painting for more than half a century. His work has been exhibited in Taiwan as well as in the United States. For more information about the show please contact the artist at 499-5957.

-----What the Dumpster Divers Found

Here are complete results from the waste audits conducted on 15 December 1993 at ML and on 16 February at FL. Each audit represents a 48-hour generation period at each site. The figures for each item are the total weight to the nearest pound and the percentage of that component in the site's total audited waste. Items already taken from the waste stream in our current recycling efforts (such as items in the deskside containers) were not included in the audit.

Product	Mesa Lab	Foothills Lab
Cardboard	27	9
Compost	183	150
Glass	13	5
Metal	16	6
OfficePak	100	123
Packing Material	6	1
#2 Plastic Bottles	3	2
White Ledger	26	36
Newsprint*	22	
Mixed Media**		3
Total Recyclable	396	335
Nonrecyclable Trash	264	98
Plastic	46	30
Total Nonrecyclable	310	128

Total 706 463

*Newsprint was inadvertently collected as part of OfficePak in the FL audit.

**Mixed media packaging was not considered recyclable during the ML audit.

-----UCAR Fitness Centers/July 1994 Class Schedule

This calendar includes all classes endorsed by the Wellness Advisory Committee. Be sure you have signed a release form (available at both fitness centers). There are no classes at FL on Fridays and at either center on official UCAR holidays. For fees and class-content information, contact the instructors below unless otherwise noted. Instructors' initials are listed beside each class.

NOTE: Maura Hagan's FL aerobics classes will not be taught from 30 June through 27 July.

Evening FL, noon ML aerobics Cathy Shaver, 530-7702
Intermediate ML aerobics Marla Meehl, ext. 1301, marla@ncar.ucar.edu
Noon FL aerobics Maura Hagan, ext. 1537,
hagan@ncar.ucar.edu
Tai chi Gerry Wiener, ext. 8417, gerry@ncar.ucar.edu
Yoga instructor, Laura Allard
sign-up, Tres Hofmeister, ext. 8415,
tres@ncar.ucar.edu

Date/Time	Monday	Tuesday	Wednesday	Thursday	Friday
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11:00 a.m.-noon	Yoga (LA)	Yoga (LA)	Yoga (LA)		
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noon-1:00 p.m.		Interval step aerobics (MH)			
		7/28 only			

4:30-5:15 p.m.		Tai chi (GW)		Tai	
chi (GW)					

5:30-6:30 p.m.	Step aerobics (CS)	Step aerobics (CS)			
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11:00 a.m.-noon (LA)		Yoga			
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12:15-1:15 p.m.	Low-impact Low-impact aerobics (CS)		Body toning (CS)		
aerobics (CS)					

5:15-6:15 p.m. Intermediate

Intermediate

aerobics (MM)

aerobics (MM)

There will be no Staff Notes next week because of the Fourth of July Holidays. Have a good one!

-----New Hires

Leonard Cumley, project account manager with UCAR. FL1 room 2026, ext. 2134.

William Golesorkhi, student assistant III with HAO. ML room 100, ext. 1230.

Raymond Lord, software engineer/programmer with MMM. FL3 room 3003, ext. 8145.

Cindy Worster, administrative secretary with HAO. FL2 room 3130, ext. 1552.

-----Departures

Gerardo Decanio 15 June

Susan Henry 8 June

Darrell Holley 19 May

Laney Mills 14 June

Kathryn Poling 16 June

Sigvard Stenlund 10 June

Robert Upthegrove 3 June

William Wachs 9 June

-----What 's Cooking in the Cateteria

MONDAY, 4 July

HOLIDAY

TUESDAY, 5 July

Posole Soup (vegetarian)

Meatball Sandwich with Mini Raviolis

Turkey Salad on Kaiser Bun with Mixed Fresh Fruit Cup

Smothered Burrito with Green Chile (pork or vegetarian)

WEDNESDAY, 6 July

Beef Noodle Soup

Teriyaki Steak with Grilled Onions and Curly Fries

Eggplant Parmesan Sandwich

Lemon Chicken Breast with New Potatoes and SautŽed Spinach

THURSDAY, 7 July

Summer Vegetable Soup

Submarine (regular or low fat)
Seafood Louie Salad
Meat Loaf or Vegetarian Loaf, Scalloped Potatoes and Fresh Vegetable

FRIDAY, 8 July
Vegetarian Chowder
Guacamole Bacon Burger and Fries
Grilled Tuna Steak Sandwich
Lasagna (beef or vegetarian) with Garlic or French Bread

Luncheon Winners :
FL - Mary Ann Pykkonen
ML - Karl Hanzel

VISITORS

Carlos Byers, Houston (Texas) Chronicle. Interest: Ozone depletion.
7Ð8 July. UN suite 330, ext. 8607.
--Joan Frisch, UCAR Media Relations

Arthur Fisher, Popular Science magazine, New York City. Interest:
Ozone depletion. 7-8 July. UN suite 330,
ext. 8607.
--Joan Frisch, UCAR Media Relations

Jeff Rosenfeld, Weatherwise magazine, Washington, D.C. Interest:
Weather and climate. 7Ð8 July.
UN suite 330, ext. 8605.
--Bob Henson, UCAR Outreach

Nick Hewitt, Lancaster University, United Kingdom. Interest:
Atmospheric chemistry. 7ÊAugust 1994Ð
31 January 1995. ML room 580,
ext. 1414.
--Pat Zimmerman, ACD

Justin Jay Hnilo, University of Alabama in Huntsville. Interest:
Climate and global dynamics. 27ÊJuneÐ29 July. ML library carrel 9, ext.
1351.
--James Hurrell, CGD

Andrew Hsu, University of Colorado at Boulder. Interest: User-
friendly scripts. 1 JuneÐ2ÊSeptember. FL3 room 2068, ext. 8191.
--Terry Clark, MMM

Egidio Landi, University of Firenze, Italy. Interest: ASP analysis.
1 AugustÐ15 September. FL2
room 3070, ext. 1564.
--Andy Skumanich, HAO

Eliza Manzini, Max Planck Institute for Meteorology, Hamburg, Germany. Interest: General circulation modeling of the troposphere-stratosphere.

8D13 July. ML room 202A, ext. 1706.

--Warren Washington, CGD

John McCormack, University of Arizona. Interest: Atmospheric chemistry. 18D29 July. ML room 569, ext. 1481.

--Claire Granier and William Randel, ACD

Charles Piety, Georgia Institute of Technology. Interest: Atmospheric chemistry and measurement techniques and instruction. 24 JuneD

8 July. ML library carrel 12, ext. 1461.

--Fred Eisele, ACD

Jack Williams, USA Today, Washington, D.C. Interest: WISP, NEXRAD, RAP. 7-8 July. UN suite 330, ext. 8607.

--Joan Frisch, UCAR Media Relations

DAVE CARLSON IS NEW ATD DIRECTOR

As TOGA COARE winds down, a scientist who helped organize and lead it is moving on to a new and rather fitting challenge. Dave Carlson - who has served as director of UCAR's Tropical Ocean and Global Atmosphere Program (TOGA) Coupled Ocean-Atmosphere Response Experiment (COARE) International Project Office since 1991 - becomes the new director of NCAR's Atmospheric Technology Division on 1 July. He succeeds Rit Carbone, who has directed ATD since 1989 (see sidebar).

TOGA COARE was a massive multinational field program focused on the ocean-atmosphere interactions in the tropical western Pacific. A better understanding of these interactions is critical to resolving questions about how the ocean and atmosphere interact in a global system, determining the feasibility of predicting regional climate variations, and assessing long-term climate change. Dave coordinated and led the planning for COARE and directed operations during the intensive observing period from November 1992 to February 1993. Now the project is in its final, data-management phase, and that effort will continue through 1996 under data manager Richard Chinman. Carlson says he also will continue to be on call for COARE.

That experience with TOGA COARE, says Dave, was both a qualification and an inducement for taking the ATD director's job. "In COARE, which was probably the biggest use of ATD people and facilities ever, I got to know the people face to face. I saw what they do, hands on, on a day-to-day basis and got to know very broadly the ATD facilities, because most of them were used in that project. I don't need to be introduced to what ATD does and how well they do it, because I've been the beneficiary of it."

Dave came to UCAR from what he now thinks of as a relatively quiet, "previous life" as an oceanography professor at Oregon State University. To go from the steady, continuing responsibility of a university professor to running TOGA COARE, he says, was a "burst of responsibility, and not just for me, but for UCAR. What impressed me was how UCAR responded to that burst, how people stepped up and took responsibility, worked long hours . . . that was very encouraging. I hear constantly about how TOGA COARE stressed the [UCAR] system in all its components: finance, contracts, media relations, facilities, human resources. The system responded extremely well to that stress, especially ATD. It would be premature to declare the data collection a success, but in terms of operations, we can declare wild success. It's no surprise that I would want to stay with such an organization."

What Dave feels he brings to the job of ATD director is a proven ability to work with the university community and the funding agencies simultaneously. "We did that successfully for TOGA COARE and of course ATD does it as part of its existence. We'll continue that and improve on it, especially the way we work with the

university community. As for specific technical plans - platforms, etc. - the division is in good shape. I foresee no immediate technical changes or redirection; we'll focus on the community relations effort." He also realizes that he'll be undergoing a kind of identity change. "I'm now identified professionally with TOGA COARE. People will need to get to know me in this new capacity."

A specialist in dynamics and microchemistry of the ocean surface layer, Dave earned his Ph.D. in oceanography from the University of Maine and did postdoctoral work at the Naval Research Laboratory in Washington, D.C. --
Louise Carroll

WASTE NOT, WANT NOT: UCAR'S AMBITIOUS NEW RECYCLING PROGRAM KICKS OFF IN JULY

Zero, zip, nada, zilch, nothing. However you choose to say it, this is the goal of the Reduce, Reuse, Recycle (R3) Program being implemented this week at UCAR and NCAR. Virtually everything that the institution now throws out is being evaluated for possible reuse, reduction, or recycling.

The program officially kicks off on Monday, 11 July, with new procedures in several UCAR departments. However, the kick-off is actually the beginning of phase two of the project. Many months ago, the "zero waste" concept (originated by a Canadian company) was introduced at a meeting of the Environmental Stewardship Program (ESP). The concept was enthusiastically embraced by members of the ESP, who were disconcerted by the amount of material thrown out on a daily basis. The Reduce, Reuse, Recycle focus group in ESP soon evolved into the steering team for the expansive new R3 Program. This team has been hard at work ever since designing and implementing our own waste reduction strategy.

"There's been a lot of time and energy invested in this endeavor just to get it ready to kick off. It couldn't have been done without the dedication and commitment of everyone involved," says Gaylynn Potemkin, one of the four members of the R3 steering team (see photo on page 1).

Along with securing the endorsement of management, the R3 steering team has been coordinating with local entities, including Eco-Cycle and the city of Boulder, to design and execute this prototypic approach. If all goes well, UCAR could become a national model for other organizations looking to start a waste reduction plan. "This is a very ambitious undertaking, which we hope to share with other institutions," says Gaylynn. "One of our objectives for this program is to formulate a systematic approach to the goal of comprehensive resource reclamation so that other companies will be willing and able to take on this kind of project - learning from mistakes, building on successes. We don't see the point of everyone reinventing the wheel each time."

Dumpster Diving

The first step towards comprehensive waste reduction is a clear understanding of exactly what makes up our waste stream. In order to identify the components, a trash audit (or dumpster dive, as some of the participants put it) was conducted at the Mesa Lab last 15 December and at the Foothills Lab on 16 February. The auditors sifted through two days of trash at each site, or a total of about 1,166 pounds. All of the garbage was hand-sorted into 14 categories based on its recycling potential.

Though it sounds unappealing, the trash audit went smoothly, says

Dean Lindstrom (Traffic Services), and its results were revealing. About 700 pounds of trash were analyzed at ML and 450 pounds at FL. These totals do not include an estimated 422 pounds at ML and 350 pounds at FL that went directly into existing recycling processes without first entering the waste stream. One surprising fact that came to light was the amount of recyclable material that did end up in the dumpsters. Both labs were tossing between 300 and 400 additional pounds of material that was, in fact, recyclable within the existing program. This includes about 100 pounds of mixed office paper and 30 pounds of white paper at each site. (See complete results on page 3). "We see this not as a failure of the current system," says Gaylynn, "but rather as an educational opportunity. It serves as a good benchmark by which to measure the effectiveness of our new recycling strategy."

Food was a major part of the waste stream that is potentially reusable. Sifting through banana peels, orange rinds, and a seemingly endless stream of coffee grounds, the trash auditors found 150 to 200 pounds from each site. Within the new system this material will be diverted from the waste stream, composted, and put to use.

The Action Plan

Armed with the results of the trash audit, the R3 task force set to work devising the following comprehensive approach that would address each of the major waste categories. In some cases modifications were made to the existing methods; in other cases new procedures will be instituted. Ongoing research into new technologies continues to provide new ways of dealing with previously unrecycled waste. The R3 program is designed to stay on top of these advances and to use new techniques wherever feasible.

Composting. Containers for compost will be located in all kitchen and kitchenette areas for collection of food scraps and coffee grounds and filters. These will be emptied daily by the custodians. Cafeteria staff will be separating and collecting compostable material during food preparation. In the short term, a local farmer will be accepting all of UCAR's compostable material. In the longer term, the city of Boulder will haul our compostables to an experimental project site. The longest-term plans incorporate the use of a compost accelerator that produces ready-made compost suitable for use in ML or FL landscaping.

Enhanced recycling of office paper. Since last year, staff have been using deskside containers that allow for the collection of all recyclable office paper. White and mixed office paper will now be collected together in one side of the deskside bins; the other side of the bin will be used for the collection of commingled newspapers and magazines.

Paper-towel and napkin reduction. Facilities Support Services is

looking into the cost and benefits of installing hot-air blow dryers in ML and FL bathrooms as an alternative to paper towels. Food Services manager Velma Ryan is investigating the use of oxygen-bleached paper napkins and coffee filters to replace the ones using a chlorine-based bleaching process. Besides reducing the pollution from chlorine, oxygen-bleached napkins and filters would be compostable.

Packaging recovery. Packaging materials will be picked up by custodial staff and recycled or reused by Traffic Services. The Mesa Lab's new Central Store will also be used as a convenient location for collection and distribution of reusable packing and shipping supplies.

Beverage containers. Aluminum cans and glass bottles will now be commingled in labeled bins at the many collection points throughout UCAR facilities. Plastic pop bottles (number 1) and translucent plastic jugs (number 2) as well as gabled (pointed) milk cartons and juice boxes will also be collected in marked bins in the ML and FL cafeterias. A more detailed list of what is recyclable, and where, will be distributed to all staff during kick-off week. Also, stop by the information tables in the ML and FL lobbies to learn more about any of these points.

Coordination

Drawing from every group and program within UCAR and NCAR, R3 and ESP have assembled a group of resource recycling coordinators. By dividing the buildings into zones, coordinators will be overseeing the recycling efforts for their own locale. Coordinators will be the main link between the R3 steering team and the NCAR community.

"They will be able to keep people apprised of new developments within the recycling program and disseminate information about recycling," Gaylynn says. "As the recycling experts on the block, they mostly will just answer people's questions and help them find ways to minimize waste output. In turn, their feedback to the steering team will ensure that the recycling needs of each particular group or area are being addressed. This two-way communication is imperative to keep us all on track." Gaylynn issues special thanks on behalf of the R3 team to the more than 50 staff who have volunteered to be coordinators: "Without these people, the program would not exist."

Other links are being established as well. UCAR will coordinate with its custodial contractor to ensure that all custodians are aware of the recycling plan and committed to its success. To gauge progress, data on UCAR's recycling and waste streams will be regularly collected from Eco-Cycle and Browning-Ferris Industries.

The steering team reassures staff that this won't be a draconian, heavily policed policy. Nobody will be taking offenders to "trash court" or rooting through your garbage can without your knowledge,

says Gaylynn. "We're operating on the premise that people want to participate, and if they don't, it's just that they don't know how. We're not here to catch people doing it wrong, we're here to help them do it right."

ESP hopes that all staff will join in the campaign and share the goal of a more environmentally friendly UCAR. If you'd like to help by being a resource recycling coordinator, contact Gaylynn (ext. 1618, e-mail potemkin@ncar.ucar.edu). To join the ESP, contact Joanne Dunnebecke (ext. 8431, dunnebec@ncar.ucar.edu). --BH

Kick-Off Week Events

Watch for information tables staffed by R3 volunteers in the ML and FL cafeterias on 11 and 12 July from 10:00 a.m. to 2:00 p.m. Information sessions on recycling office paper, composting, and organic gardening will be scheduled that week, and an environmental products show will take place at the Mesa Lab on 13 July between 11:00 a.m. and 2:00 p.m. and at the Foothills Lab on 15 July between 11:00 a.m. and 2:00 p.m.

RIT CARBONE MOVES TO MESOSCALE RESEARCH, USWRP

As he passes the baton of ATD director to Dave Carlson (see next page), Rit Carbone is beginning a new phase of his own career. Effective tomorrow, Rit will be a full-time senior scientist in the Mesoscale and Microscale Meteorology Division (MMM). At the same time, he is preparing to take on the role of chief scientist for the U.S. Weather Research Program (USWRP), a broad-based mesoscale research effort now being rejuvenated after several quiet years.

Rit says that one of his top priorities at MMM is to "restart my personal program of research." His first order of business is to complete some papers on the Hawaiian Rainband Project (HaRP). Another goal is to prepare for the Maritime Continent Thunderstorm Experiment (MCTEX), scheduled for November and December 1995 just off the north coast of Australia. This multinational program will examine tropical convection over Tiwi Island, looking in particular at coastal and diurnal effects. The size of the island (roughly 5,000 square kilometers, or 1,950 square miles) lends itself to the use of the Electra Doppler radar and high-resolution numerical models. The regularity of convection at Tiwi is another drawing card.

"The locals have dubbed the convection over the islands 'Hector,' " says Rit. "It appears on at least 70% of the days in the Southern Hemisphere summer, and sometimes on almost 100% of the days. This is as close to a laboratory for tropical convection as you can get."

The duties of chairing the USWRP's science team will occupy the rest of Rit's work time. He expects to assume that role on 1 September. "I'll be working with literally hundreds of scientists in the United States and many others internationally to develop this program of research," he says. The National Oceanic and Atmospheric Administration and the National Science Foundation are currently the lead cosponsors, though others are expected to join in later.

"We're using fiscal year 1995 to provide a fresh scientific definition of the program," says Rit. "We will be hosting a large number of mesoscale scientists to examine the state of the science as it applies to weather forecasting, with emphasis on short-term forecasting." Novel research approaches will be welcome, with particular interest in "testable hypotheses and tightly focused inquiries." Societal impacts will be a prime concern, and NCAR's Environmental and Societal Impacts Group is already participating in some USWRP work.

Rit also is chairing a new working group of the World Meteorological Organization on short-term and very short term weather forecasting. He eventually sees the USWRP as feeding into an international program analogous to the current World Climate Research Programme. --BH

UNITED WAY SPOTLIGHT: JOE VAN ANDEL AND SPECIAL TRANSIT

In the next several weeks, Staff Notes will be featuring staff members who have volunteered for, or been helped by, United Way-supported agencies in Boulder County.

The Boulder County United Way provides a myriad of services for several different segments of the community. As an example of how one of these services works, we spoke with Joe Van Andel, a senior software engineer in the Remote Sensing Group of the Atmospheric Technology Division.

Last March, Joe, an avid bicyclist, hiker, and computer scientist, found himself in a serious bicycle accident involving a drunken driver only a few blocks from the Foothills Lab. In a matter of seconds, Joe's life was transformed from one of great independence to one that entailed a significant amount of assistance to do the most basic tasks. He suffered leg injuries that left him unable to drive his own car for such trips as visiting the doctor, attending physical therapy, getting to work, and shopping. Since he chose to continue his busy schedule while rehabilitating from his injuries, Joe used the Special Transit buses extensively. (You may have seen these white-with-blue-trim buses at the library, doctor's offices, shopping centers, and other public areas around town.)

Joe says that this United Way - sponsored service enabled him to get around and continue working. The drivers not only help get riders on and off the bus at the correct time, says Joe, they also pay special attention to their clients' needs. For instance, if someone has two or three doctors to see in a row, Special Transit makes sure that each driver knows the location of their offices and the points where the Special Transit van is to pick up its client.

As Joe recovers from his ordeal, he has only good things to say about the Special Transit buses and how they have helped him keep a near-normal schedule until he is able to drive his own car. "The buses are punctual, and they're operated by some very helpful drivers that understand the special needs of mobility-impaired people." --David Erickson, United Way Committee

This Week's Winners

Each week during this year's campaign, the United Way Committee will be drawing names for prizes from among pledge forms returned by staff. This week:

Leeann Fields (COMET) won a massage

David McFarland (ATD) won an NCAR T-shirt

Will Piper (ATD) won Sunday brunch for two at the Oasis Brewery & Restaurant

Janice Powell (ACD) won two passes to the Basemar Cinema Saver Theater