

## IN RETROSPECT

Memorable...significant...and, above all, busy. That was 1961 at MIT. Looking back, the Institute could review a year that probably will stand as a high water mark in the school's history.

For it was the Centennial Year...the 100th anniversary of the granting of the MIT charter. It was a year both for sober assessment of the first century and for bold planning toward the second century.

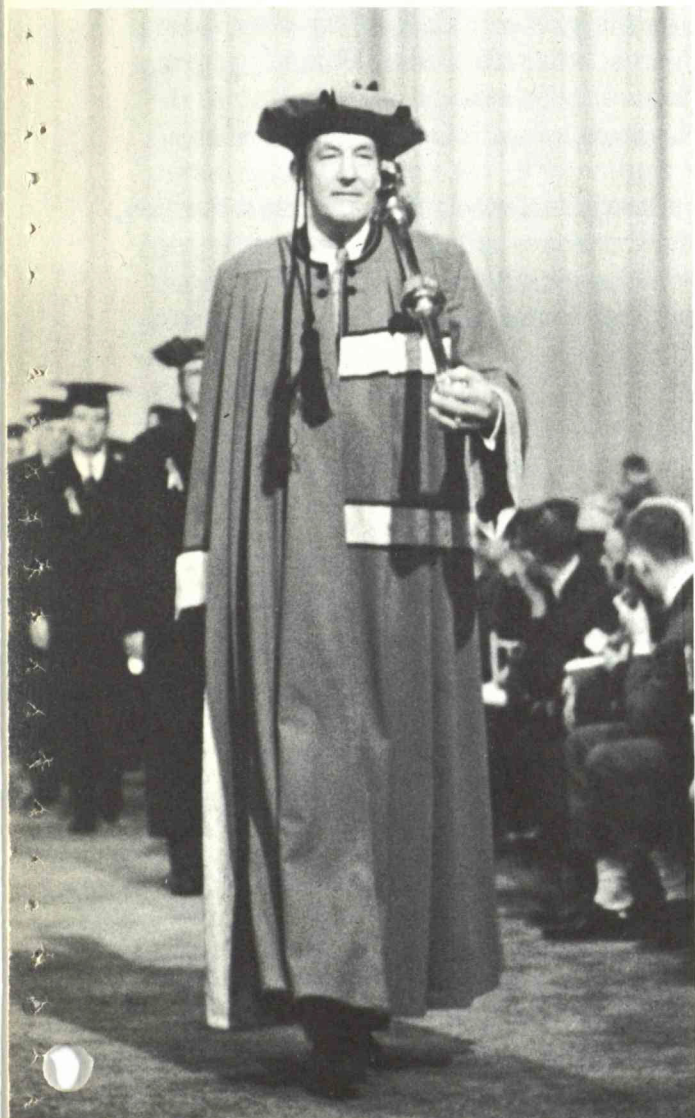
It was the year of the Centennial Celebration, the event last April that made an indelible impression not only on those of us who work and teach and study here, but also on the world of higher education in science and technology. For four days, delegates from throughout the world met here to discuss and struggle with the role of education and educational institutions in the modern society with its ever-widening frontiers of science and technology. That was followed by the three-day Centennial Celebration in which world scholars and leaders (Great Britain's Prime Minister Harold MacMillan, U.S. Secretary of State Dean Rusk, to name two) came to Cambridge to pay tribute to Tech for 100 years of excellence in education and wish us well for our second 100.

President Stratton has termed the Centennial Celebration a "momentous occasion" that made a lasting impression on visitors, alumni, students, faculty and administration.

"We who at the moment are so intensely involved in shaping the growth and development of MIT are perhaps too close to the scene to view the transformation of recent years in detached perspective or to grasp fully its implications," the president said in his annual report. "Certainly the discussions that revolved about the central theme of the Centennial program have provoked new thoughts upon the role of the Institute in the modern world. The interweaving of science and engineering with every aspect of the economic, political and social life of the nation emerges again and again as the dominant movement of the twentieth century."

Dean Gordon Brown of the School of Engineering, in his annual report, termed 1961 the most eventful in MIT history and the Centennial Celebration the major event.

"The colorful pageantry of the academic procession and the homage that was accorded MIT in the salutations received from the great universities in all countries of the world were certainly most impressive," he said. "But history will record that the intellectual



Chief Marshal David A. Shepard leads Centennial procession.

stirrings stemming from the panel sessions and conferences of scholars of many diverse disciplines preceding the Centennial ceremonies were the decisive events."

1961 also was the year of the Second Century Fund and the building program projected under it. At the year's end, the SCF had passed the \$50 million mark on its way toward the ultimate goal of \$66 million. The vast building program for which the SCF provides and which will give the campus a new look for the second century began taking shape at year's end. Workmen were started on the \$5 million 20-story Center for Earth Sciences building on East Campus and work is scheduled to start soon on a \$1.5 million dormitory for women students on West Campus. Also started in 1961 was detailed planning for the \$6 million five-story Center for Materials Science and Engineering that will start rising in the main parking area late in 1962.

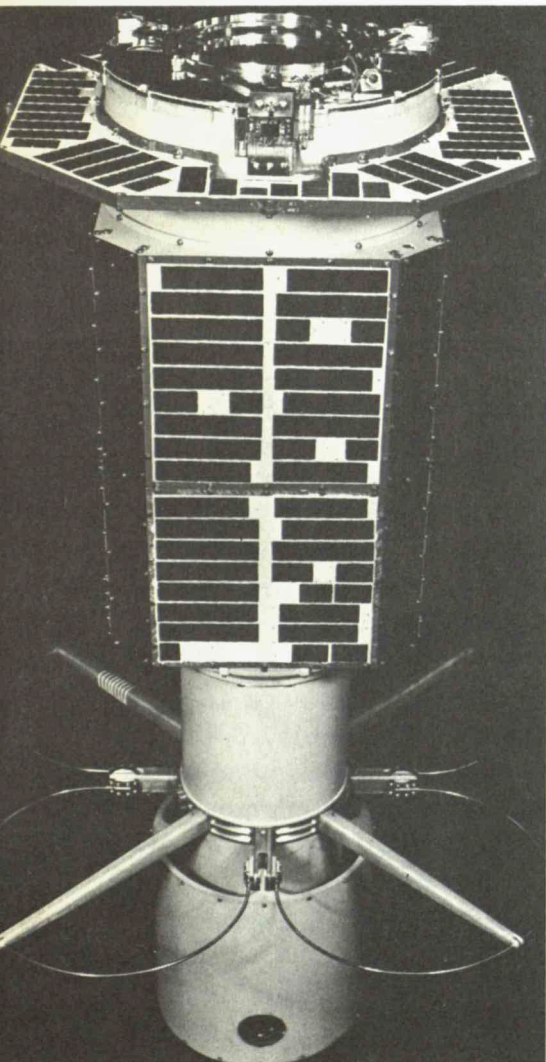
All in all, 1961 was, as Dean Brown put it, a most eventful year.

#### AND THIS ALSO HAPPENED...

It was a memorable year in other ways, too. It was the year that Tech Block, older itself than Tech's own Cambridge campus, was destroyed by fire, and as the new year dawned workmen were razing the shell that remained. It was the year that work started on converting the old Ward Baking Co. building on Albany St. into a permanent home for MIT's National Magnet Laboratory, and it was the year the Laboratory attracted more than 700 scientists for an international conference on magnetism. It was the year that MIT's nuclear reactor was used in treatment of brain cancer. It was the year that a gamma ray telescope and a solar wind probe, both made at MIT, were lofted into orbits around the earth.

MIT people made news last year, too. Dr. Charles Townes, international authority on microwave amplification by stimulated emission of radiation (masers) became MIT's provost. Professor Victor F. Weisskopf of the Department of Physics became director-general of CERN, 14-nation European organization for nuclear research. Professor Jerome Wiesner of the Electrical Engineering Department became science advisor to President Kennedy. Electrician Abner (Ab) Stodder of Physical Plant celebrated 50 years of continuous employment at MIT (without once ever being late to work) and at year's end was still going strong. An MIT graduate student, Air Force Captain R.C. Wingerson, came up with a new design concept that may help science harness power from the fusion of hydrogen, and at year's end others in his group were busy building equipment to test out the concept. And Frances Dyro, a junior from Portland, Me., became the first woman student to occupy the chair of editor of the student publication, Tech Engineering News.

Also last year...the Burton House Dining Room was completed...plans were laid for a \$3 million housing project for married students to be located at the west end of West Campus...the old Steam Power Laboratory was torn out of Bldg. 3 and a new interdisciplinary Engineering Projects Laboratory installed in its place...the IBM 709 computer was moved to the fourth floor of Bldg. 10 and a new all-transistorized IBM 7090 was being installed in its place in the Computation



Gamma Ray Telescope

Center (Bldg. 26) in its place... a new program of seminars was started for freshman, each seminar headed by a leading faculty member.

### MEANWHILE, IN THE LABS...

At Instrumentation Laboratory, it was the year of the Titan and the Apollo. 1961 saw the first successful tests for the Laboratory-designed guidance system in the Air Force Titan intercontinental ballistic missiles. And it was also the year that the Laboratory, because of its past successes, was asked by the National Aeronautics and Space Administration to design the guidance-navigation system for Apollo, the project to send three Americans on a round trip to the moon. Also, in 1961, Instrumentation groups moved into refurbished quarters at 224 Albany St.

At Lincoln Laboratory in Lexington, it was the 10th anniversary year and to mark it the Laboratory started a series of decennial lectures at Kresge Auditorium in Cambridge (see Page 4). Also for Lincoln, 1961 was the year of West Ford, of the FX-1, and of Haystack. Lincoln people carried out for the Air Force Project West Ford in which a package containing millions of tiny needle-like dipoles were put into orbit in an experiment on world-wide communications; but the dipoles apparently failed to spread out in a signal-reflecting cloud. Also Lincoln people built the world's fastest computer, the FX-1, and the world's largest radome, the Haystack at Tyngsboro, Mass. Still other Lincoln people, these at the Lab's El Campo, Tex., station, made radar contact with the sun during 1961.



Haystack Radome

### ...AND THERE WERE STATISTICS

We grew in 1961 to a community of some 13,000... including nearly 5,700 employees and administrative officers, 6,400 students and 760 faculty members. To keep us going during the year, according to Physical Plant, we consumed 390 million pounds of steam, 223 million cubic feet of gas, 1.7 million gallons of oil, 28 million kilowatts of electricity and 441 million gallons of water. In Kresge Auditorium there were 20 lectures, 46 concerts and appearances by 14 guest artists. And in the MIT Chapel, there were 50 weddings. The freshman class, admitted in the fall, totalled 909, including 22 women, and its members were selected from more than 6,000 applicants. The graduating class last June numbered 1,249.

And inventiveness was unabated in 1961. The DSR Patent Section handled 126 actions on patent cases during a year which saw us make 21 different patent applications while at the same time we were issued 20 patents.

### THE NEW YEAR BEGINS

And with the start of 1962, MIT was off with its best foot forward, or, better yet, its best hand forward. The Institute announced last week that a graduate student, Dr. Heinrich A. Ernst, 28, of Zurich, Switzerland, had perfected a computer-controlled mechanical hand that, among other things, manipulates wooden blocks much like a young child, as part of a basic study of artificial intelligence.

## LINCOLN LECTURES

Fourth in the series of eight Lincoln Decennial Lectures commemorating the 10th Anniversary of MIT's Lincoln Lab will be Tuesday evening (Jan. 9) at 8:00 p.m. in Kresge Auditorium. Dr. Stanislaw Marcin Ulam, research advisor of the Los Alamos Scientific Laboratory, University of California, Los Alamos, New Mexico, will speak on "Computers". Tuesday (Jan. 16), Dr. Edward George Bowen, an original member of the English radar development team in 1935, will speak on "Radio Telescopes". Dr. Bowen is Chief of the Division of Radio Physics of the Commonwealth Scientific and Industrial Research Organization, Sydney, Australia.

## OPPORTUNITIES OFFERED

Lowell Institute School will offer two advanced subjects in electrical engineering during the spring term beginning Jan. 29 for engineers and outstanding graduates of technical institutes who desire to further their education in an active--but not necessarily competitive--atmosphere.

Review of Networks and Fields will cover network graphs through s-plane analysis and basic electromagnetism through the use of Maxwell's equations in integral form. The instructor will be Alvin Drake of the MIT Electrical Engineering Department. The other course is Electronic Circuit Theory to be taught by Frederick C. Hennie, III, an MIT Assistant Professor of Electrical Engineering. This course will review the concept of impedance, active circuits, feedback, stability, oscillators and waveform generation. Applications for the spring term must be returned before Jan. 20.

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### FOR SALE ETC.

1 pr. men's loafers size 6 1/2 in perf cond, worn once. Original price, \$8.95; selling price \$5. Tony, Lincoln ext. 241.

Ski rack for MGA or other sport cars. Used only a few times. 1/2 price, \$12. Also, wanted VW ski rack. Call Laurice Tahmoush, Lincoln ext. 203.

Kneissel skis, 7' w/safety bindings. \$42. Fred, ext. 2576.

Early American living room suite (bed sofa, chair and rocker), \$140. Wadsworth, ext. 4242.

Wrought iron kitchen set, table (good size, including leaf, 5 chairs, reasonable). Call WA4-5656 after 6 pm.

Woman's royal blue quilted ski parka (Sportcaster), medium, \$15. M. Ketchum, ext. 2701.

Tape recorder, Wollensak T1515-4. Stereo-mono, absolutely like new, \$120. Pilot tuner, FM Challenger amp., GE preamp., University speaker system. (woofer tweeter crossover net, base reflex enclosure.) Exc cond, \$90. UN8-7856.

Carpets: 7'x4 1/2' green on green Wilton. Barely 2 mos. old. \$20. 9'x12'ish quite old Burgundy-colored. Can be cut into several smaller pieces. \$5. Call Joan Steck, ext. 5253 or CO7-0582 evgs.

Electric Rotissomat (Roto-Broil 400) slightly used, \$29. Robert Langridge, UN8-6594 after 6 pm.

Sherwood S-3, 000 FM Tuner. Call Jane Dennis, IV4-8932 after 6 pm.

Heathkit FM Tuner recently realigned, \$15. Ext. 2205 or WA4-6439.

Two 6.00x16 snow tires in good cond, \$5. Dr. Hatch. Call VO2-2646 evgs.

Trumpet-Vega power special-exc cond, plush case. Best offer. Call William Pearlman, ext. 4962.

3/4 size Violin particularly nice instrument. Complete w/2 bows. Perf cond. Sale price, \$65. Call Mrs. England, CL9-8197.

'50 Plymouth 2 dr sedan, 73,000 mi, good running cond. \$100. Call Mr. Enstice, ext. 4211.

'53 Olds, 4 dr, Super 88, auto trans, power brakes, R&H, good tires, very clean inside, poor body, 75,000 mi, \$200 or best offer. Martin Wohl, ext. 2728 or WA4-6984 evgs.

'53 Chevy sedan, 2 dr, snow tires, reliable transportation. Best offer. Call ext. 167 or CE5-1295.

'56 VW, exc cond, G. Strehle, ext. 4498.

'56 Mercedes-Benz 219, exc cond, low mileage. Becker-Mexico AM-FM Radio. Call MI8-2826 after 6 pm.

'56 Ford Fairlane, 38,000 orig. mi, Fordomatic V8, new ww's, new battery & brakes, asking \$575. John Shea, ext. 4958 or GE6-7166 evgs.

'57 Willys 6 Wagon, 2 wheel drive, R&H, Lincoln ext. 5420 or VO2-2174 evgs.

'58 Goliath (by Borgward) 4 new tires, 28 mi per gallon. \$450. Fred Wilson, ext. 2172.

'59 Ford Galaxy Conv., 2 tone blue, deluxe equipment, one owner, beautifully maintained and serviced, low mileage, one price only \$1500. IV4-9190 after 6 pm.

'61 Rambler American conv., white, auto trans. (R&H), ww's, exc cond. Must sell. Call KE6-6091 evgs.

Mobile home, 42'x8'. Ready for occupancy. Completely furnished, w/refrig. and washer. Has 30'x8' alum awning attached. \$2500 or best offer. Morrin, ext. 3432.

Apt. to sublet, entire second floor, furn w/heat for 4 people. Avail on or before 3/1 to 9/1. Beacon St. near Mass. Ave. \$160/mo. Anne Hernon, ext. 3570.

Rooms for rent near Arlington Ctr. Kitchen facilities, \$10/wk. Frank Doyle, VO2-3370, ext. 688 or MI3-1449 evgs.

Wanted: Used piano to buy or to rent for 1 year. Call Klaus Scherrer, ext. 726 or TR6-1514.

Wanted: Rmmate to share w/1 other girl, attractively furn apt. near Porter Square. Large private BRs, \$62.50 per person. Will split this w/anyone occupying before or on Feb. 15. Call KI7-7429.

Wanted: Ride from Cleveland Circle, Beacon St. area--9-5. Jane Kaminsky, ext. 685.

Wanted: Rmmate and apt. in Cambridge. Ida Lipp, ext. 4245.

Wanted: To rent single house w/3 BRs, 2 baths preferably in suburban area Feb. 1 for 6 mos. Contact John Wynne, ext. 167.

Wanted: Male grad or Prof. to share 3 rm apt. furn on Beacon Hill. \$62.50. Call LA3-1583 evgs.

Wanted: Perry's "Chemical Engineer's Handbook". A. V. Marrow, 491-3698.

Female rmmate wanted to share large furn apt. w/3 other girls on Beacon St. For more information, call ext. 4851 or CO6-4718 evgs.

Wanted: Stratocaster Fender and Jazz Master Fender, DE2-3974 after 6 pm.