

## Historical marker celebrates circuit's 30th anniversary

DALLAS (AP) — It will be a day late, but Gov. Bill Clements will help dedicate a state historical marker to commemorate the 30th anniversary of the first working integrated circuit.

Integrated circuits, which have come to be known as computer chips and are the brains behind everything from microcomputers to musical greeting cards, were first demonstrated on Sept. 12, 1958 in a laboratory at Texas Instruments headquarters.

The marker, to be unveiled in a 9 a.m. ceremony Monday, honors Jack St. Clair Kilby, 64, who first demonstrated his idea that basic building blocks of electronics — capacitors, transistors and resistors — could be built out of a single semiconductive material.

The discovery helped eliminate the expense and time

needed to hand-solder electronic circuits.

Kilby constructed a somewhat crude working model from a material called germanium and started an electronics revolution that changed the face of science. His discovery helped TI become one of the world's most successful high technology firms.

He also is a co-inventor of the hand-held calculator that TI developed to show the commercial possibilities of the integrated circuit.

Kilby, 64, will attend Monday's ceremony that will be hosted by Jerry Junkins, chairman, president and chief executive officer of TI.

Kilby's first integrated circuit had the nine components in a space one-sixteenth of an inch wide by seven-sixteenths of an

inch long.

Now, 180 billion integrated circuits later, in a day when more than 700,000 components can be crammed onto a chip, Texas is hitching its hopes to computer chip development and manufacturing.

TI announced last Thursday that it would spend \$30 million in the next six months to a year developing a prototype production line at its Dallas headquarters for future-generation RISC chips.

Four other top chipmakers also plan to help Texas become a world center of development for the newest computer rage.

Within about an hour's drive of each other in Austin, International Business Machines Corp., Motorola Inc., Cypress Semiconductor Corp. and Advanced Micro Devices Inc. all are devel-

oping RISC chips. Each established or will establish research, design and development facilities in the area.

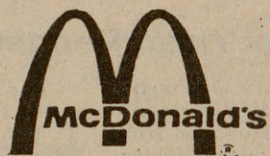
Craig Ensley, vice president of four-year-old Austin-based Intel Semiconductor, told the *Morning News* that Texas in chipmaking is more than a mere resurgence. He sees developments in the state proof that the semiconductor industry is shifting its focus to the West Coast to Texas.

"There's no question in the mid-1990s, Texas will be the dominant center of gravity in semiconductor industry in this country," Ensley said.

Chipmaking in Texas nearly a straight circuit through Dallas, Austin and San Antonio.

# INTRAMURAL HIGHLIGHTS

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### FOOTNOTES

- There will be a Corp. Captains Meeting Wednesday, September 18, at 7:00 PM in 167 Read.
  - There will be a Flag Football Captains Meeting Thursday, September 15, at 5:00 PM in 601 Rudder.
  - There will be a 16" Softball Captains Meeting Thursday, September 15, at 6:00 PM in 164 Read.
  - All participants competing in the Intramural Triathlon on Sunday must be checked in by 9:00 AM. The race will begin at 10:00 AM.
  - There will be mandatory meeting for all participants in the Intramural Triathlon on Thursday September 15, at 5:00 PM in 267 G. Rollie White. Race packets will be distributed and all pertinent information will be posted.
  - Preseason Flag Football schedules will be posted Thursday September 15, at 3:00 PM.
  - Preseason Flag Football play will begin Friday September 16, so don't forget to come check the schedule.
  - Table Tennis Singles will be posted at 4:00 PM on Friday September 16.
- \* If you have not come by to sign up for the Intramural Triathlon come on by and do so. There are still plenty of T-shirts left and time is running out.

### RECREATIONAL ID'S STILL AVAILABLE

The Intramural-Recreational Sports Office is still selling and renewing Recreational ID's for the faculty, staff and their spouses. Individuals with these ID's may have access to recreational facilities during the evening and on weekends. The cost for the ID is \$7.50 for faculty/staff and \$15.00 for a spouse.

### SPORTS CLUBS

**Rugby:** The A&M Rugby Team split its match against LSU Sat., Sept. 3 by losing their first game 18-0 but came back to win their second game 12-6. Scoring for A&M was Marty Pairs, Ryan Okane and Kevin Kuene on a penalty play. If you want to catch the Rugby Team in action, they will play the Old Maroon (former A&M Rugby Team members) at 11:00 AM on Sat., Sept 17, on the East Campus Field.

**Men's Soccer:** The A&M Soccer Team will go up against SFA this weekend so come on out and catch the action at the East Campus Field at noon Saturday.

**Ultimate Frisbee:** The Ultimate Team will be having a tournament this weekend. On Saturday they will be playing on the Polo Field from 10:30-6 and Sunday over at the Expansion Intramural Sports Field from 12-4.

### GOLF DRIVING RANGE HOURS

The Driving Range located at the Intramural Sports Center is now open for operation Mon-Thu, 3 PM - 8 PM; Fri, 12 PM - 6 PM; Sat, 10 AM - 6 PM; and Sun, 12 noon - 6 PM. Individuals with student ID or TAMU Recreational ID may purchase a large bucket of balls for \$3.00 and a small bucket of balls for \$1.50. Without an ID individuals may purchase a large bucket of balls for \$4.00 and a small bucket for \$2.00. Club rental is also available. For more information, contact the IM-Rec Sports Office, 159 Read, or call 845-7826.

### EXERCISE CLASSES

Need help getting in shape? Already in shape and want to stay that way? Sign-up for the Exercise Classes offered by the Intramural-Recreational Sports Department and taught by the Waist Basket. Registration will begin on Aug 29 and run until Sept 9. Classes begin on Sept 12 or 13 and run until Nov 30, Dec 1 or Dec 9 depending on which class is chosen. Late registration will be held if there are any openings available. There will be no classes during the Thanksgiving holiday. For more information, contact Paula Opal at 845-7826.

## TAMU-OUTDOORS

### KAYAK ROLL INSTRUCTIONAL CLINICS

Learn the mechanics of the eskimo roll! Experienced guides will be on hand to instruct and assist you in sessions at the Outdoor Pool. The \$8.00 (\$10.00 non A&M) fee covers instruction, kayak rental and pool time. Limited to 10 participants. For more information, contact Patsy Greiner at 845-7826. DATE: Sept. 22, 6:15-8:30 PM REGISTRATION: Sept. 5-19 DATE: Sept. 27, 6:15-8:30 PM REGISTRATION: Sept. 12-26 DATE: Oct. 6, 6:15-8:30 PM REGISTRATION: Sept. 19 - Oct 3 Date: Oct 11 6:15-8:30 PM REGISTRATION: Sept. 26-Oct. 10 DATE: Oct. 20, 6:15-8:30 PM.

### KAYAKING WORKSHOP

Take the weekend of and learn the fundamentals of kayaking in a two day class offered by TAMU Outdoors on October 1 and 2. The first day will be an introduction to kayak strokes, rescue, and the eskimo roll. The second day will be spent on the San Marcos river learning how to paddle the boat and get a feel for white water. Registration begins September 12-26 but sign up early because class size is limited. The cost for the class is \$40.00 (\$45.00 non A&M).



### FINALLY SOMETHING YOU CAN AFFORD TO FLAG! T-SHIRT DESIGN CONTEST

Entries are being accepted for the Third Annual T-shirt Design Contest. This contest is held to determine University T-shirt design for the 1989-90 school year. All entries must be received no later than 5:30 PM, Tuesday, September 13. All entries must be 12" by 12", black ink on white paper and should include the words "Intramural Champion 89-90" or "All-University Champion 89-90". It is also recommended that "Texas A&M" or the block ATM be included in the design. Entries will be judged by a panel of students, faculty and staff with the entry best depicting Intramural-Recreational Sports All-University Champions being declared the winner. The winner will be notified April 17 and will receive a trophy.

### IM GAMEPLAN

#### ENTRIES OPEN: SEPT 5

#### ENTRIES CLOSE: SEPT 13

**FLAG FOOTBALL** Entry Fee: \$30.00 per team. Play Begins: Mon, Sept 19. Divisions: Men's and Women's Residence Hall, Men's and Women's Independent, Corps, Fish, Fraternity, and CoRec will play round robin tournaments in Classes A, B, C and D. Rules: NIRSA Rules with intramural exceptions will apply. Schedules: Independent, Residence Hall, Fraternity and CoRec team captains may pick up their schedule at the Team Captain's Meeting on Thu, Sep 15, 5 PM, 601 Rudder. Corps Athletic Corporals may pick up their schedules on Wed, Sept 14, 5 PM, 167 Read.

**PRESEASON FLAG FOOTBALL** Entry Fee: \$10.00 per team. Tournament Dates: Fri, Sept 16 through Sun, Sept 18. Divisions: Men's A, B & C; CoRec A & B; and Women's Open Rules: NIRSA Rules with IM exceptions will apply. Schedules: Will be posted on Thur, Sept 15 after 3 PM in 159 Read Bldg. All games will be played as scheduled. No reschedules. No games will be played during the Aggie-Alabama Football Game on Sat, Sept 17.

**16" SOFTBALL** Entry Fee: \$25.00 per team. Play Begins: Mon, Sept 19. Divisions: Men's and Women's Residence Hall, Men's and Women's Independent and CoRec. Rules: Are available in the IM-Rec Sports Office. Schedules: Will be available in the IM-Rec Sports Office.

**TRIATHLON** Entry Fee: \$5.00 per person. Competition Format: 250 yd. swim, 4 mile run, 4 mile bike. Divisions: Individual, Men's, Women's. Team Competition will be in Men's, Women's. Men's Master and Women's Masters. Masters of Master's Teams must be 25 years and older.

**Rules and Course Maps** are available in the IM-Rec Sports Office. Participants Meeting: participant's meeting will be held Thu, Sept 15, 5 PM, 267 G. Rollie White.

**TABLE TENNIS SINGLES** Entry Fee: FREE. Begins: Tue, Sept 20. Divisions: Men's and Women's Residence Hall and Men's and Women's Independent. Schedules: Will be posted after Fri, Sept 16 on the bulletin boards outside the IM-Rec Sports Office.

**THANKS TO GENERAL MOTORS:** General Motors is sponsoring the CoRec Class B tournament in the Intramural Program. All Class B CoRec Champions will receive General Motors T-shirts. We are very appreciative of General Motors support of the Intramural-Recreational Sports Office.

#### ENTRIES OPEN SEPT. 12

#### ENTRIES CLOSE SEPT. 20

**HORSESHOE SINGLES** Entry fee: Free Play Begins: Tuesday, Sept. 27. Tournament: Classes A, B, C will play single elimination tournaments. Schedules: Schedules will be posted after 1 PM on September 23 on the bulletin boards outside the Intramural Office, 159 Read. Eligibility: All TAMU faculty, staff, and their spouses with recreation ID and intramural valudation are eligible to play if they meet the eligibility requirements in the Intramural-Recreation Sports Calendar/Handbook. Location: Horseshoe pits are located directly north of the Penberthy Intramural Complex by the Fish Lot and are available for use when not in use for intramural competition. Equipment: Horseshoes are provided for the tournament.

**BILLIARD DOUBLES** Entry Fee: \$4.00 per team. Play Begins: Friday Sept. 23 through Sunday Sept. 25. Schedules: Thursday, Sept. 22, 3 PM outside the Intramural-Recreational Sports Office. Tournament Structure: Double elimination. Competition: Men's and Women's Divisions will be offered with no distinction (no A,B or C). Residence Hall teams will receive points as if they were in Class A. Equipment: Provided by the MSC. Personal equipment is allowed. Rules: BCA Rules with Intramural exceptions. Consist of 3 out of 5 games.

**ACKNOWLEDGEMENTS:** McDonald's Intramural Highlights is sponsored in the Battalion by you! McDonald's Restaurant at University Drive, Manor East Mall, Hwy 21, Texas Ave. at SW Parkway and Oak Mall. Stories are by Steve Harding, graphics are by Paul Irwin and photos are by Mark Figart and Cowan.