



Artist at work

staff photo by Eric Evan Lee

Steve Besselman of Houston will be gazing intently at the front of the Academic Building for about the next two months.

Besselman says former student Richard Bischoff has offered to pay him \$5,000 to make a pencil drawing of the building.

A&M tries to keep pace with technological trend

by Tim Widdison

Battalion Reporter
Students someday may earn a degree at Texas A&M without setting foot on campus.

Instead, they will take coursework home through computer programs.

This may be just one of the influences technology will have on education in the future, Dr. Charles Pinnell, associate deputy chancellor for engineering at Texas A&M, said Thursday.

"Universities will have to pay attention, in my opinion, to this area," Pinnell said.

Children who are learning by computer in secondary schools and come to Texas A&M or other universities for a college education will expect something more than what universities provide today, Pinnell said. The computer age generation will expect a computerized college education, he said.

Research into using new technologies in education is already underway. Videotape has been used for some time at several universities, Pinnell said, although Texas A&M has not used it extensively. A national consortium of universities is developing a library of videotapes for educational purposes, he said.

A major disadvantage of videotapes is that they provide only a programmed lecture without any student-teacher interaction, Pinnell said. Computer-assisted training programs are another effect of technology on education.

Texas A&M currently is using a program called PLATO, he said.

The Programmed Logic for Automated Teaching Operations was designed at the University of Illinois in the late 1960s. The system is now operated and marketed by Control Data Corporation out of Minneapolis.

PLATO is an interactive program using touch sensitive screens on videoterminals, Pinnell said. The system can be hooked up to the main office in Minneapolis to obtain a wide variety of programs, he said.

Advantages of PLATO include providing a self-directed education for students and interaction with the program. It is flexible enough to allow students to learn at their own pace, Pinnell said, and also can answer questions.

PLATO can be used for vocational training, Pinnell said. For example, American Airlines uses the touch sensitive screens for a program on how to start jet engines, he said.

The major disadvantage of PLATO is a shortage of software programs now available, Pinnell said. Currently, it is a time consuming process

to design the programs, he said.

A test project starting in September will examine the influence of PLATO as a supplementary educational tool in a few selected math and English courses, Pinnell said. The selected classes will then be compared with classes not using the computer program to determine how helpful the program is.

What all this means for the future of education is still speculation, Pinnell said, and long range results may not appear for 10 to 20 years.

The effects on the student may be a more intense, faster paced education than what exists today, Pinnell said. Students will learn when, where and what they want, he said.

Teachers may have a chance to teach students on a more personal basis, he said. They will be able to teach 100 to 150 students on a personal basis, he said.

Computer programs also will replace textbooks on college students' shelves, he said.

Of course, some personal guidance for particular students still will be necessary, Pinnell said, and not all courses can be taught by computer. Questions involving judgmental or philosophical aspects of a course still should be handled through teacher-student discussion, he said.

After all, no program can contain all the answers to all the questions, Pinnell said.

Shuttle rollout gets late start

CAPE CANAVERAL, Fla. — The shuttle Challenger slowly made its 3½-mile journey early today to the ocean-side launch pad at the Kennedy Space Center, where officials will prepare it for its third blastoff.

Stacked atop a giant land crawler, the shuttle was scheduled to move at midnight but was delayed 19 minutes because of problems with the internal communications system, space center official Dick Young said.

The land crawler crept along at 1 mph on its seven-hour trip through darkness with its 12 million-pound load, he said.

The Challenger's five-man crew will have a "dress rehearsal" for launch Thursday in preparation for the Aug. 30 trip into space.

The Challenger's third journey into space had been scheduled for Aug. 20 but problems developed testing a data relay satellite that will be used during the mission and the launch had to be pushed back by 10 days.

The spaceplane is scheduled to blast off at 1:15 a.m. — the first night launch in the shuttle program — and is slated to land at 2:45 a.m. Sept. 4 at Edwards Air Force Base, Calif.

Mobile gallery trains by fire simulation

by Karen Schrimsher
Battalion Staff

Texas A&M fire fighting students can train in a situation similar to that of a real house fire, thanks to the loan of a mobile training gallery by the National Draeger, Inc.

The company loaned the \$100,000 worth of equipment to the Oil and Hazardous Material Control division of the Texas Engineering Extension Service.

The gallery will be on loan for an indefinite period because Texas A&M is considered the foremost fire training school in the country, said Draeger sales manager David W. Thomas.

The gallery is composed of three rooms: the control room, the exercise room and the training room.

The control room is a small cubicle where the training sessions are controlled and viewed by the use of televi-

sion monitors. Infrared lights allow the controller to see the action inside the training room even when the training session is held in total darkness and the entire session may be recorded on a video recorder.

The exercise room contains a weight pulley and a laddermill. The weight pulley consists of a rope with a handle and a weight attached at the opposite end. While wearing breathing apparatus, trainees are required to complete a specific number of cycles on the weight pulley.

Climbing on the laddermill causes the rungs to move in a downward direction. The climbing speed and the total distance are adjusted on the control panel.

In the training room, a maze is set for trainees. The maze itself is made of screened side panels and particle board floor panels and is three tiers high. The modular components of the maze may be rearranged to produce different patterns and degrees of difficulty.

The atmospheric conditions, such as heat, smoke and darkness are controlled and used to make the course more difficult. The training room can be heated by three 2,000 watt heaters to simulate the hot environment encountered in a burning structure.

Tom DeLallo, the designer and builder of the gallery, said the gallery does not need to be heated here because it is hot enough in Texas.

A smoke generator uses an electrically-heated head and carbon dioxide gas smoke by atomizing a special fluid. An irritating gas containing amyl acetate also can be used in the training room.

Obstacles such as tunnels and hatches, and fire sounds such as screams and sirens are used to create anxiety and stress. The training room is used for improving orientation, practicing maneuvers and sharpening reactions with the use of a breathing apparatus under conditions similar to those encountered in real life.

Stone returns to U.S.

United Press International

U.S. special envoy Richard Stone returned to Washington today after a two-week tour in Central America, saying his first meeting with a rebel chief from El Salvador was followed by "very useful" talks with Nicaraguan leaders.

In Honduras, President Roberto Suazo Cordova was hospitalized for what government officials termed a routine medical check-up. Sources outside the government said he had suffered a heart attack.

Stone's plane set down at Andrews

Air Force Base in Maryland at 12:20 a.m. Earlier, he wrapped up his trip by meeting for two hours Monday with Nicaraguan Foreign Minister Miguel d'Escoto, junta leader Daniel Ortega and the head of the Foreign Ministry's department on U.S. relations, Saul Arana.

"The Nicaraguan leaders interpreted my visit in a very useful manner and turned my desire to visit Nicaragua into an invitation," Stone said before leaving Managua Airport. "I can only tell you the talks were very useful."

Nicaragua's Sandinista rulers were expected to comment today on Stone's visit, his first since President Reagan sent an aircraft carrier battle group to Nicaragua's Pacific coast and organized maneuvers involving up to 4,000 American troops in neighboring Honduras.

Stone also voiced optimism about his meeting last Sunday in Bogota, Colombia with Ruben Zamora, a leader of the Salvadoran guerrillas' political arm, the Democratic Revolutionary Front.

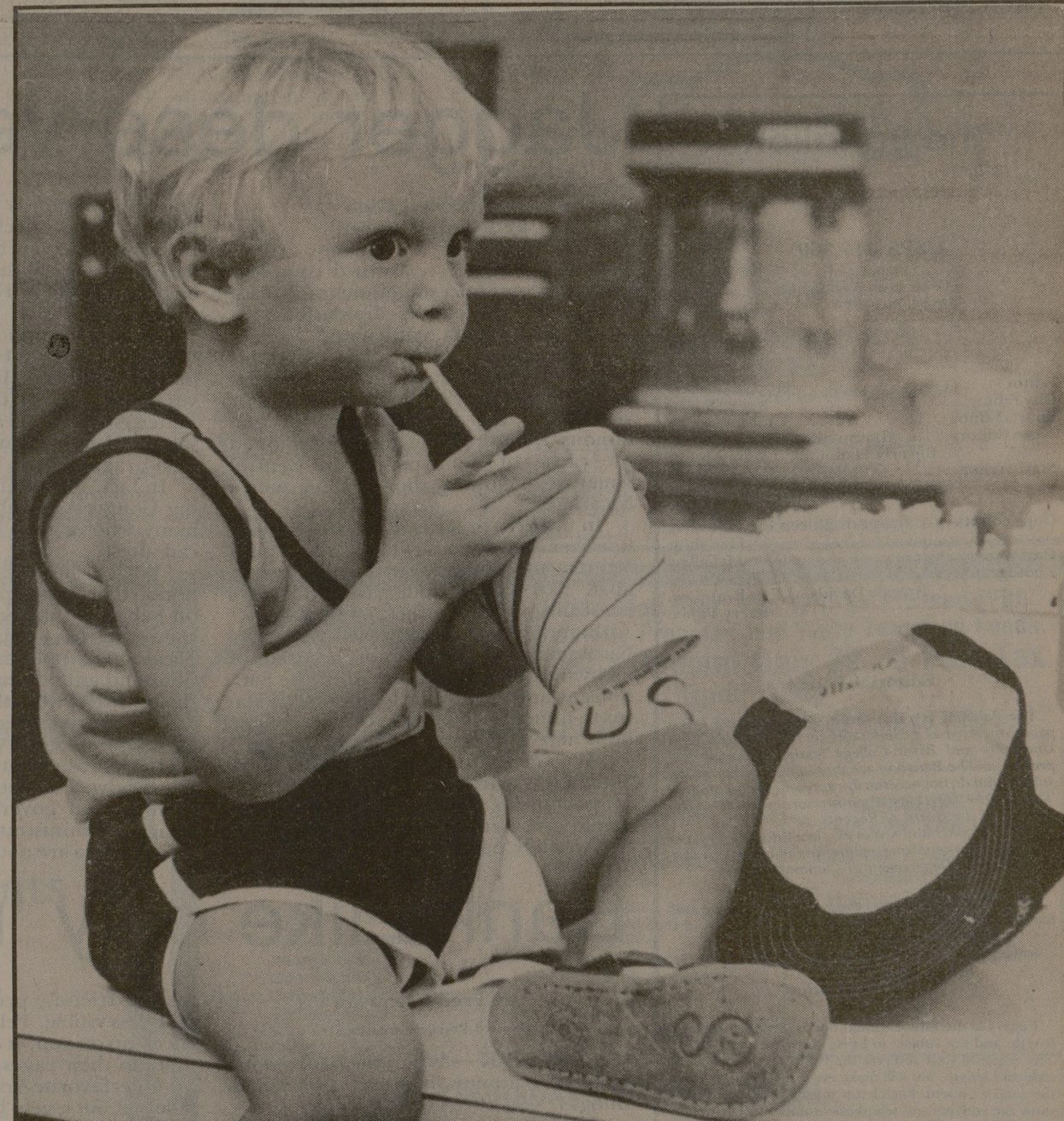


photo by Sally Schwierke

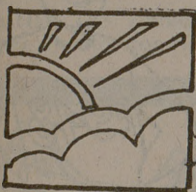
Shake it up

Tyler Nilson, 2, of College Station cooled off Friday with a milkshake from the creamery. With all the warm weather the

Bryan-College Station area has been having, the creamery has been doing a booming business.

inside

- Classified 6
- Local 3
- Opinions 2
- Sports 7
- State 5



forecast

Partly cloudy skies today with a high of 95 and a 20 percent chance of isolated thundershowers. The low tonight near 73. Partly cloudy Wednesday with a 20 percent chance of showers and a high near 93.

Congressional panel OKs nerve gas production

United Press International

WASHINGTON — The Pentagon will be able to produce nerve gas for the first time in 14 years under an agreement reached by Senate and House conferees working on a \$200 billion military spending bill.

A congressional source said Monday the negotiators agreed in a closed

session to lift the moratorium on nerve gas production on the condition that one old nerve gas weapon be destroyed for each new one made.

The conferees are expected to meet all week to resolve remaining differences in the overall legislation, and it is still possible the agreement over nerve gas could be changed before the final bill is sent to the full

House and Senate.

If it does reach the floor of both chambers, it is sure to face another tough fight.

The House narrowly voted June 16 to continue the unilateral U.S. ban on nerve gas production. On July 13, in a dramatic vote that saw Vice President George Bush break a 49-49 tie, the Senate authorized resumption of

nerve gas production.

Rep. Ed Bethune, R-Ark, who has consistently fought the plan in the House, predicted it would be defeated again.

The conferees, working on a spending bill of about \$200 billion for the 1984 Pentagon budget, accepted the Senate language that prohibits final assembly of the weapons before

Oct. 1, 1985, congressional sources said. It also would require presidential certification that such production is in the national interest.

The United States and the Soviet Union are signatories to a 1925 protocol that outlaws first use of chemical weapons, but both sides have stockpiles and defensive equipment in case the other party breaks the treaty.