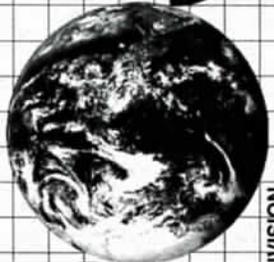


SDATA

EROS DATA CENTER, SIOUX FALLS, SD



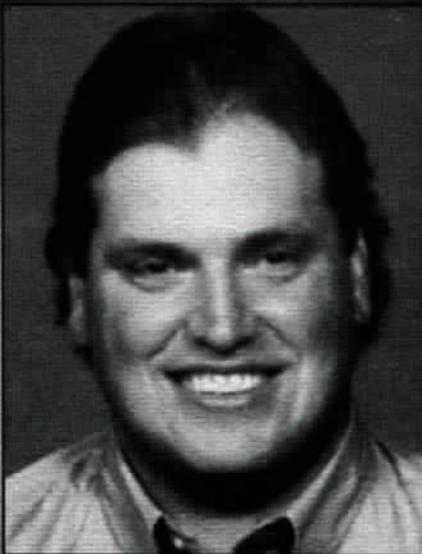
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U.S. GEOLOGICAL SURVEY, NATIONAL MAPPING DIVISION

In Remembrance

John Hunhoff passed away Monday, August 18, 1997 in Houston, Texas after battling cancer since August of 1994. John had traveled to Houston to continue his fight against Hodgkins Disease. He began work at EROS on September 4, 1984 digitizing for the Data Management Branch. John transferred to Production Control in the Computer Services Branch in February 1985. In September of 1991 John joined the Software Development group as a Programmer. He worked as an Information Scientist in the Information Management group since September of 1995.

John was born and raised in Yankton, SD, graduating from Yankton High School in 1979. He attended South Dakota State University, Brookings, SD, and graduated from Southeast Area Vocational Technical



John J. Hunhoff
August 28, 1961 - August 18, 1997

Institute in Sioux Falls, SD.

John loved sports and the outdoors. He particularly enjoyed fast-pitch softball and played for several area teams through the years. In addition to playing organized sports, John also coached and helped with several youth sports programs. He enjoyed hunting and fishing and spending time with his wife, Lori, and sons B.J. (8) and Andy (5).

According to a member of the Hunhoff family who spoke at John's

funeral, one of the last things John said before being hooked up to a respirator down in Houston was, "I was a good dad wasn't I." While John took pride in his work at EROS and everything else he did, the most important part of his life was his wife and two boys. John was a great dad, husband, employee, and friend.

Merchant Receives John Wesley Powell Award

USGS Director Presents Award at EROS Following His Field Trip

Dr. Jim Merchant, a visiting scientist from the University of Nebraska-Lincoln, received the 1997 John Wesley Powell Award August 29, 1997 for significant contributions he's made during the past 8 years to advance the scientific mission of the U.S. Geological Survey (USGS). During a noontime ceremony in the EROS atrium, Dr. Gordon Eaton, Director of the USGS, presented Merchant with the John Wesley Powell Award for his contributions as a partner in remote sensing applications development and research. The land cover mapping data set Merchant worked with USGS staff to develop is used by other Federal agencies and organizations involved with global environmental change studies.

Merchant is the lead researcher of the Nebraska Gap Analysis Program, a fundamental effort to conduct research on land cover, specifically all native plant and animal species of the state of Nebraska. Merchant also works with EROS staff and colleagues at South Dakota State University to improve radiometric calibration and geometric correction of Landsat 7 data, which will improve researchers' ability to characterize the Earth's surface. Merchant also has played a key role in organizing and planning recent Pecora Symposia hosted by EROS staff.

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UP FRONT

1997 was an extraordinarily productive year at the EROS Data Center.

We met almost all of our goals. We set the bar high, so it wasn't easy. As program and project requirements changed, we had to make some difficult skill mix adjustments resulting in staff reallocations. But, our numbers grew, we increased data sales, we reached major milestones on our projects, we installed an antenna to receive Landsat data, we survived an historic hail storm, and we had record numbers of visitors. Now, we enter 1998, a year which I predict will be very special.

It was in the summer of 1973, nearly 25 years ago, the doors to the Center opened and a staff of 62 moved from the temporary facilities at 10th and Dakota in downtown Sioux Falls. We continue

to refer to these pioneers as the down-towners, and 17 of them continue to work at the Center today.

Look at us now, as we approach our Silver Anniversary. This year our staff size should reach 550, our annual budget will top \$37 million, and data sales will be over \$6 million (a number larger than our operating budget in the early years). We will continue strong partnerships with NASA, NOAA, EPA, USAID, DOD and many other cooperators. We will begin to implement integrated data delivery concepts, focusing initially on support for a cooperative effort with a consortium of universities in Ohio.

EOS AM-1 is scheduled for launch in late spring followed later in the year by Landsat 7. These satellite systems bring to the Center new capabilities and added challenges...we must be ready to process, archive and distribute data from these new systems.

With all that, we also will sustain a robust research program that insures relevance to the data and to our hard earned reputation for scientific expertise.

And so, in 1998 with a Silver Anniversary coming up, it is definitely a time to celebrate. A commemorative book is planned. September 14-19 will be EROS Week in the community, with a special focus on educational activities. Dr. Mary Cleave, a former shuttle astronaut, and current research scientist working on global resource issues, will be a special guest during our celebration and at an open house planned for Saturday, September 19.

It is going to be another exciting year--historic, challenging, and a lot of fun!

Donald T. Lauer

Merchant Continued from page 1

Merchant is Associate Professor in the Conservation and Survey Division (CSD), Institute of Agriculture and Natural Resources, University of Nebraska-Lincoln (UNL). He is Associate Director of CSD's Center for Advanced Land Management Information Technologies (CALMIT). In addition, he holds adjunct faculty appointments in UNL's Department of Forestry, Fisheries and Wildlife, the Department of Geography, the Department of Agronomy, and the Department of Agricultural Meteorology. Dr. Merchant received a B.A. in geography from Towson State University, Towson, Maryland, and both the M.A. (1973) and Ph.D. (1984) in geography from the University of Kansas. He has worked in basic and applied research in remote sensing and GIS since 1971. He serves on the USGS EROS Data Center DAAC Science

Advisory Panel. Before coming to UNL in 1989, Dr. Merchant worked with the University of Kansas (KU) Applied Remote Sensing Program for more than 15 years, and served as a faculty member in the Department of Geography at KU for 3 years.

"The John Wesley Powell Award is, by far, the most personally meaningful recognition I have received during my career," said Merchant. "The fact that you presented it to me here (at EROS) in front of my family, friends, and respected colleagues makes it all the more rewarding.

The John Wesley Powell Award is named in honor of a Civil War veteran who later explored the Colorado River. It is presented annually to people or organizations who have made significant contributions to achieving the USGS mission. Known for his geological surveys of the west, Major Powell served as the second Director of the USGS,

1881-1894. The U.S. Geological Survey headquarters in Reston, Virginia bears his name, "The John Wesley Powell Federal Building." ☺



Dr. Gordon Eaton (l), USGS Director, presents Dr. Jim Merchant, EROS Visiting Scientist from the University of Nebraska-Lincoln, with the 1997 John Wesley Powell Award for his contributions to the USGS as a partner in remote sensing applications development and research.

Inter-American Geographic Data Network Conference Visits EROS

Conference Includes NBII Metadata Workshop

EROS staff collaborated with USGS Biological Resources Division personnel and cooperators from NRC Geomatics Canada to host the Inter-American Geographic Data Network (IGDN) Conference. Development of a Geospatial Data Clearinghouse Node, July 14-24, 1997. A key part of the conference included a National Biological Information Infrastructure (NBII) Metadata Workshop. Metadata, or data about data, describe elements such as format, authorship, frequency of update, spatial accuracy, ownership, and field descriptions.

The IGDN is a joint endeavor by the USGS and the U.S. Agency for International Development (USAID) to improve the geographic information infrastructure of the Western Hemisphere. In addition to the USGS and USAID, the Pan American Geography Institute of Geography and History (PAIGH) sponsored the workshop.

Planned as an online cooperative, or clearinghouse, the IGDN will give access to geospatial data providers who use the Internet to ease discovery and access to their holdings. The IGDN also is intended to resemble the NBII, which specializes in biological data. The goal of the Conference was to extend search and browse capabilities via the Internet to international users who seek geospatial and biological data while researching issues dealing with sustainable development.

Workshop Participants

IGDN Workshop participants included scientists from participating organizations who are responsible for server establishment and maintenance. Attendees included people with a background in computer science, geospatial data management, or both and employed with an organization with significant geospatial data holdings and a desire to reach customers via the Internet. People attending the 10-day conference represented many Caribbean and South and Central American nations such as: Brazil, Colombia, the Dominican Republic, El Salvador, Jamaica, Mexico, Nicaragua, and Venezuela.

Workshop Staff

Eight EROS employees played key roles in putting on the workshop. While **Charlie Trautwein** coordinated the workshop, **Michelle Anthony, Ron Beck, Paul Olsen, Rob Quenzer, Ron Risty, Ron Smith, and Jim Verdin** provided support. In addition to EROS staff, three people with the USGS Biological Resources Division, **Jennifer Gaines, Sharon Shin, and Susan Stitt**, helped staff the workshop as well as four people from NRC, Geomatics Canada, **Eva Siekierska, Vaino Varve, Steve Westley, and Donna Williams**.

As commercial industry, universities, and governments increase their use of geographic information systems (GIS) to study their investments and improve research, the demand for readily accessible geospatial data sets continues to grow. The IGDN Conference, which included an NBII Metadata Workshop, gave international users the knowledge they need to access and obtain the geospatial data they want and need. ☺

Summer Picnic

Close to 300 employees enjoyed an afternoon filled with food, music, and games during the EROS Summer Picnic Saturday, August 23, 1997. Members of the 1997 Picnic Committee, co chaired by **Lisa Johnson** and **Rod Beck**, organized a catered lunch consisting of ham and beef sandwiches, pasta salad, fresh fruit, potato chips, cookies, and beverages. Other members of the committee, **Kim Allington, Lisa Burtis, Wayne Dullerud, Arlen Hansen, Treva Houska, Steve Johnson, Bill Kennedy, Mike Rechtenbaugh, and Terry Towns**, organized games for children and adults. Kids activities included tossing water balloons, duck pond "diving," and face painting. Adult entertainment included an egg toss, two-by-four partner races, wagon rides, golf chipping, and the dunk tank. Also Jay "The Balloon Sculptor" Feuquay entertained kids and adults by tying balloons into various shapes resembling animals, plants, and minerals. All in all, the 1997 Summer Picnic proved to be a lot of fun in the hot and humid sun. ☺



IGDN Conference participants access the Internet in the Don Moore Training Room.



Bill Winn makes a big splash in the dunk tank before diving into retirement last fall.

See additional photos on page 11.

Safety Committee Fakes Heart Attack

by Laurie Ortega

On July 30, 1997 Jay Feuquay had a "heart attack." Don't worry, Jay's fine and recovered nicely. The "heart attack" was a drill. Drills, such as this one, are an important duty of the EROS Data Center Safety Committee. The Safety Committee represents every contract at EDC.

Members include: **Brent Nelson, Mark Erickson, Gary Dinkel, Carla Lynn, Chuck Randall, Ron Meyer, Tom Senden and Bob Hammon.** The Committee meets every other Wednesday at 8:30 a.m., in the back half conference room and everyone is welcome to attend and share information.

According to Brent Nelson, HSTX Safety Representative, the drill involving Feuquay started out as a practice run involving the Careflight helicopter from McKennan Hospital. The purpose of the drill was to practice a helicopter evacuation to determine the best spot for landing in case of a real medical emergency. A "heart attack" was added to the drill to give the entire emergency team an opportunity for practice.

The Garretson Fire Department will be the first to respond to the Data Center in

any emergency. Because of its location the minimum response time to EDC will be 10 minutes. Therefore, it is crucial for our EMT's to be well prepared and critical for us to have the proper life support equipment available. The purpose of a drill is to identify problem areas and find ways to correct them. This drill went well. Security was notified at #6911 within 30 seconds and the proper steps were taken to summon the helicopter and to notify the EMT's. The Safety Committee would like to conduct more drills such as this one although time and busy schedules are determining factors. The work of the Safety Committee is considered collateral duty, which means it is done in addition to the regular work assigned. Carla Lynn, EDC Health Activities Specialist, estimates she spend 15-20% of her time on safety issues and could easily spend more because there is always plenty to do.

A major focus of the EDC Safety Committee is to get an "Occupant Emergency Plan" drafted and in place. The Occupant Emergency Plan is the guide describing "What to do in case of an emergency at EDC." The Plan will outline the exact procedure personnel at EDC will follow in the event of a fire,

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(l. to r.) **Carla Lynn, Cindy Jorgensen, Wendell DeGues, and Mike Austad** work on fake "heart attack" victim **Jay Feuquay** during a safety drill last summer.

USGS Opens Dialog at Wildfires Conference

Fire Management Experts Visit EROS July 9-10

Nearly 40 representatives from the USGS and the Federal fire community visited EROS July 9-10, 1997 to participate in a USGS Wildland Fire Meeting. USGS staff hosted this meeting to establish an open and active dialog to acquire insight about the science and technology needs of fire managers nationwide so Survey employees can address their needs.

Leading up to the conference in early July, USGS staff assembled a list of ongoing research or research capabilities related to fire management that included: fire ecology, fire history, fire modeling, smoke modeling, fuels assessment, and remote sensing.

EROS scientists who participated in the conference included **June Thormodsgard, Jim Verdin, and Jeff Eidenshink.** Verdin talked about fire danger assessment using AVHRR data as a tool. Eidenshink opened dialog on fire risk modeling using weather combined with normalized digital vegetation index (NDVI) data. According to Eidenshink, the conference gave EROS staff a good idea of what's going on in other USGS divisions concerning fire management research. "This was a good opportunity for us to find out what people in the Biological Resources Division (BRD) and the Water Resources Division (WRD) are doing with fire management from a hydrologic and ecologic perspective." ☺



Members of the fire management community met at EROS last July to discuss science and technology needs to model and assess wildfires such as above.

EROS Hosts Middle School Students as Part of KidSat Program

One hundred fifteen students from Patrick Henry Middle School in Sioux Falls visited EROS October 3, 1997 as part of their participation in a NASA educational outreach program called KidSat. KidSat is designed to "demonstrate how middle school students can actively make observations of the Earth by using cameras mounted on-board the Space Shuttle to conduct scientific inquiry in support of their earth science studies."

Patrick Henry Middle School is one of about 35-50 schools nationwide that participated in the camera's last Space Shuttle flight (STS-86). While the Space Shuttle was in orbit, 115 Patrick Henry 6th Grade students, under the direction of their teacher, Barb Boone-Graves, actively followed the flight. Students used KidSat web pages to select areas of the world to photograph, then transmit those selections to KidSat for relay to the Space Shuttle. Following Space Shuttle mission STS-86, Boone-Graves and her students have access to several hundred new photos of the Earth that they can use in their classroom earth science studies.

Boone-Graves and her students visited EROS from 9:45 a.m. to 2 p.m., Friday, October 3, 1997 to view videotape of the Space Shuttle launch and docking with

the Russian Space Station Mir. Before returning to school, the students toured EROS, ate lunch in the atrium, and participated in several planned indoor and outdoor earth science activities.

The visit of Patrick Henry Middle School 6th graders to EROS followed classroom presentations by three EROS scientists, **Grant Mah, Charlie Trautwein, and Dave Greenlee**, and a photographic technician, **Mike Austad**, who visited Boone-Graves' classes to discuss several topics related to the KidSat program (i.e., digital camera technology, remote sensing, geography, latitude/longitude, orbit path of the Space Shuttle, etc.). EROS staff who participated in the activities at EROS October 3 included **Paul SeEVERS, Bruce Wylie, Carrie Jucht, Laurie Ortega, Mark Barber, Rhonda Newman, Gray Tappan, Ron Beck, Dennis Bell, and Jeff Hauck.** ☺



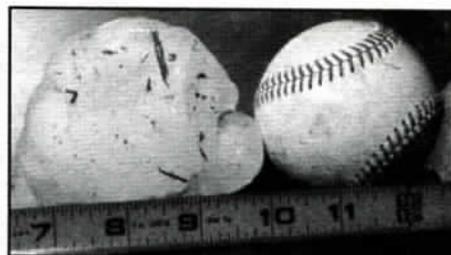
Patrick Henry Middle School Students pause for a group picture near the Domsat satellite antenna in front of the building before returning to class October 3, 1997 following KidSat activities at EROS.

July Hail Storm Pounds EROS Property

Baseball to softball size hail stones pounded the EROS building, solar panel array, and government and employee vehicles during a quick-moving, late-afternoon thunderstorm Sunday, July 13. Damage caused by the storm totaled about 2 million dollars.

Building Damage

According to the National Weather Service in Sioux Falls, gigantic hail stones fell around 4:18 p.m. from a storm which tracked northeast from Hartford, SD into Pipestone, MN during a 2 hour period. The storm suddenly increased in strength as it reached EROS when the system collided with an outflow boundary from weak convection over southwest Minnesota, that was moving west. Most of the damage resulting from the storm affected the roof of the Data Center. Many opaque panels comprising the roof of the atrium were broken or cracked. The hail also shattered the skylight area of the library. Hail stones approaching the size of softballs crumpled communication reception antennas and punched holes through wire mesh commercial satellite television antennas. According to EROS Security guards on duty, the hail hit the roof so hard that rock aggregate the size of small eggs ricocheted from the roof on impact. Some hail stones crushed rock aggregate, causing concern about punctures to the rubber roof membrane. The noise was deafening.



The tale of the tape: A hailstone, measuring 3 inches in diameter, makes a baseball look small.

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Educators Learn About the Environment During 2nd GLOBE Teacher Training Workshop

Fifty-four Sioux Falls Teachers Attend GLOBE Training at EROS During 1997

Thirty teachers from the Sioux Falls School District spent the week of September 22-26, 1997 as students while attending EROS' second GLOBE Teacher Training Workshop. Administered by NOAA, NASA, the National Science Foundation, and the EPA, the Global Learning and Observations to Benefit the Environment (GLOBE) Teacher Training Workshop is a hands-on, minds-on, environmental science and education program that joins students, teachers, and scientists worldwide to study our global environment.

About the Training

Twenty-four Sioux Falls middle school and six high school teachers received training in five GLOBE protocols, or scientific topics of study: water, soils, land cover/biology, the atmosphere, and global positioning satellites (GPS). From 8 a.m. to 5 p.m. each day, teachers attending the workshop took part in extensive classroom and field activities. Field exercises included activities designed to measure the moisture content of soils, the Ph. level of Lake EROS, land cover species identification, cloud formations, temperature, and the operation of portable GPS units.

EROS Trainers and Observers

Three EROS employees joined a team of five trainers from various locations

nationwide to organize and give the workshop. **Mike Oimoen**, Science and Applications Branch, taught the Remote Sensing portion of the training. **Mark Barber**, Program, Budget, and Administration (PBA), worked with **Cheryl O'Brien**, Staff Development, Sioux Falls School District, by serving as the on-site coordinator for the workshop. **Darla Duval**, Data Services Branch, and **Jon Christopherson**, Satellite Systems Branch, participated in the workshop as observers as their work schedule allowed.

Other Valuable Contributors

Other EROS staff who contributed to another successful GLOBE workshop included **Carrie Jucht**, **Laurie Ortega**, **Judy Goetz**, **Terry Pfannenstein**, **Jan Nelson**, **Darla Larsen**, **Nate Keyman**, and **Darin Krempges**, all of PBA. **Barb Hubbling** and **Paul Severson**, Data Services Branch (DSB), also helped by supplying GLOBE training participants with satellite imagery. **Denny Pearson**, DSB, provided photographic products for use by the training team. **Jeff Hauck**, Computer Services Branch, provided computer support for the training. Finally, a special thanks to **Dick** and **Jackie Cole**, EROS Cafe, who catered delicious meals and snacks throughout the week.

The out-of-house trainers sent to EROS by GLOBE office staff in Washington,

D.C. included the following people from across the nation:

- **John Cole**, Facilitator, Ketchum, Idaho
- **Jerry Henzel**, Geologist, Tucson, Arizona
- **Chris Reeves**, Teacher Educator, East Prairie, Missouri
- **Kara Core**, Activity Coordinator, Charlotte, North Carolina
- **Skip Hopkinson**, Hydrologist, West Hartford, Connecticut
- **Vince Hurley**, Computer Tech, Vienna, Virginia
- **Charles Clark**, Computer Tech, Washington, D.C.

EROS staff hosted the GLOBE Teacher Training Workshop in September after holding its first in May 1997. A total of 54 teachers from the Sioux Falls School District attended the workshops. The GLOBE workshops hosted by EROS employees complement the contributions EROS staff have made to the GLOBE Program in the last 2 years. During that time, EROS staff in the Data Services Branch supplied satellite imagery of sites studied by schools worldwide that participate in the GLOBE Program.

Once again, NASA, NOAA, EPA, the National Science Foundation, and EROS offered the GLOBE training at no cost to Sioux Falls teachers. Interest by other area school districts and EROS management support will determine if GLOBE training will be offered to other teachers and schools in the area. EROS staff plan to host GLOBE teacher training workshops each spring and fall until there no longer is a need for this educational outreach program. ☺



Sioux Falls teachers who attended EROS' second GLOBE Teacher Training Workshop, September 22-26, 1997.

Employee News

Milestones:

A New Record! During the month of June, Computer Services Branch Operators turned out more than 4,500 CD, 8mm, DOQ, GTOPO30 data set, and Landsat products.

According to Satellite Systems Branch staff, \$1 million in Distributed Active Archive Center (DAAC) products will be produced during 1997.

A Reason to Celebrate! Science and Application Branch staff recently completed the Global 1-km Land Cover Characterization Data Set.

Congratulations to Kent Lethcoe, who recently celebrated his 20th year of work at EROS.

Congratulations to all EROS staff that took part in the 1997 Corporate Cup competition. Way to go Champs!!!

USGS

Mary Lou East – Mary Lou took an early retirement from the USGS August 29.

Donna Scholz – Donna accepted a 1-2 year reassignment with the USGS Office of Program Support in Reston, which began the first week of September. She will serve as staff assistant to Kathryn Gunderson.

Congratulations to USGS Visiting Scientist, **Jim Merchant!** Jim, a scientist with the Center for Advanced Land Management Information Technologies (CALMIT) at the University of Nebraska-Lincoln, received the John Wesley Powell Award from Dr. Gordon Eaton August 29, 1997 (See cover story.).

Congratulations to **Jean Happel** and **Doug Spelhaug**, who were selected as new Budget Analysts for the Budget and Finance Team within the Program, Budget, and Administration Office.

Char Johnson – Because of added responsibilities, Char has been promoted to GS-9.

Keith Benson – Keith received an On-the-Spot Award for work involving analytical model representation of the TM Thermal Band calibration, and with the technique for relative gain determination on the primary focal plane detectors of Landsat 5.

Larry Tieszen – Larry joined the USGS in July. He leads the International Program while Jim Verdin continues his education at the University of California-Santa Barbara.

Robb Campbell – Robb received an On-the-Spot Award for outstanding support to projects in the Science and Applications Branch such as converting the Historical Landsat Data Comparisons book to the World Wide Web.

Charlie Trautwein – Charlie received an On-the-Spot Award for coordinating the July 1997 Inter-American Geospatial Data Network Workshop at EROS. This workshop was attended by 30 participants from developing countries in Latin America and the Caribbean who learned the use of spatial data clearinghouse technology on the World Wide Web to share data and scientific information.

Jonathan Rogness – Jon received an On-the-Spot Award for the work he performed on mapping surface energy balance from satellite images.

Mike Crane – Mike received an On-the-Spot Award for his work on coordinating the Director's DoI High Plains Field Seminar, which ended with a visit to EROS on August 29.

Robert Valdez – Robert received an On-the-Spot Award for the solicitation, award, and processing for a variety of mission critical projects at EROS.

Vicki Holland – Vicki received an On-the-Spot Award for the solicitation, award, and processing of multiple renovation and construction contracts required for support readiness of Computer Room #2 at EROS.

Terry Towns – Terry received an On-the-Spot Award for her self initiative and exceptional organizational skills in developing an on-line labor/hour collection system. She also has been instrumental in establishing an efficient registration process to insure all visitors to a recent Landsat 7 working group meeting received the necessary materials.

Jane Strand – Jane received an On-the-Spot Award for completing two significant budgetary functions in addition to her already ample information analysis responsibilities.

Rebecca Engebretson – Becca received an On-the-Spot Award for her enthusiastic performance giving EDC tours during a high-demand period as well as backup support for the library.

Dan Wray – Dan received an On-the-Spot Award for his rapid response to a transformer breakdown that seriously jeopardized EROS equipment, supplies, and program data. Dan's efforts during this emergency saved the U.S. government considerable dollars and protected Federal property.

Lisa Kurtz – Lisa received an On-the-Spot Award for her outstanding performance during a high-demand time for EROS tours. She also continued to provide backup support for the library and worked with Becca Engebretson to reproduce ten copies of the USGS Briefing books for EROS Senior Staff members.

Sara Jean Paulson – Jean received a STAR Award for significant contributions to the transition and changes within the International Program at EROS over the last several years.

Tom Kalvelage – Tom received a STAR Award for demonstrating outstanding technical and leadership skills in performing his duties as EDC DAAC Systems Engineer and lead of the DAAC Engineering and Development Group.

Wayne Miller – Wayne received a STAR Award for his effective leadership skills in working with the Branches and Program Managers at EROS in providing authoritative solutions to equipment procurements and computer operations problems.

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Our Cup Runneth Over

EROS Staff Rack Up 11,695 points to Finish 1st in '97 Corporate Cup Competition

EROS staff competed in a wide variety of individual, team, and light-hearted sporting events to capture first place during the 1997 Sioux Falls Corporate Cup competition, September 9, 1997. Sponsored by McKennan Hospital and the YMCA, the Corporate Cup events were held at or near the YMCA in downtown Sioux Falls to promote a healthy work environment, corporate pride, and employee goodwill and camaraderie. The EROS Data Center Activities Association (EDCAA) sponsored the event again this year.

According to **Carla Lynn**, EROS Health Activities Specialist, who served as EROS' on-site Corporate Cup coordinator, the 1997 competition featured businesses in four divisions. EROS employees competed in Division III along with other businesses with 151-500 employees. EROS competitors paid an entry fee of \$1 to help off-set the \$295 organization registration fee. The only other cost for participants involved a voluntary \$7 fee for a specially-designed teal and white EROS Corporate Cup T-shirt. EROS Corporate Cuppers also pinned yellow ribbons on their T-shirts in memory of John Hunhoff (see front cover story).

The afternoon of September 4, prior to the volleyball competition that evening, Lynn, assisted by Cheerleader Jay Feuquay (complete with skirt) fired up EROS Corporate Cup combatants during a pep rally in the EROS auditorium. The pep rally helped to inspire one of three EROS volleyball teams to a 1st Place finish.

While the volleyball competition took place Thursday, September 4 at the YMCA, the bulk of the competition was held September 9. In addition to events held in downtown Sioux Falls, **Judy Austad**, Data Services Branch, and **Connie Haugen**, VESCO Office, scheduled two organized walks on the EROS grounds. While events such as the pep rally and volleyball competition were memorable, the highlight for many strong-armed EROS employees was

taking aim at the CEO dunk tank bulls eye attached to a plank holding EDC Assistant Center Chief for Operations, **Jim Sturdevant**. EROS staff dunked Sturdevant 28 times for a total of 580 points. Sturdevant also finished first overall in the CEO Challenge, good for another 250 points.

After finishing in 2nd Place in the overall point standings last year, EROS staff accumulated 11,695 points this year to finish 1st. Great job everyone! The following summary recaps how EROS staff captured the '97 Corporate Cup

1997 Corporate Cup Event: Result/Total Points:

Volunteer Program (10 allowed)
10 volunteers = 900 points

Basketball Shootout (3 teams allowed)
1st - Ron Kanengeiter
2nd - Deb Anderson
3rd - Carla Lynn
4th - Glenn Nordmeyer
Total Points = 945

6-on-6 Co-ed Volleyball (3 teams allowed)
1st - Michelle Anthony, Carla Lynn,
Rick Wiese, Mike Steuck, Limin
Yang, Kelly Feistner
Total Points = 225

Aerobics (53 participants) - 100 points
Obstacle Course (2 teams)
Did not place = 50 participation points
Individual 5K Run (27 runners)
Men 1st - Tim Burnison - Time: 17:47
Women 2nd - Jenny Schmidtbauer -
Time: 21:47
Women 3rd - Cindy Fuhs - Time:
21:49
Total Points = 4,425

1.5K Walk (185 walkers) - 500 points

T-Shirt Swim Relay (3 teams allowed)
1st - Karla Smith, Sharon Cuhel,
Chuck Wivell, John Dwyer
2nd - K.C. Wehde, Jo Wahle, Barry
Olson, Tim Ratliff
Total points = 325

500 Yard Swim Relay (2 teams allowed)
2nd Overall
1st in closest to predicted time:
Dave Carneggie, Jenn Willems, John
Dwyer, Sharon Cuhel
Total Points = 300

Participation Swim (36 participants)
Total Points = 100

5-Mile Bike Trek (56 bikers)
Total Points = 100

Tug-of-War
1st - Kim Allington, Dick Cole,
Debora Hames, Ron Hayes, Jo
Wahle, Wayne Dullerude, Robin
Koopman, and Todd Wiebenga.
4th - Carla Lynn, Pat Schmidt,
Sharon Cuhel, Mike Madigan,
Aljean Klaassen, Brian
Wardlow, Greg Folsom, and
Michelle Anthony.
Total Points = 200

Shuttle Race
2nd - Lisa Lambert, Kris Machmiller,
Tim Baltzer, Mike
Rechtenbaugh, and Connie
Haugen.
3rd - Lisa Johnson, Julia Towns,
Arlen Hansen, and Mike Steuck.
4th - Carla Lynn, Jenn Willems, Steve
Small, and Darin Kremppes.
Total Points = 225

Putt for Points
30 staff members allowed to putt/58
putts made = 1,480 points

Toilet Paper Toss
30 staff members allowed to toss/24
tosses made = 990 points

CEO Challenge
1st Overall - Jim Sturdevant
Total Points = 250

1997 Corporate Cup Division III Final Standings

- 1st Place** - EROS Data Center
11,695 points
2nd Place - Midland National Life
Insurance Company
10,350 points
3rd Place - Sencore - 8,580 points

EROS Continues Banquet Community Service Tradition

EROS volunteers continued a tradition established in February of 1991 by preparing and serving a full meal the evening of October 2, 1997 at the Banquet. The Banquet is a non-profit, volunteer organization that feeds nutritious meals to 400-450 hungry and less fortunate people in the Sioux Falls area each day.

Once again, **Brenda Jones**, Data Services Branch, volunteered to coordinate and plan EROS' casserole and pie supper for Banquet guests. In addition to Brenda,

nearly 100 other EROS employees volunteered their time and resources to prepare, transport, serve, and cleanup following the meal. EROS staff again pitched in to chop, cut, and dice vegetables, meat, and tortillas at EROS the day of the meal. Other volunteers loaded the food in vehicles to be transported to the Banquet's downtown Sioux Falls location. Employees also helped out by baking pies for dessert and serving and cleaning up during and after supper. Finally, many employees participated in

two Banquet Buck Days this past summer, where employees paid \$1 to wear blue jeans for the day. Banquet Buck Day organizers collected over \$800 in donations to pay for the food needed to feed 400-450 people.

Thanks to all EROS employees who volunteered once again to relieve the hunger of hundreds of people in our community through the ministry of the Banquet. The EROS community spirit continues.

Menu: Chicken Enchilada Casserole, Lettuce Salad, Bread & Butter, Apple Pie Ala Mode. ☺

A Toast to the EROS Toastmasters Club

Talk about Impressive! In only its first year of existence, the EROS Toastmasters Club has been recognized by Toastmasters International as a "Select Distinguished Club" for the 1996-97 year, which ended June 30. Each year Toastmasters International features a competition between Toastmasters clubs worldwide. Called the "Distinguished Club Program," this competition awards points to clubs for meeting various educational and leadership goals and guidelines. The total amount of points awarded to each club indicates the overall health of the or-

ganization. While there are several recognition levels, one of the highest levels is "Select Distinguished."

By achieving the status of a "Select Distinguished Club," the EROS Toastmasters Club has helped Area 7, which includes Sioux Falls, be recognized as a "Select Distinguished Area." In turn, Area 7's recognition has helped District 41, which includes South Dakota, achieve "Select Distinguished" status and finish as the number one district in the United States and the third ranked district in the

world! These achievements are truly remarkable because 1996-97 was the EROS Toastmasters Club's first year as a chartered club and District 41 is the smallest Toastmasters district in the world. Here's to you EROS Toastmaster Club Members:

Deb Anderson, Sue Bredlow, Kris Ferk, Stephen Howard, Lisa Johnson, Patricia Johnson, Ronald Johnson, Aljean Klaassen, Barb Larson, Dana Larsen, Barb Lethcoe, Kris Machmiller, Jon Merchant, Roxanne Merchant, Luann Pfeifle, Jolene Selberg, Tim Smith, Julia Towns, Bob Van Den Oever, Paulette Wahl, K.C. Wehde, Susan Wenzel, Bruce Worstell, and Bruce Wylie. ☺

Now You've Dunn It!

What's orange, tougher than nails, 273 pounds, and makes a great yard ornament? According to VESCO's Pat Dunn, it's called an Atlantic Dell Giant Pumpkin. Dunn experimented with growing this pumpkin variety last winter. After transplanting the seeds last spring in a very fertile former cattle feedlot, Dunn harvested 14 Atlantic Dell Giants -- 10 weighing over 100 pounds. Come harvest time, Dunn gave all of his enormous crop to friends and their children, the largest going to fellow VESCO employee Brad Maschino for display at his wife's home

day care operation. "Once the kids picked the pumpkins they liked, I told my friends it was their responsibility to take them home," said Dunn with a laugh.

4th Place by 2 Pounds

Dunn entered his largest pumpkin in the Giant Pumpkin Consortium held at the Sioux Falls Farmers Market October 4, 1997. Sponsored by the South Dakota Ag Extension Service, this event was one of 22 official weigh-in sights throughout the United States and Canada. While Dunn's pumpkin was pretty plump, a pumpkin transported from 50 miles north of Watertown took the title. It weighed 422 pounds. Dunn's pumpkin placed fourth after one weighing 271 pounds took Third Place. Incidentally, the largest yard

ornament grown in the United States this year came from northern California. It weighed an unbelievable 968 pounds! ☺



Brad Maschino (left) and "Pumpkin Pat" Dunn (right) pose with the 273-pound Atlantic Dell Giant pumpkin Dunn grew during the 1997 growing season.

*Heart Attack
Continued from page 4*

tornado or medical emergency. It will be included in every employee handbook and presented as mandatory training for all employees. Annual safety training is the law. It is also important to EDC for a number of reasons, including reduction in medical costs and keeping EDC a safe place to work. The Occupant Emergency Plan has been drafted. Expect to see it soon! The safety committee is working hard to get other training programs written as well. Many of these programs will be mandatory for all employees, while others will be specific to certain areas at EDC. Some examples of programs we will have in place are Hazard Communication, Forklift training, and Confined Space training and Ergonomics. Many of these programs can

be expected to change as OSHA (Occupational Safety and Health Administration) rules change.

According to Nelson, "Safety at EDC is the concern of everyone. Sixty percent of all accidents occur away from the worksite and it is my wish that employees will take the information from their training away from EDC and use it in the home environment." The key issue for Nelson is, "Safety works when both sides work together to fix a problem or resolve an issue. It is crucial that the staff at EDC understand that safety at EDC is #1. Not every issue can be resolved completely. The safety committee is working hard to do the best it can. It is critical for everyone that EDC keep a safe working environment and that staff and management work together to provide this." ☺

*Hail Damage
Continued from page 5*

Satellite Antennas

Satellite data reception antennas collected hail stones like cocoa puffs in a cereal bowl. While the AVHRR reception antenna atop the roof remained operational following the storm, the curvature of the dish featured hundreds, if not thousands, of high-impact dings. A commercial satellite television reception antenna made of wire mesh suffered the most damage on the roof. Not only did the 8-foot diameter dish not function after the storm, a large hail stone ripped a hole through one of its panels. And, when the Landsat 7 antenna installed June 6 northeast of the building was inspected for damage, technicians counted approximately 2,000 indentions caused by hail stones.

Solar Panels

The large ice balls falling from the sky literally wiped out the Center's solar panel array behind the building. Hail stones broke the glass of each of the 512 solar panels once used to heat 60% of the hot water needs of the Photo Lab.

Vegetation

While the roof of the building and solar panels absorbed much of the damage, even the trees and grass took a shellacking. Leaves and small branches littered the driveway, parking lots, and grounds. Close inspection of the grass around the building revealed pock marks ranging in size from golf balls to softballs. The enormous chunks of falling ice stripped nearby corn and bean fields leaving bare soil littered with mini craters.

Vehicles

All government vehicles parked at EROS during the storm received major damage, including the 1989 Dodge Caravan, the 1990 and 1993 Ford Aerostars, and the 1995 Chevy Corsica. In addition to motor pool vehicles, several EROS service vehicles were severely pummeled. Following the storm vehicles were left with shattered or no glass, dents the size of softballs, broken mirrors, and an inch of water inside.



Above: Jay Feuquay receives an uplifting experience courtesy of McKennan Hospital's Care Flight

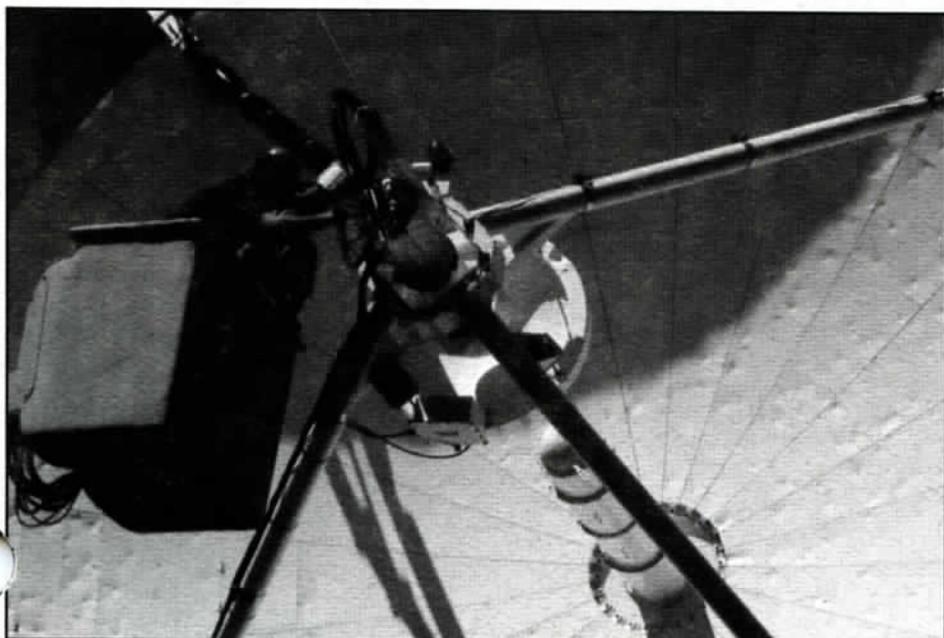
Below: EDC safety drill participants transport the victim



Mike Benson, Rob Campbell, and Jerry Pape happened to be three EROS employees working at the Center when the storm hit. Their cars didn't fare any better than the EROS vehicles. "When I first went out there and saw the car," said Benson, "I thought this can't be all bad, I can drive this home. I was just devastated, there was no way you could drive it. There was glass everywhere. There was water damage. Well, it was just a mess."



Softball-sized pock marks clearly show the impact the hail storm had on the new Landsat 7 antenna installed in June 1997.



An unidentified engineer inspects damage sustained by the new Landsat 7 antenna.

Employee Aid

While damage to EROS and employee property totaled about 2 million dollars, it could have been worse. Many EROS employees came to the aid of the Center during and after the dangerous hail storm to prevent further damage. Security officers on duty responded quickly to the damage caused by the severe storm by contacting management and other appropriate staff. Maintenance employees came from family outings in Sioux Falls and as far away as northwest Iowa to assess the damage and close openings caused by the hail. The custodial staff arrived on the scene promptly to clean up water, glass, and other debris deposited by high winds, hail, and rain. Several Hughes STX and Government staff also interrupted their weekend to help assess damage and shoot video to send to USGS headquarters in Reston.

After the storm struck EROS, it continued to move northeast into Pipestone, Moody, and Rock counties producing large hail, which lacerated livestock and turned the ground white.

While EROS staff worked diligently in the weeks following the storm to assess damaged property and begin to replace it, another major hail storm struck the USGS Northern Prairie Wildlife Research Center (NPWRC) in Jamestown, ND, August 30-31. While

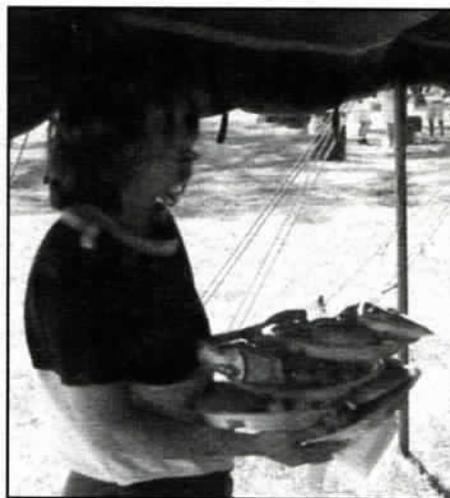
hail stones that pummeled EROS property measured 3 to 3.5 inches in diameter, hail measuring 4.5 inches rocked the NPWRC penetrating roofs, striking people inside, and damaging vehicles. In addition to the hail, 4.5 inches of rain fell in Jamestown, flooding homes and streets. The city's sewer system collapsed, sending sewer water directly into homes through floor drains.

Without the dedicated efforts of all contract and Government employees that responded to EROS' storm emergency, the damage could have been worse. Just ask USGS employees in Jamestown. ☺

EDCAA Picnic



By the look on Jay "the Balloon Sculptor" Feuquay's face, he can't find the young medieval youth who requested the weapon he just molded.



Rhonda Newman returns to a table to nibble on a few snacks before her main course.

*Employee News
Continued from page 7*

Darla Werner – Darla received a STAR Award for demonstrating effective leadership skills in working with EROS Program Managers and NASA Mission to Planet Earth personnel to develop and implement a Landsat 7 reception and ground processing system in support of a satellite launch in 1998.

Stuart Doescher – Stu received a STAR Award for demonstrating effective leadership skills working with all the Branches and Program Managers at EROS by providing authoritative staff support in the management of the Center's System Design, Development and Maintenance Program. He also provided excellent staff support in the Re-Dorran development and NLAPS implementation activities.

David Hair – Dave received a STAR Award for demonstrating effective leadership skills working with EROS Program Managers and NMD Headquarters personnel to coordinate the development and implementation of Digital Line Graph Framework technologies Division-wide.

David Ochsner – Dave received a STAR Award for excelling in his performance as Team Leader for the Budget and Finance Team, Program, Budget and Administration Office. He has met tight deadlines, resolved very difficult financial problems, while simultaneously managing his team.

William Acevedo – William received a STAR Award for providing technical leadership for two major projects: the concept and design of a seamless topographic data set for the Mojave Desert ecosystem and the Urban Dynamics Initiative involving the Baltimore-Washington corridor.

Arlys Johnson – Arlys received a STAR Award for demonstrating exemplary service in her duties as senior government Secretary and Team Leader for the Program, Budget, and Administration Office Secretarial staff.

Gail Hanson – Gail received a STAR Award for continued excellence in performing her duties as Administrative Services Specialist within the Program,

Budget, and Administration Office. Gail has handled a heavy workload processing promotions, awards, training activities, and providing staff support in the development of an Alternative Work Schedule for EROS.

James Sturdevant – Jim received a STAR Award for many challenging tasks associated with managing the onsite technical support contract and for making difficult staff allocation decisions.

Wayne Boncyk – Wayne accepted a position at the Jet Propulsion Lab, Pasadena, CA.

HSTX

Jeff Hauck – Jeff joins the Systems Engineering and Management technical area of the Computer and Communications Systems department as an Electronic Engineer in the micro-computer support area.

Sean Weems – Sean joins the Alaska Field Office as a Digital Data Production Analyst to capture digital data, verify it, and provide GIS process control.

Dave Hartzell – The Computer Services Branch welcomes Dave as an electronic engineer, where he performs network engineering tasks.

Jeff Erickson – Jeff joins the Finance Team within the Center Services Department of the Program, Budget, and Administration Branch to work as an Information Systems Specialist.

Bryan Polyak – Bryan comes to EROS to work as a senior programmer/analyst for the Landsat 7 Data Handling Facility.

Paul Thorson – Paul joins the Satellite Systems Engineering and Development staff as a senior systems engineer. He is assigned to the Landsat 7 Image Assessment System (IAS) Development project to perform IAS integration and testing.

Tom Albright – The Science and Applications Branch welcomes Tom to its International Projects program to work on USAID land use/land cover analysis of the Sahel region of Africa. ☺

Binnie and Son Travel to Capitol to Display Christmas Ornament

Doug Binnie and his son, Colin, traveled to Washington, D.C. December 8-9, 1997 to participate in the lighting of America's Holiday Tree on the Capitol lawn. The trip came about when Colin, a Boy Scout from Dell Rapids, created a Christmas ornament that was chosen from hundreds of other Boy Scout entries across the state as most representative of South Dakota. Doug and Colin returned to Dell Rapids and EROS after helping to decorate America's Holiday Tree – a Ponderosa Pine, which came from national forest land in South Dakota's Spearfish Canyon. ☺



Colin Binnie holds the Christmas ornament he designed for America's Holiday Tree in Washington, D.C.

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