

Institute's New President

Today is July first (hopefully) and Dr. Laurence H. Lattman's first day as president of the Institute.

Dr. Lattman comes to us from the University of Utah where he was dean of the College of Mining and Mineral Industries and a professor of geophysics and geology for the past eight years. In 1978 he was appointed to serve as dean of the College of Engineering as well.

His research interests, which parallel many areas of investigation here at Tech, span of geology, energy, and minerals-related projects. His work involved remote sensing, geomorphology, flood plain sedimentation, fracture analysis on aerial photographs, and photogeologic techniques in petroleum and mineral exploration.

He is the author of some 30 professional papers and coauthor of two books, *Aerial Photographs in Field Geology*, published in 1965, and *Energy and Law*, now in manuscript. For seven years he served as the associate editor of the *Bulletin of the Geological Society of America*.

Dr. Lattman has won awards for photogrammetry (making maps or scale drawings from aerial photographs) and teaching. He also has lectured widely. He was the William Hottis Lecturer at Stanford University in 1975 and the Henry Krumb Lecturer with the American Institute of Mining, Metallurgical, and Petroleum Engineers--Society of Mining Engineers (AIME-SME) in 1978. Dr. Lattman was named a Distinguished Member of the Society of Mining Engineers of AIME in 1982.

Prior to his work at the University of Utah, Lattman was a professor and head of the Department of Geology at the University of Cincinnati, 1970-1975. He served as a Fulbright professor at the Moscow State University, USSR, in 1975. He also has held teaching posts at Pennsylvania State University and was a photogeologist and head of the photogeology section with Gulf Oil Corporation during the 1950's.

Other activities include the chairmanship of a panel on Geology and Mineral Resources for the Committee on Space Programs and Earth Resources Surveys of the National Academy of Sciences' National Research Council from

1971-1977. During those years, he also chaired the Committee on National Flood Mapping Standards for the National Academy of Sciences-National Academy of Engineering.

Dr. Lattman received the bachelor of chemical engineering degree from the City College of New York in 1948 and the master's and doctoral degrees in geology from the University of Cincinnati in 1951 and 1953. He is a graduate in photogrammetric engineering from the International Training Center for Aerial Survey in Delft, the Netherlands.

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PAY DIRT
BOX GG CAMPUS STATION NEW MEXICO TECH SOCORRO, NM 87801
VOL. 8 NO. 14 Friday, July 1, 1983

Regents Approve Budget

An \$8.2 million budget for the 1983-84 fiscal year was approved by the New Mexico Tech Board of Regents at their last meeting in late May.

The budget contains \$6.57 million approved by the state legislature this year for the College Division of the Institute. The amount is 96 percent of last year's appropriation. Other income sources include tuition, fees, and federal grants.

To work within the "no growth" budget, New Mexico Tech Acting President Charles Holmes explained that "unavoidable increases" such as those for Social Security and health insurance had to be absorbed, and cuts made from departmental budgets.

No salary increases were recommended; \$50,000 was trimmed from the library budget; faculty travel was cut by 71 percent; and a few vacant positions were eliminated, at least temporarily.

"We plan to maintain programs and personnel at present levels, if at all possible," Dr. Holmes stated.

Fuel bills at Tech rose 60 percent last year, but administrators are hoping to

cut costs this year with the new "hot water loop." The loop will provide space heat for a number of older buildings on campus by carrying excess solar-heated water from a complex of solar buildings. By fall, school officials plan to have three dormitories, two office/classroom buildings, and the student union building tied into the loop.

Brook Honored

New Mexico Tech Research and Development Director Marx Brook has been elected a 1983 fellow of the American Geophysical Union (AGU).

An internationally-known researcher in thunderstorms and atmospheric physics, Dr. Brook was selected for the honor because of his "extensive and original contributions to physics" which have "resulted in increased understanding of electrification and severe storm dynamics and their effect in the atmospheric processes."

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Lattman. . .

FROM PAGE 1

(In late April the Dr. Lattman granted the following interview to the Gold Pan Alumni News.)

Gold Pan: You have primarily been associated with large universities. What interested you in the presidency of New Mexico Tech?

Dr. Lattman: I have ideas as to what technical education, science education, and research should be. In a large university, the ability of the school to react to challenges is hampered by the very inertia of size. So many viewpoints are pulling in different directions. Tech, on the other hand, is smaller, and a quick yet careful, response to a new situation is possible. We are facing a "revolution" in science and engineering education, and for that matter, the humanities. Automation, microprocessors, and the silicon wafer are being integrated into our everyday lives. Tech is in a unique position. It is possible for Tech to be in the forefront--leading the way in applications of the new technology in a whole variety of human efforts. This is the part that is challenging to me.

It is part of our responsibility to produce students who are very necessary to industry, who have the skills which industry

finds so desirable. Students with strong computer and technical backgrounds, and with the ability to apply that background to their field of specialty, are very appealing.

GP: Had you heard of New Mexico Tech before?

LL: Oh, yes, I knew of Tech. At the University of Utah, the U.S. Bureau of Mines has established a "Generic" Center for Communication. One of our partners in this center is New Mexico Tech. We were shown the local geology by Dr. Clay Smith. Tech is widely known and accepted as an Institute of higher education and research.

GP: What would you judge to be Tech's strengths and weakness?

LL: I would judge its most widely known strength to be in research. Atmospheric science is very strong. Langmuir Laboratory is very well known, and Tech is acknowledged in the minerals industry. Its student body is known to be excellent. The quality of Tech's faculty is high also, and it will require strong efforts to maintain and encourage such a faculty. As for weaknesses, I really don't know yet. I would say, though, the apparent physical isolation of the Institute may be a problem. The University of Utah suffers somewhat from this problem also. It makes it very important for faculty to get out to meetings and for the Institute to bring in

visiting lecturers. It means you have to work harder for communication.

GP: What do you see as Tech's importance to the state?

LL: New Mexico is a mineral producing state--fifth in the nation, I believe, in overall value of production. Any school whose interests parallel the major resources of the state must play an important role in developing and maintaining those industries. Tech is also in a central position in the Rio Grande Research Corridor development. It is not the same size as the University of New Mexico or New Mexico State University, but Tech will play a significant part in the economic health of the state.

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Brook. . .

FROM PAGE 1

Brook has served as director of both the Research and Development Division and the Geophysical Research Center at New Mexico Tech since 1978. He is also a professor of physics and a senior research physicist. For ten years he was chairman of Tech's physics department. He has been with the Institute since 1954.

An expert on cloud physics and lightning, Dr. Brook is the author of more than 50 papers. He holds patents for a fast scanning weather radar and for a method of removing airborne pollutants from industrial chimneys using an artificially induced cloud.

Most recently Brook has been involved in space shuttle experiments studying the measurements of lightning from space platforms. He also has participated in the NASA program investigating ways to protect space craft from lightning during launch and lift-off and in a cooperative study between Japan and the United States for the study of Hokuriku winter thunderstorms off the coast of the Japan Sea.

The fellowship in the American Geophysical Union was awarded earlier this month at the AGU spring meeting in Baltimore, Maryland. Only one-tenth of one percent of the AGU membership may be selected as a fellow each year. Former Tech Professor of Hydrology Lynn W. Gelhar was also tapped for the honor this year. Dr. Gelhar is now with MIT.



K. Caylor Photo

Is it true that corn (or you know what) is being planted between Eaton and Brown Halls? The yield will either be twenty bushels (or twenty bags)!

Lynch: "Most of the fish are alright."

Elephant Butte Reservoir Polluted

The 10 million tons or so of sediment deposited each year in Elephant Butte Reservoir also carry small but significant amounts of heavy metals, pesticides, and other pollutants into the lake.

A two-year study now being completed by four New Mexico Tech researchers shows that the lake serves as a trap for many pollutants, some of which have appeared in fish. Researchers found that some of the largest, oldest fish in the lake contain excessive levels of mercury.

Their study, funded by the New Mexico Water Resources Research Institute, points to elevated levels of other heavy metals and the presence of at least 18 different pesticide residues in the fish and in bottom sediments, according to Dr. Carl Popp, professor of chemistry at Tech.

Popp said it was not surprising to find that some Elephant Butte fish contained more than one part per million of mercury, the maximum safe level established by the Food and Drug Administration. University of New Mexico researcher David Kidd found similar levels in a 1974 study.

Tech biologist Dr. Tom Lynch said, "Most of the fish are alright." Dr. Lynch, an aquatic toxicologist, added that the small percentage of the fish that showed excessive mercury levels were all older, larger fish, that have been taking up the toxic metal for several years through bioaccumulation.

Bioaccumulation is the process by which living things accumulate chemicals in concentrations higher than are found in the environment. Heavy metals and chlorinated hydrocarbons are insoluble in water, but they combine quite readily with some body chemicals. They can also stick to the surface of tissues. Once inside an organism, they are very difficult to remove. The Elephant Butte fish bioaccumulate tiny amounts of whatever is in the water or in their food supply through this process.

The story starts in the Rio Grande watershed above the lake. Researchers believe that some heavy metals, such as mercury, uranium, lead, and cadmium, may come from mining operations in the Rio Grande watershed above the lake.

Popp stressed, though, that they did not search for specific sources of any contaminants, and that local soils also contain elevated levels of such metals.

Albuquerque is thought to be another major contributor to the pollution. "Hydrocarbons have been found in all kinds of places around Albuquerque," Popp said, but added that chlorinated hydrocarbons -- a class of pesticides that includes such chemicals as DDT and endrin -- seems to come primarily from agricultural runoff.

Most of the chlorinated hydrocarbon pesticides and their breakdown products found were taken off the market long ago because of the environmental problems they can cause. But some, including methoxychlor and lindane, are still available.

According to Lynch, parts-per-billion pesticide levels found in the fish are not thought to be dangerous, but much work remains to be done on long-term effects of trace amounts of such chemicals. "We're all walking around with DDT, PCBs, and so forth in low concentrations in our body fat," he said, "and what that will mean 30 or 40 years down the road we don't know."

But what about the long-term effects on the lake? Most of the heavy metals and all the chlorinated hydrocarbons are insoluble in water. They move down the river after being adsorbed on sediment particles in the murky Rio Grande. Learning about this particular process was one of the motives for the study.

The finest particles had the most surface area for their mass, so they carried the greatest proportion of the contaminants. They also

travel the farthest after arriving at the reservoir. Most of the sand and mud in the turbid river is dropped when the water slows down at the north end of the lake. The finer particles require less energy to carry them, so they travel farther. Most of them, though, never make it out of the reservoir under normal conditions.

Most of the pollution coming into the lake seemed to stay with the sediments. Tech chemist Dr. Donald Brandvold speculated then, that pollutants may be in safe storage beneath the bottom of the lake.

Eventually, though, scientists and resource managers will have to know more about how reservoirs trap pollutants and what happens to trapped chemicals over the years. On a short time scale, a lake is permanent, but on a time scale of a century or two this is not the case. Elephant Butte has lost a fourth of its storage capacity to sedimentation since its creation in 1916, according to a Bureau of Reclamation study. Someday, according to Brandvold, such a lake is bound to become so full of silt that something will have to be done about the problem.

One approach to that problem would be dredging the lake, a costly proposition that would bring the polluted sediments up on land. On the other hand, building a new dam further downstream and demolishing the old one would allow the current to stir up the old sediments in much the same fashion that a long spell of low water does now. In either case, said Brandvold, it will be important to know more than is known today about the potential dangers that may lie beneath the silt and mud.

Dance With

THE BREAKERS

Saturday, July 2, In The Tin Can

9pm - 1am

Admission: Tech ID

No bottles please.

42 Attending NAMES Program

Forty-two Native American high school students are currently participating in a summer science and engineering program which began June 12, here at New Mexico Tech, called the Native American Mineral Engineering and Science program (NAMES).

First year NAMES students this summer are attending classes each day in mathematics, writing, and science, including geology, chemistry, and engineering. Students also attend science laboratories, go on field trips, participate in career seminars, and listen to visiting speakers. Twenty-nine high school sophomores and juniors are participating in this four week course.

Second year participants, consisting of juniors who completed the four week course as sophomores, and seniors who plan to attend New Mexico Tech this fall, are hired as research apprentices for eight weeks. This involves additional coursework in mathematics and communication skills. NAMES director Betsy Yost said 13 students have been hired this summer.

Assistantships, provided to all of the students, cover the cost of room and board, fees, and books. First year students also get small stipends for personal expenses and travel to and from the program.

Funding for the NAMES program is provided through grants from Anaconda/Atlantic Richfield Foundation, Conoco/Consol, Gulf Mineral Resources, International Minerals and Chemicals, Mobil Oil Corp., Rocky Mountain Energy, SOHIO, SUNCO, Superior Oil, Texaco, and Utah International.

Additional support is provided by the Southwest Resource Center for Science and Engineering, a National Science Foundation Program, and by New Mexico Tech.

J.J. Taber Honored

Joseph J. Taber, director of the New Mexico Petroleum Recovery Research Center, has been selected this year to receive the Muskingum College Distinguished Service Award.

Dr. Taber is a researcher, an educator, and the first director of New Mexico's Petroleum Recovery Research Center, a major research division of New Mexico Tech. The Petroleum Recovery Research Center is dedicated to the research and development of new and improved methods for removing oil from older fields.

Dr. Taber, also an adjunct professor of petroleum engineering at New Mexico Tech, has served more than 20 years as an educator in colleges and universities. As a researcher, he has more than 20 professional papers and eight patents to his credit. He is also the originator of the critical displacement ratio or "Taber Number," which is a measurement of the difficulty of recovering oil from rocks.

Taber was one of four alumni honored for distinguished service this June during reunion weekend in New Concord, Ohio. He is a 1942 chemistry graduate from the college. He also holds a doctorate from the University of Pittsburgh. Prior awardees include Senator John Glenn and his wife, Annie.

Dr. Taber came to New Mexico in 1976 to head the state's newly established Petroleum Recovery Research Center. The center now has an annual operating budget of \$1.5 million in federal grants and state and industrial support. Some 35 professionals and 30 students are employed at the center.

Prior to coming to New Mexico Tech, Dr. Taber was a professor and administrative officer with the University of Pittsburgh department of chemistry for 12 years and a senior project chemist with Gulf Research and Development Company for 10 years.

Coal Liquefaction Breakthrough

A breakthrough in the basic understanding of coal liquefaction is taking place at New Mexico Tech.

Polish-born Fulbright Exchange Scholar Janusz Pajak and Tech Chemistry Professor K. R. Brower are in the midst of experiments resulting in "very important discoveries," according to Brower.

Pajak and Brower are studying the mechanism of reaction when coal is liquified by solvents. Chemists have known what solvents work in liquefaction, but they have not been able to explain how the liquefaction occurs.

Chemists and the coal industry have assumed that liquefaction occurs through a free-radical thermolysis of the coal structure at the atomic level. In free-radicalization, a transfer of single hydrogen atoms occurs in succession.

But results from research at New Mexico Tech indicate that a pericyclic mechanism causes the transfer. In a pericyclic mechanism, Pajak explained, "both hydrogen bonds are broken simultaneously."

Brower and Pajak both emphasize that finding the true coal mechanism is an example of research as pure science--they are not interested in the commercial application of the knowledge. But both are convinced that their research could have an indirect benefit in the energy industry.

"When the true mechanism is found, it will help engineers find the best conditions to make the process cheaper," Pajak said.

A few small companies liquify coal for commercial purposes, but liquefaction technology is in need of advancement. Since the world supply of coal is abundant, it could prove to be a viable alternative to oil in the future.

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FROM THE EDITOR

Howdy folks. I am your new editor. This may not seem earth shaking to you, but it means a little bit different kind of Pay Dirt than you have grown accustomed to. I will try to maintain the same high standards the two previous editors have achieved, but I am sure that some differences will show through.

There should be three issues this summer (today, July 14, and July 28). Hopefully this will give me enough practice so that I will not have to lean on Kevin (Caylor, the editor this past year) for so much. I have been associated with Pay Dirt for two years now, and I look forward to this new challenge.

About this issue, there is some very interesting stuff in here. It depends upon who you are as to what you think is interesting, but everyone should be interested in the article/interview about/with Dr. Lattman--he is our new president, after all.

By the bye, the contents of this article were stolen shamelessly from the Gold Pan Alumni News. Since the one time Pay Dirt had the opportunity to talk to Dr. Lattman, he was in a great hurry, and since most people out there probably are not alumni and do not read Gold Pan, we have resorted to this other source.

Well, this promises to be a very busy summer. I certainly hope I do a good job. If anyone out there is interested in helping us out here, were are at SUB 126 and our phone number is 835-5996. We can almost always use good stories, photographs, and extra pairs of hands.

April Drake KS




K. Caylor Photo

Just in case you were wondering why those high school students were here last week, they were here for the 1983 Youth Citizenship Seminar, sponsored by the Great Southwest District of Civitan, Inc. There were more than 60 high school students (both sexes!) in attendance from southern Colorado, New Mexico and El Paso. During the conference noted figures discussed topics concerning political and environmental issues.

Fred R. Harris, former U.S. Senator from Oklahoma, former candidate for President of the U.S., and current professor of political science at UNM meets with a group of high school students (above) during the conference.



HAPPY DOMINION DAY JULY 1



PAY DIRT

BOX 66 CAMPUS STATION NEW MEXICO TECH SOCORRO, NM 87801

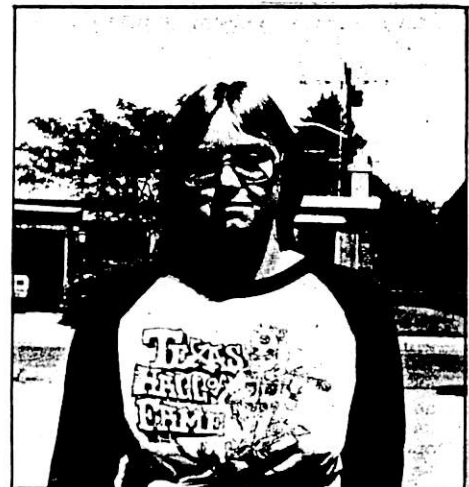
Pay Dirt is a product of the efforts of these fine people:

Eli Blake	Feature Reporter
Kevin Caylor	Assistant Editor
Lynda Caylor	Darkroom Technician
S. Luke Jones	Technical Advisor
J. Brooke King	Editor
J. Kevin Wanner	Road Warrior

Contributing Artists and Writers
Information Services

And this other person wanted his name in the paper:

Eric R. Adams Short Man at Large



Simcox: Writer and Hydrologist

Does a middle ground exist between the sciences and the humanities? At least one student thinks it does. She is Alison Simcox, a hydrologist and a journalist.

Simcox received her Bachelor of Arts degree in English and journalism from the University of Massachusetts in 1975. In those days, before the "high tech" trend swelled the ranks of engineers and scientists, she found herself holding "a B.A. degree when just about everybody had B.A. degrees," she said. "The jobs just weren't there."

Simcox realized her career needed a change in direction. Certification as a high school teacher, a fairly common type of job insurance for liberal arts graduates, proved to be a false move for her. She knew she wanted to write and knew she was good at it; all that was left, as she put it, was "finding a niche within the writing field that wasn't too crowded."

In search of a solution to her problem, Simcox chose to go into geology. It turned out to be a logical choice. "I like the outdoors," she said, "and I just have a natural desire to know how things tick." She went back to the University of Massachusetts for a bachelor's degree in geology, which she received in 1978.

Breakthrough...

FROM PAGE 5

Pajak is aware of that. His native Poland uses now an alternative to oil since Poland has an abundance of coal.

"I guess 90 percent of the electrical plants in Poland are operated by coal," Pajak said. "We have no oil."

"Coal is our main raw material. We export a lot of coal, but we realize it's better to export products rather than raw material," he added.

In Poland, Pajak holds a research post in the Department of Petroleum and Coal Chemistry of the Polish



Simcox measures sediments.

What she had in mind was becoming a science writer, a natural career for a writer trying to choose between the sciences and the humanities. A contact made in 1978 at a Geological Society of America convention led to a job as writer and editor with *Geotimes*, a news magazine for geologists published by the American Geological Institute.

As the first staff geologist in the *Geotimes* newsroom, Simcox found what she had been looking for: a writing specialty that offered challenge and opportunity for creativity, but which was not overcrowded. "I'm very proud of articles I wrote," she said. "For me, writing is very worthwhile."

While Simcox found her writing job well within her abilities, she was less able and less willing to put up with pressure placed on her by her immediate superior at the magazine. In 1979 she looked for another job.

Her versatility paid off once again. "I knew I would

have been hired in any case, but it was really my writing ability that swayed them," she said of her job as a geologist with Law Engineering Testing Company, an Atlanta-based firm. Her achievements there included writing a technical report on salt domes in the Gulf Coast and designing a session for a convention of the Geological Society of America. As she worked on the salt domes project as both a geologist and a writer, Simcox became interested in hydrology. By the fall of 1981, she was New Mexico Tech, working under Dr. Gerardo Gross, professor of geophysics, on the hydrogeology of the Sacramento Mountains.

Simcox, who expects to receive her master's degree New Mexico Tech in June, is not sure whether her future holds a career as a hydrologist or as a writer. The uncertainty doesn't appear to worry her, either. As she put it, "You just hop right into a job and see what you can do."

Academy of Sciences in Gliuice. Gliuice is located in Silesia, the most industrialized region of Poland.

Pajak was similar research before coming to New Mexico Tech last summer through the Fulbright Exchange Program.

Brower had been conducting experiments on liquefaction in recent years. Because of Brower's work, and because the United States is the leading country in coal research, Pajak said he chose to come here.

He also wants to stay at Tech another year to continue

his research. Pajak feels he will have enough data to use for a PhD dissertation. He received his master's in chemistry from Silesian Technical University in Gliuice.

Pajak made a formal request with his government for a one-year extension. A recent telegram informed him that his extension had been tentatively granted.

Brower is pleased that Pajak can stay.

"These experiments are coming along like a dream," Brower said. "I'm extremely pleased."

Lattman. . .

FROM PAGE 2

GP: What are your feelings about Tech's proposed Research Park?

LL: The park should be a great asset not only to the economy of Socorro but to the state. The interaction of high tech companies with the Institute's faculty and students should be of mutual benefit. Technology transfer from the schools, where research can be pursued for its own sake, to companies, where development can be turned into jobs and products, is highly significant. Each needs to be independent, but cooperation is also necessary. The Research Park also would provide students with both jobs and research which would make them more attractive to employers.

GP: What new directions in academia would you like to see at Tech?

LL: Until I do an in-depth study and am satisfied that I know Tech well, it would be presumptuous of me to make statements. As a preliminary observation, though, I would like to see an increase in the graduate effort. This should not be at the expense of the undergraduate effort; undergraduate education would still remain our main mission. However, the number of students entering technical graduate schools across the nation is increasing, and I would like to see that trend at Tech also. Until recently, when students earned bachelor's degrees in engineering, they received so many enticing offers from industry that there was seldom a desire to continue in graduate school. Now things have tightened, and students may be riding out the recession in graduate school. One of our strong efforts in fund raising, will be for scholarships and graduate assistantships. Federal government support is unpredictable, and we must have some form of reserves to dampen the swings in Federal support.

GP: What do you see as the desired balance between research and teaching?

LL: That is a tough question. I would point out that teaching and research should not be thought of as distinct efforts. We have the Petroleum Recover Research Center and the Research and Development divisions, which

are primarily research branches, but their teaching mission is considerable and not totally separate from the College Division. More important than the "balance between" teaching and research is the overlap of the two. Petroleum engineering graduates, for example, among the most sought after today. Here at Tech we have a Petroleum Engineering Department and the PRRC which together make a marvelous pair with the potential for tremendous strength.

As for research funding, federal research dollars depend squarely and totally on the creative thinking of the faculty. Obtaining a federal or other grant requires innovative thinking, innovative research, and, commonly also, innovative teaching. The faculty should be encouraged and given time to expend the effort needed to do creative work and to write proposals.

GP: One of our biggest problems is attracting faculty in fields which are in high demand with industry. What can be done to make academia more attractive?

LL: Salary competition is a major problem. We cannot begin to compete with industrial salary scales; any attempt to do so would result in failure. We need to seek people sufficiently dedicated to the academic life and the freedom and stability which go along with academic life, and we must pay them fair salaries. One of our most challenging problems is to attract bright, young people into teaching and academic research because of the satisfaction inherent in these fields. The salary scales at New Mexico Tech need improvement, and I will attempt to do something about that. We cannot attract or hold quality faculty without reasonable salaries.

GP: Computer science is one of our fastest growing departments. Yet it has many growing pains. Attracting faculty, again, is a problem, and coping with increasing demands for computer time another. What can be done to tackle these problems?

LL: Most computer science departments have these same problems. The competition for computer science faculty is ferocious. Computer science departments are equipment oriented. This equipment is expensive to buy, often in the six-digit figures. Gifts of

computer hardware, although very helpful, are seldom solutions because this hardware comes with no paid service policy. Maintenance and amortization can amount to one percent per month of the total value of the computer. For a \$250,000 computer that would be \$2,500 a month, a very considerable figure. Up to now schools have not amortized scientific equipment. When equipment wore out, it was replaced by new equipment with state monies. But now the cost of this may run into six digits, and the equipment may be obsolete in six years. Amortization must be calculated into the user-charge base to provide at least partial funds for replacement.

Other approaches are also possible. At Drexel Institute of Technology, for example, all students are required to have their own computer. Other institutions require students purchase their own terminal which plugged into the university's main computer. I don't know that Tech would necessarily want to go either of these routes, but I do expect the faculty to give considerable thought to these and other fundamentally different approaches before deciding of the approach for Tech.



Tonight:

STANNUM CINEMA



Next Friday:

The Grateful Dead

Released by Monarch/Noteworthy
Produced by Eddie Washington
Directed by Jerry Garcia and Leon Gast
Animation by Gary Gutierrez

**Start
The
Revolution
Without
Me.**

"EXTRAVAGANTLY FUNNY performances by Wilder, Griffith and especially Sutherland."
—TIME MAGAZINE

"WHAT A PLEASURE TO LAUGH!
The acting to a man is wildly funny!"
CHICAGO TRIBUNE

I will do anything for my country.

Except if it hurts.

Starring **GENE WILDER**
DONALD SUTHERLAND - HUGH GRIFFITH - JACK MCGOWRAN - BILLIE WHITELAW

Tuesday After Next:

"If there is a better American movie actor to be seen anywhere than Robert Duvall in 'Apocalypse Now,' it would be Robert Duvall in 'The Great Santini'."
—Bruce Williamson, Playboy

"Achingly real: the searing conflict between a father and son. You won't forget it."
—Edwin Miller, Seventeen

RARE

THE GREAT SANTINI

"Perceptively moving and funny. Robert Duvall, Blythe Danner and Michael O'Keefe play together with the kind of ease that, in a movie, is as exhilarating as it is rare."
—Vincent Canby, New York Times

BCP Presents **THE GREAT SANTINI**
Starring **ROBERT DUVAL - BLYTHE DANNER**
Also Starring **MICHAEL O'KEEFE - STAN SHAW**
Written for the Screen and Directed by **LEWIS JOHN CARLINO** Based upon the novel by **PAT CONROY**
Produced by **CHARLES A. PRATT** Music by **ELMER BERNSTEIN**

Printed by Technicolor®

"GET A MOVE ON AND GO SEE 'SANTINI!'"
—Gene Shalit, NBC-TV "Today Show"

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The remaining movies on schedule for this summer at Tech:

Friday, July 1	Start the Revolution Without Me
Friday, July 8	The Grateful Dead
Tuesday, July 12	The Great Santini
Friday, July 15	Natinal Lampoon's Class Reunion
Tuesday, July 19	The Cheap Detective
Friday, July 22	Some Kind of Hero
Tuesday, July 26	Hang 'Em High
Friday, July 29	Young Frankenstein
Friday, August 5	Kentucky Fried Movie