



King and Chancellor

## THE KING AND US

Former King Leopold III of Belgium, in the U.S. for the first time since 1919, paid an "unofficial" visit to M.I.T. last Thursday (Sept. 5). Welcomed by Chancellor Stratton, Leopold spent about four hours at the Institute talking to faculty men prominent in a number of fields and touring new M.I.T. facilities, including the nuclear reactor on Albany Street and the Computation Center in the Compton Labs. Said His Highness of M.I.T. at the day's end: a princely place.

## ROCKET POWER

M.I.T. may be known to the world for education and research, but to Boston softball fans it is equally famous as the Home of the Rockets. An aggressive and talented team, the Rockets (so named by Johnny Annis of Bldg. 24) this summer won both the regular league schedule (with a 16-and-5 record) and the playoffs in the Cambridge Barnyard League, top league in the city.

With a roster of students, non-staff, and staff players, the scarlet and grey team has an impressive record of championships.

Three years ago they won the Metropolitan Boston title, and for the past two years have been the Cambridge Industrial League champs. For this year's Barnyard League title, a large share of the credit goes to team manager Dan Calileo (RLE) who was also instrumental in organizing (but not in naming) the League. Bob Cavaleer (Cryogenic Lab) also serves the League both as a commissioner and as public relations man.

Manager Calileo is at the left in the players' picture on this page. In the middle are pitchers (both of Lincoln Lab.) Bill Mumbauer (front) and Jack Kitch, whom players and fans consider the top pitcher in the Boston softball leagues. At the right is Jimmy Watson (Instrumentation) who clinched this year's play-off title for the Rockets with a three-run game-winning homer.

For next year, one thing is certain: The Rockets ain't moving west.



No star like a rocket



## COOL SCHOOL



Prof. R.D. Parks (left) and  
Crystal Cliffs students

A distinguished group of friends--including several Canadian college presidents--helped M.I.T. celebrate a birthday on August 30th. The occasion was the 10th graduation ceremony at M.I.T.'s Summer School of Geology ( a converted farm now bearing the title of Nova Scotia Centre for Geological Sciences) near Antigonish, Nova Scotia.

Crystal Cliffs, besides being an ideal spot to spend a cool summer, is the home of a unique international venture in education. Co-sponsored by M.I.T. with Nova Scotia government and business groups, the school during the past decade has provided practical field training for some 350 geology students from 34 states, Canada, and such faraway lands as Mozambique. While Crystal Cliffs students spend some time in regular classroom studies, they concentrate on surveying, mapping, and collecting mineral specimens. In the process they have set up no

less than 50 camp sites around Nova Scotia, occasionally sharing their warm tents with a stray and chilly fox.

Although a thesis entitled "The Carboniferous Sediments of the Knoydart Area" might not mean a lot to most of us, such Crystal Cliffs research has yielded valuable new knowledge of Nova Scotia's mineral resources. With a grant from the Atomic Energy Commission special research has been carried on to discover the age of rock samples from Nova Scotia, and from this the age of the earth. Professor Fairbairn's graduation address about this research revealed that some of the granites of Nova Scotia have had half a billion birthdays--but without any celebration at all.

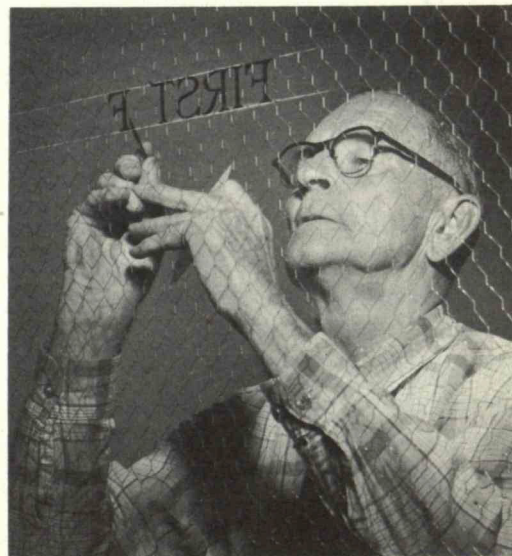
## NO SIGN OF RETIRING

It all started with a simple requisition for a new sign on the door of our "Tech Talk" office. In the natural course of events we discovered the man for the job was Joseph F. MacAllister--and meeting Joe proved to be a pretty special event.

As the man who puts about 4,000 names and numbers on M.I.T. doors every year, Joe knows more people than most anyone around. Officially retired three years ago, Joe still takes care of all his lettering work--which he paints freehand in flawless Futura--on a part time basis. The plastic name plaques found on Institute doors he now engraves in his shop at home.

"The nicest thing about part-time work," Joe confides, "is that it gives a fellow time for fishing in the afternoons" A most "compleat angler," Joe ties his own flies--and gives away many more than he keeps. President Killian is among the satisfied owners of a MacAllister-tied "Ike-Geiger" fly, which Joe patterned after one originated by the late head of the athletic department.

When we snapped Joe's picture (right) last week he had just returned from a unique 70th birthday celebration: an emergency appendectomy. But now Joe's very much back on the job--except, of course, when he's off fishing.



In the afternoons, fishing



With the official dedication in August of the 3000-mile DEW line (distant early warning line) of radar stations across the North American arctic came a deluge of press reports about continental air defense and the part M.I.T. has played in the air defense program. Latest tip-of-the-hat to the M.I.T. role appeared in the current issue (Sept. 6) of "U.S. News and World Report" where Gen. Earle E. Partridge, Commander in Chief, North American Air Defense Command, underscores the importance of equipment "developed by laboratories of the Massachusetts Institute of Technology in Boston." The General was referring, of course, to the work of Lincoln Laboratory.

Unlike the M.I.T. Radiation Lab., Lincoln did not galvanize into action over-night to meet the crisis of global war. Born into the post-war tensions of 1951, the Laboratory was set up at the joint request of the Army, Navy, and Air Force. Its assignment: to help in the improvement of America's air defenses -- at a time when the possibility of lightning attacks by planes carrying nuclear weapons made necessary a system of long-range detection and communication much more speedy and powerful than anything known before.

Lincoln personnel, now numbering more than 2000 (average age:32), have all played a part in the big steps taken by the Lab to solve this defense problem. Together they have developed an electronic wizard to assist in some of the most efficient sky-scanning on record. The heart of continental air defense is Lincoln's SAGE system. SAGE, which is shorthand for Semi-Automatic Ground Environment, is built around unusually versatile computers (amended progeny of Whirlwind I), hooked up to a network of radar reporters on land, at sea and in the sky. This system is tied-in with appropriate defensive weapons.

In working out a program of this size, the Laboratory has recruited a big variety of research talent. Radar and communications experts have come to Lincoln from RLE, computer experts from the Servo Lab, aeronautical experts from the Instrumentation Lab, and specialists from other educational institutions, and from industry. The research these men are doing runs the gamut from solid state physics to psychology. There are men working on radar sets -- large and small. There is a group which hopes to teach digital computers to read. Some men are concerned with bouncing radio waves off meteor showers in perfecting "forward scatter" techniques. There is a revolutionary technique of "printed wiring," being used at Lincoln, in which camera, planar masks and collimated light are used to print three-dimensional circuits formerly taking hours to "wire" by hand.

It is no coincidence that the laboratory which has helped to develop some of the most powerful radar equipment ever built has designed some of the most advanced "plumbing" facilities in existence. The rectangular jointed pipes which thread Lincoln Laboratory's radome-dotted buildings carry nothing so mundane as water. Through them high frequency radio waves flow from radar transmitter to antenna and from antenna back to receiver. Lincoln personnel talk about this "microwave plumbing" as casually as we talk about the waves in the sea.

Since the Laboratory also builds a lot of the equipment used for its research, squads of technicians and machinists are kept busy putting amplifiers and other delicate apparatus together. Apparatus lately has included more and more memory paraphernalia for Lincoln's five electronic brains. And the latter is a good example of Lincoln ingenuity beyond the demands of its national sponsor: the machine now turning out memory cores is a converted producer of aspirin tablets.



Lincoln Director A.C. Overhage (L.) and Associate Director W.H. Radford(R.)



## THE FLU & YOU

Not for all the tea in China would we wish "Asiatic Flu" on "Tech Talk" readers. According to the Medical Department, however, it's just not as bad as it sounds. Says Medical Director J. M. Faulkner: "Most current cases of Asiatic Flu appear to last only a few days and to leave no after-effects."

Although the Medical Department is keeping a close eye on the current epidemic, no program of mass vaccinations is planned. The effectiveness of vaccinations, our doctors say, "can only be guessed at," and vaccination itself may cause unpleasant reactions in about a fourth of the recipients. But a supply of vaccine will be available here in the near future, and individuals may request it at \$1 a shot.

Summing up: Though the current epidemic may indeed invade the Institute with uncomfortable results to some, there is no cause for alarm.

## RECOMMENDED

Three M.I.T. faculty members will help to open the Boston Public Library's book festival at 3:30 p.m. next Sunday (Sept. 15), with a discussion of challenging ideas in science. The speakers and their subjects are: Professors Robert M. Fano on "Communication in Man and Machines;" John C. Sheehan on "Antibiotics;" and T. J. Thompson on "Atoms in a Peace Economy." The program is open to the public.

## A MISS & A MRS.

We missed a credit line in our last issue when we ascribed a group of water colors of autumn woodlands on exhibit at the Faculty Club to Mr. James Livengood of the D.S.R. research staff.

No so, for the artist--as Mr. Livengood was the first to point out--was Mrs. Livengood. "Tech Talk" herewith apologizes to the lady, exonerates the husband, and hangs its proof reader from her paint-smearred thumbs.

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## FOR SALE ETC.

Hedstrom Coach baby carriage. Used less than  $\frac{1}{2}$  doz. times. Heavy chrome frame. Extra duty white wheels. Sold for \$49.95. Best offer. UN4-1184.

'53 Studebaker. 4-door sedan. Overdrive, heater, low gas consumption. R. W. Brunskill, Ext. 4410

'55 Plymouth. 4-door Savoy. 19,000 miles. Power-flite. 8 cyl. R&H. Overdrive. Excellent cond. Original owner. \$1250. B. Soffer, Ext. 2193.

'52 De Soto. 4-door sedan. Automatic transmission. Good cond. Anthony Schepis, Ext. 679(Lincoln), or WA4-7914.

'51 DeSoto "Sportsman" hardtop convertible. R&H. Well cared for. \$500. Alice Jeghelian, Ext 862 or MI3-5270.

'54 Studebaker Commander, lt. blue, only 42,000 miles. Single owner, excellent cond. \$600. R. B. Lees, Ext. 2525.

'54 Ford, 2-door, 8 cyl., \$800. C. J. Haberstroh. Rm. 52-156A, or EL4-1953 evenings.

For sale: Split level ranch: 2 car garage, 3BR, 2B, playroom, large lot.  $4\frac{1}{2}\%$  mortgage available--easy financing. Asking \$24,900. Helen Morgan, NE3-4616-J.

For Sale: Home in Melrose. East side. Close to schools. 2LR (one with firepl.), den, large family DR, K with laundry, downstairs lav., 4BR, 1 extra room, full B. Fully insulated, very low heat. cost. Corner, landscaped lot (approx. 10,000 sq. ft. ), 2 car garage. \$19,000. ME4-8699.

Lincoln Lab. staff member will marry school teacher when they find a furn. or unfurn. house to rent with space for 2 grand pianos. Prefer Bedford, Carlisle, or Acton. Phil Bagley, Ext. 172 (Lincoln), or UN4-2485.

Must vacate present apt. Sept. 4. If you have furn. apt. in vicinity of Harvard Sq. and would like to share, contact Janice Callahan, Group 312--Lincoln, Ext. 7378.

Wanted: old piano rolls for son. Will pick up. Al Greco, CI7-7993.

For sale: Concord--5-year old Cape. In attractive new section, near schools, golf course, hospital, bus lines, and shopping center. 6 large rooms, including: full DR, tiled B, full basement, forced hot air heat, all electric. EM9-9491.