Newsletter for the Employees of the Ames Laboratory • Volume 2 Number 4• April 1991

AMES LAB INSIDER

Working from dusk to dawn, these Ames Lab graduate students find nighttime a busy time. (Page 4)

Catalyst for Change

Helping managers anticipate and ward off potential problems, Fran Dunshee, Ames Lab internal auditor, sees her position as a catalyst for change. Performing compliance, economy and efficiency audits, Dunshee serves the Lab as an internal consultant, helping various areas make sure their controls are adequate and effective.

Dunshee says diversity is one facet of her job that she values most. "The objectives of an audit change from time to time depending upon the type of audit being performed," she notes. "There is a great deal of difference between doing an inventory audit and an audit concerning compliance with DOE regulations." Dunshee regularly performs audits involving the safeguarding of assets, reliability and integrity of information, compliance with DOE regulations and accomplishment of objectives.

"Each system or set-up is different," says Dunshee. "Working with and getting to know the people involved is critical to becoming familiar with the system they are using," she explains. "A large part of my job is communication. If I haven't worked in a specific area before, I must rely on the people to describe their system and how it's working or not working for them."

Dunshee appreciates the opportunity to work with different people, and feels this is the most enjoyable aspect of her job. A visit from the auditor can elicit different types of reactions. "Sometimes people don't know what to expect and may be somewhat defensive; usually this is from a fear of criticism or the unknown," states Dunshee. "It's my job to make them feel more at ease and let them know that I'm there to help them. ...We're all working for the same organization."

Dunshee likes the mental challenge her job offers. "Since I don't work in one specific area all the time, I must find ways to apply basic auditing techniques to each new system encountered," she says. Dunshee finds she does a lot of reading to keep current on auditing methods and DOE regulations.

Putting in the time does leave Dunshee with certain rewards. "A sense of accomplishment ...verifying that things are operating as they should be, or that changes are being made; these are appealing and satisfying outcomes to a successful audit," she smiles.

Being an auditor is not without its interesting and memorable moments. During the ten years she worked in ISU's internal auditing office, Dunshee had the opportunity to do some livestock inventories. You do a livestock inventory much like any other inventory. You get out and count them! "It's difficult to do when they're all roaming around and look the same," laughs Dunshee. "I moved on when they started coming at me!"

Dunshee has also done inventories of grain in a grain elevator. Although her inventories utilized an estimation method, Dunshee says a grain inventory can be a very complex procedure which must take into account such things as the pack factor, moisture content and the angle of the grain coming into the facility.

Dunshee enjoys diversity in her life outside the Lab as well. She takes part in swimming and volleyball and usually walks over her lunch hours. She likes to cook, read mysteries and spend a lot of time with her husband and ten-year-old daughter. Yes, she does do tax returns, but only for family members. "I don't like doing them," claims Dunshee. "You just don't cozy up with a good tax return when you come home from work!"

Joining the Ames Lab staff in the fall of 1989, Dunshee says she considered being a scientist at one time. She finds it quite a coincidence that she ended up working at the Lab. "I feel privileged to work here where there is so much mental energy going on," she concludes. ❑

Ames Lab's internal auditor, Fran Dunshee, works with a variety of people and auditing systems.

DOE Inspector General Auditors Visit Ames Lab

Visiting Ames Lab to perform a financial audit, these DOE Inspector General Auditors get a bonus tour of the Materials Preparation Center (MPC) from Larry Jones (far left) and Rick Schmidt (far right). DOE auditors are left to right: Lindell Williams, Vervely Jordan, Philip Beckett, and Phillip Holbrook.

They've Got a Good Thing Going

Inducted into ISU's 25-Year Club at a banquet held on February 25, five Ames Lab employees were among those recognized for their years of service to the University.

Shirley Bowman, Ray Gress, Fran Laabs, Bennie Lewis and Howard Peterson all agree that Iowa State is a pretty good place to work, emphasizing that the employee benefits just can't be beat.

After 25 years with an organization, the workplace sometimes begins to feel like a second home. "You learn to take each day as it comes," says Peterson.

Twenty-five years may seem like a long time to some, but Fran Laabs looks at it in a different way, commenting, "Working around students is the best way to stay young."

Sponsored by ISU and the ISU Alumni Association, the 25-Year Club currently has over 1200 members representing employees from every department on campus. ❑

The 25-Year Club, front row: Bennie Lewis, Ray Gress and Fran Laabs. Back row: Howard Peterson and Shirley Bowman.

The Beat of the Rhythm of the Night...

is fast-paced and unrelenting for some Ames Lab graduate students who turn their nights into workdays. Striving toward PhDs in analytical chemistry, these hardy individuals from Ed Yeung's group find putting in the necessary time requires drive and dedication.

Tucked away in the basement of the Link, King Chan, Tom Garner, Art Grunke, Lance Koutny, Dave McGregor and Xiaobing Xi do late night research, arriving at their lab between 4:00 and 7:00 in the evening and leaving somewhere between 4:00 and 7:00 in the morning.

Turning their nights and days around is commonplace for these graduate students who say working at night is quieter and provides easier access to equipment. McGregor says he can get two or three experiment runs in by working at night. "My experiments require quiet and no vibrations, so it's better to work at night," he explains. Underscoring the desire to access equipment during less busy hours, Chan laughs, recalling one particular early morning when there was still a waiting line for computers at 4:00 a.m. Grunke notes another benefit of working at night is not having to worry about parking. Working at night can sometimes be more exciting according to McGregor. "Our group patrols the ground floor of Gilman," he kids. "We've reported one flood and one fire."

Just starting his day, King Chan arrives at his lab at 4:00 p.m.

"I believe our group is unique in terms of the very late hours worked," says Chan. "There is usually someone in our lab around the clock." Xi explains that a lot of lab time is spent preparing experiments. Many hours, days and sometimes weeks are devoted to building the instrumentation required for individual experiments. This turns out to be an invaluable learning experience for many graduate students but, unfortunately, not a facet of research that can be emphasized in published work.

Preferring to do their research at night, these grad students are seldom at the Lab during the day. "I come in if I need to go to stores, talk to the boss or attend a group meeting," notes Grunke. McGregor says he usually tries to make it in by 1:00 or 2:00 in the afternoon. Xi, having put in his time, just smiles. By the time this story

Dave McGregor injects chromosomal DNA fragments into a pulsed field gel apparatus.

King Chan prepares electrophoresis gels for imaging with a charge coupled device (CCD) camera.

appears, he will be in Cincinnati working for Procter and Gamble.

The late night schedule is a regular one for these students. Most work six out of seven nights a week. Do they ever goof off? Grunke echoes the sentiments of all, "If I come to the Lab, I'm going to work. If I want to goof off, I'll stay at home or go out with some friends."

Goofing off times are infrequent for this industrious night shift. McGregor allows himself Saturday nights away from research and likes to attend ISU hockey games on his weekly night off. "Other than that, the only time I take away from work is to eat evening meals with my girlfriend," he says.

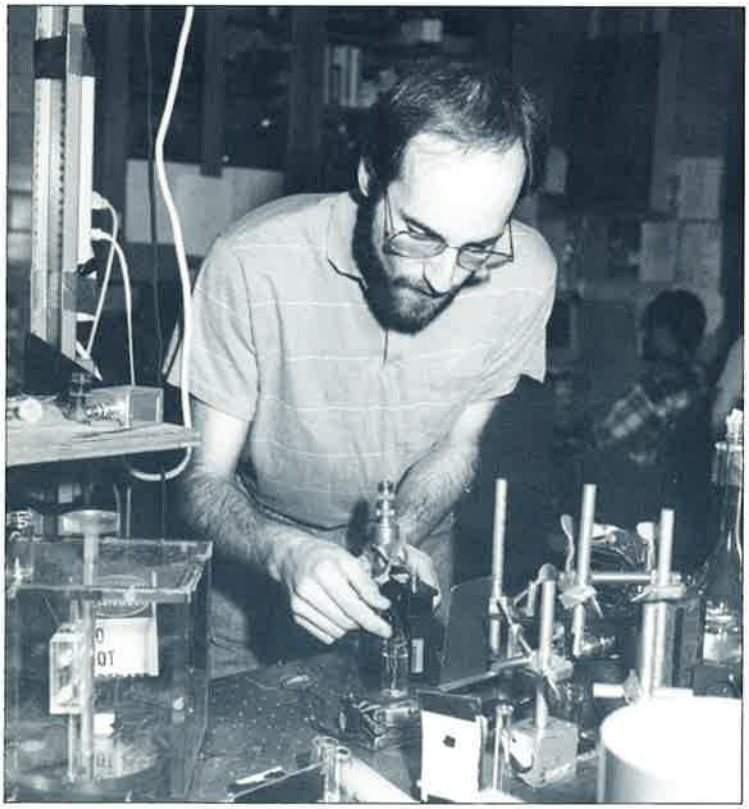
McGregor usually spends 60 to 70 hours a week working in his lab. Chan's only time away from research is when he visits his girlfriend in Iowa City once every three or four weeks. Having no family in Ames, he says, "My only hobby is to work!" Chan is the group's acknowledged leader in long and late night hours. Often working thirteen or fourteen hours a day, he usually puts in a seven-day, 90-hour workweek.

Asked if they thought their diet and general health suffer from the rigorous schedules they keep, Grunke says he still sleeps seven or eight hours daily; it just happens to be during the daytime. He feels he is more efficient at night and jokingly points out that he probably wouldn't exercise or eat properly even if he worked days and slept nights like most people. Chan admits he still has not adjusted to the work by night, sleep by day routine. He says he is always tired and on rare occasions may take a twenty-minute nap in the lab, sleeping in his chair. "I get tired very, very easily," he grins. McGregor has the definitive comment on schedule, diet and health, "There's just not enough time to get sick!"

Do they like this kind of life? Chan answers for all, "It doesn't matter if we like it or not; we have to do it to reach the end result." Grunke resignedly adds, "You just get used to it."

All members of the late night group are highly self-motivated, knowing they will need to be when they get a job. And so the long and late night hours pile up, one upon the other, night after night ...hours of success and hours of frustration. Every one contributing in its own way to the learning process as each student continues keeping time...

to the beat
of the rhythm
of the night.



Art Grunke adjusts High Voltage leads to a gel-filled capillary electrophoresis system.

Tom Garner aligns collection optics for a fluorescence detector for capillary zone electrophoresis (CZE).

UPCOMING AMES LAB TOURS

Monday, April 8 - Approximately 55 Gilbert Junior High School students will visit the Lab. Obviously impressed with the science they see, Holly Lester and her eighth grade math classes have made spring field trips to the Lab for the past several years.

Monday, April 29 - Ames Lab will host 30 high school students from Keokuk, Iowa. Known as the Jets, this group of academically advanced students specifically requested a tour of Ames Lab as part of their visit to the ISU campus.

Joel Calhoun, program assistant in the Rare-earth Information Center, has been on active duty in the Persian Gulf since January 17. In a fax message on March 24 addressed to Gschneidner's group, Calhoun reported that he was now in Thailand and "steaming back via the Philippines and Hong Kong to eventually debark in Guam." Calhoun states his request for release is on hold, but he hopes to be back to work by June. Concluding his message, Calhoun writes with enthusiasm, "Hope all is well back home as I can't wait to see Iowa (USA)!"

REMINDER:

Secretaries Week - April 22-26

Ken Van Pelt from the Ames Lab Management Data Systems department is the Lab's new Computer Protection Program Manager (CPPM) effective March 22, 1991, replacing Frank Carlsen who recently retired. Van Pelt will also serve on the Computer Advisory Committee.

The Kodak photocopiers in 209 Spedding have color capabilities. Red, blue, green and brown can be run, one color at a time. Color copying will be done approximately once a week, depending upon the need and demand. Please see Donna Millang in 201 Spedding, 4-1856, to schedule your color copies.

VEISHEA DISPLAY

Ames Lab's Veishea display will be in the third floor Spedding Hall Conference room on Friday, May 3 from 9 to 5 and on Saturday, May 4 from 12 to 2. Employees and the public are invited to see a sampling of Ames Lab's work.

Karl A. Gschneidner, Jr., Ames Lab senior metallurgist and ISU distinguished professor in Liberal Arts and Sciences, will present the Retiring President's address for the ISU Chapter of Sigma Xi. The address is entitled "All You Wanted to Know about the Fabulous Fraternal Fifteen—the Rare Earth Elements—and Then Some." The talk is scheduled for 8:00 p.m. on Thursday, April 25 at the Scheman Continuing Education Building and is open to the public.

COMPUTER SECURITY

This concludes the computer security awareness series. In summary, a few important points will be reviewed.

Do not disclose your password to anybody, or allow anyone to observe your password. Avoid selecting a password with any personal identification or association, or one that is simple or short. Remember that once the user is logged on, the computer will attribute all activity to that user id. Therefore, never leave your terminal, even for a few minutes, without logging off.

Make regular backup copies of the data. Complete system backups should be taken at intervals determined by how quickly information changes or by the volume of transactions. Backups should be stored in another location to guard against the possibility of destroying the original and backup copies by the same fire or other disaster.

Be aware of viruses. Ames Lab has been infected by computer viruses acquired through seemingly useful or innocent software obtained from public access bulletin boards or other sources. The installation of unauthorized hardware can cause damage, invalidate warranties or have other negative consequences. Install only hardware or software acquired through normal acquisition procedures and comply with all software licensing agreement requirements. Be aware that even software procured normally can contain a virus.

Lock up or remove sensitive reports and computer media containing sensitive data when the user leaves the work area. Information carelessly left on desks or in unlocked storage can be casually observed or deliberately stolen. Every employee who works with sensitive information should have a locked space available for storage when information is not in use. If one is not available in your area, ask your supervisor or assistant protection manager.

Computers have changed the way we handle our information resources. Large amounts of data can be stored in one central place and be accessed from remote locations. **Ultimately, computer security is the responsibility of the user.** You, the user, must be alert to possible breaches in security and should adhere to the security regulations established within the Ames Laboratory.

PROTECT FILES!

PROTECT EQUIPMENT!

PROTECT PASSWORDS!

REPORT VIOLATIONS!

NEW EMPLOYEES

Syed Akhtar,
Postdoctoral Fellow
(Colin Chriswell)

Angela Bassett,
Research Helper
(Colin Chriswell)

Suna Bayrakal,
Graduate Assistant
(Martin Edelson)

Daniel Branagan,
Graduate Assistant
(Bill McCallum)

Robert Carlson,
Research Helper
(Bill Buttermore)

Kevin Carney,
Research Helper
(Michael Tringides)

Hai-Chou Chang,
Graduate Assistant
(Jerry Small)

Wen-Jang Chen,
Student Associate
(Jim Espenson)

Jun Cheng,
Graduate Assistant
(Nenad Kostic)

David Edsall,
Graduate Assistant
(Eli Rosenberg)

Angelia Graves,
Research Helper
(Lowell Mathison)

Troy Groth,
Research Helper
(Joe Gray)

Yanghyong Kim Han,
Graduate Assistant
(R. Bruce Thompson)

Connie Hargrave,
Recruiting Assistant
(R. Bruce Thompson)

Robert Hentzel,
Research Helper
(Joseph Shinar)

James Hochstetler,
Research Helper
(Robert Lohnes)

Joseph Isaac,
Graduate Assistant
(Tom Wheelock)

Marilyn Kniss,
Clerk Typist III
(Robert McCarley)

Brian Lamp,
Student Associate
(Marc Porter)

Song Lin,
Student Associate
(David Johnston)

Allan Morrish,
Visiting Scientist
(Bruce Harmon)

John Nedderson,
Graduate Assistant
(Nenad Kostic)

Nareshkumar Pallegar,
Student Associate
(Art D'Silva)

Angela Petsche,
Typist Clerk
(Rose Bielefeldt)

Margaret Pollock,
Clerk Typist III
(Karen Phillips)

Michael Purdy,
Science Writer
(Pattye Volz)

S. N. Rajesh,
Graduate Assistant
(Donald Thompson)

Steven Rhoades,
Research Helper
(Michael Tringides)

Keith Roberts,
Research Helper
(Tom Wheelock)

Michael Sanger,
Student Associate
(Robert Angelici)

Chao Shang,
Postdoctoral Fellow
(Michael Thompson)

Wayne Syvinski,
Student Associate
(Robert McCarley)

Timothy Werner,
Research Helper
(Lowell Mathison)

Matthew Whitmire,
Office Helper
(Gene Pedersen)

Sergei Zaitsev,
Visiting Scientist
(Robert Uphaus)

A Computer Veteran Retires

Twenty-eight years ago Ames Lab hired Frank Carlsen to program and operate ISU's first modern (transistorized) computer. "At that time, neither the University nor the Lab had a computer center, and they shared equipment," Carlsen says. "This arrangement continued until 14 years ago when the Lab obtained its own computer and developed a computer center separate from the University's."

Carlsen made several trips to Chicago to test and program ISU's new IBM 7074 computer. After the computer's installation, he taught programming to several group leaders and graduate students.

In those days, programming classes were not a part of the curriculum, Carlsen says. The only computers available were in the military, a few universities and a couple of large research labs.

With a B.S. degree in physics from Arizona State University, how did Carlsen happen to get into the computer field? "It was a stroke of luck," Carlsen smiles. "Classified as a physicist by education, I was assigned to the Air Force Special Weapons Center when I went into active duty in 1958. There I learned programming and how to operate computers."

Carlsen completed one of his most satisfying projects in 1969 when he converted the Lab's general ledger to run on

Frank Carlsen

ISU's new computer. He devised and programmed the new system with a colleague, Charles Sage. The accounting system they designed was in effect until three years ago when Carlsen helped select the Lab's newest accounting package.

Conducting the search for the Lab's first administrative computer was a highlight of Carlsen's career. "That first Hewlett-Packard computer we purchased in 1978 was about twice the size of the current computer and had about one-tenth the capability," Carlsen explains. "The old disk drives used to be about the size of a washing machine and now they're the size of a desk drawer. This personal computer sitting on my desk has as much capability as the big computer I was using in the Air Force that took up twice the space of this office."

Carlsen thinks the real computer explosion is just beginning. The first 20 years will look like nothing compared to what is going to happen in the next 10-20 years, he says. "Networking is just in its infancy. And programming, as we know it, is going to disappear, which takes all the fun out of it for me. One reason I'm taking early retirement is that the computer field is getting so big it's impossible to keep up with it."

"It has been exciting to have a career in an area that has had such growth," Carlsen adds. "I have had many opportunities and new things to learn. It was always interesting. Many people think this field is magic, but it isn't. It's probably one of the most logical disciplines there is."

Since he began, Carlsen and the computer operations group have moved seven times. He reports moving was easy in those days because there were no interactive computers. The Computer Garage, the group's home for the past 14 years, was previously a real garage, complete with cars and trucks. The large garage doors were on the south side of the building. When ISU built the Physics addition, there was no longer access to the garage and it had to close.

Carlsen retired on March 21. He was the program manager of Management Operations Systems.

Carlsen's retirement plans are very indefinite, but he says his wife has a long list of projects for him. He may do some woodworking and may even get back into golf. With no current hobbies, Carlsen says "this should be a very interesting retirement." ❑

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Volume 2/Number 4/April 1991

Ames Lab Insider is published 12 times a year for the employees of the Ames Laboratory by the Office of Information. Ames Laboratory is operated by Iowa State University (ISU) for the U.S. Department of Energy under Contract W-7405-Eng-82, and is part of the Institute for Physical Research and Technology consortium of fundamental and applied research centers.

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P-208-9