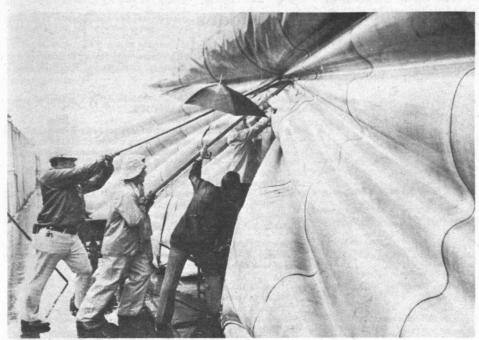
Massachusetts Institute of Technology



August 11, 1976 Volume 21 Number 3



Hurricane preparations at MIT Monday (Aug. 9) proved to be a deflating experience for the J.B. Carr Indoor Tennis Center, which was taken down to protect it from expected high winds. The air-inflated "bubble" sagged to the ground about 90 minutes after the air-supply fans were shut off and the vents were opened; sandbags and rainwater held it down. The indoor courts aren't used in the summer and crews will wait for a calm day to reinflate the structure to avoid ripping the fabric. The Physical Plant prepared for the storm by having sandbags, pumps and



emergency generators ready and supervisors on duty throughout the night, but damage was pretty much limited to two uprooted willow trees on Briggs Field. Dr. Hurd C. Willett, professor of meteorology emeritus, helped plot the course of the storm for the Physical Plant during the day Monday; the highest wind gust recorded by the anemometer on top of the Green Building was 47 knots (about 55mph) about 8am Tuesday (Aug. 10).

Telephone Tolls Reverse Mies van der Rohe Dictum

"Less is more," proclaimed the famed architect Mies van der Rohe.

"It's the other way around—more is less—on the MIT telephone bill," according to Morton Berlan, superintendent of telecommunications.

"There were 2,661 more long distance telephone calls during the most recent billing period than were made during the same period in 1975, yet the telephone tolls were \$11,575.99 less," he said.

He credited the saving to wide acceptance and use of the Flexible Route Selection system (FRS) which went into effect in May.

"Clearly a large part of the community is making use of the FRS—or "dial 6" system," Mr. Berlan said, "because more calls were made via FRS than regular Long Distance

"However," he noted, "a day-byday comparison cannot be made because FRS and LD use different billing cycles. Also we don't have figures as yet on how many calls are being transferred automatically from FRS to LD."

Figures for the most recent billing cycles and a comparison with the same period in 1975 are shown in the accompanying tables.

Comparison of Long Distance Calls July 1976

	July	1310		
	LD		FRS	
No. Calls	16,664		18,131	
No. Minutes	102,431		91,886	
Cost	\$44,116.76		\$17,460.44	
cost/Call	\$	2.65	\$	0.97
Cost/Minute	\$	0.43	\$	0.19

Comparison of Long Distance Calls

	July 1	975/1976	
No. Calls	July 1975	July 1976	Difference
LD	32,134	16,664	
FRS	-	18,131	
Totals	32,134	34,795	+2,661
Cost LD	\$73,153.19	\$44,116.76	
FRS	-	17,460.44	
Totals	\$73,153.19	\$61,577.20	-\$11,575.99

All Class A, or unrestricted, telephones have access to FRS, Mr. Berlan said, and plans are underway to extend the service to Class B, or semi restricted, telephones later this

year.
To use FRS, dial 6 plus 1 plus area code plus seven-digit number. Most calls will be routed via Wide Area Telephone Service (WATS) lines. If a WATS line is not available, the call

will automatically transfer to the

regular LD route and be billed ac-

cordingly. It is estimated that only three to seven percent of FRS calls will be transferred.

Dialing 6 also works within our own area code, 617, by dialing 6 plus 1 plus seven-digit number.

The annual saving by using "dial 6" is estimated at \$130,000 on toll charges of approximately \$825,000, Mr. Berlan said.

Telecommunications costs for the year ending June 30 were \$125,000 less than what had been projected.

"This shows that MIT people are concerned with keeping costs in balance," Mr. Berlan said. "Wider use of FRS will help continue this trend."

\$5 Fee Set For Parking

A \$5 fee for parking stickers has been instituted to offset administrative costs of the parking program, effective with 1976-77 stickers, Professor Paul O. Roberts, chairman of the Parking Committee has announced.

Applications for 1976-77 parking stickers are being distributed to department heads this week. When completed they should be returned to the department head with a \$5 check or money order—payable to MIT—for each sticker desired. In addition, those seeking more than one sticker are asked to show registration for the second vehicle to the department head.

As an incentive to those interested in forming car pools, sticker fees will be waived for those in registered car pools. To be recognized as a car pool, two or more drivers, each of whom drives periodically, must band together. (MIT's car pool matching program will be available again in the fall for those who do not now have matching information and wish to participate.)

In compliance with one of the requirements of the revised Boston Transportation Plan promulgated by the Environmental Protection Agency, MIT this year will close the Munroe Lot near Kendall Square. The 48 Lot on Vassar Street also will be closed for planned construction. This represents a loss of 339 spaces, according to Patricia Paula, recently appointed parking coordinator at Campus Patrol.

Bulletin Out

The Courses and Degree Programs issue of the MIT Bulletin for 1976-77 has been published and is available at the Information Center, Rm 7-111.

The 530-page book, primarily a registration guide for MIT students, includes detailed descriptions of subjects and de-

partmental requirements.

The Courses and Degree Programs issue is one in a series of five issues of the MIT Bulletin published yearly. Other issues include the General Catalogue due out in September, the Report of the Treasurer due out in October, the Report of the President and Chancellor due out in November and the Summer Session Catalogue due out in February.

The General Catalogue issue of the MIT Bulletin will be available at the Information Center early in September.

Stever Assumes White House Post

Dr. H. Guyford Stever, director of the National Science Foundation, was confirmed Monday by the U.S. Senate as director of the recently established Office of Science and Technology Policy in the White House.

Dr. Stever was formerly professor of aeronautical engineering, associate dean of the School of Engineering and head of the Departments of Mechanical Engineering and Naval Architecture and Marine Engineering (now Ocean Engineering) at MIT before becoming president of Carnegie-Mellon University in 1965. At the White House he will occupy a post similar to that held by Dr. James R. Killian Jr., honorary chairman of the MIT Corporation, in the Eisenhower Administration and by President Jerome B. Wiesner in the Kennedy and Johnson Administrations. The post was abolished during the Nixon Administration and was recreated by Congress in May.

Bathe is Co-author

Professor Klaus-Jürgen Bathe of the Department of Mechanical Engineering is co-author of Numerical Methods in Finite Element Analysis, published in June by Prentice-Hall, Inc.

Viking Biology Data Control Test Planned

Results from the third Viking biology experiment indicate the possibility of biological activity in a sample of Martian soil, scientists announced Saturday, Aug. 7. A control test, in which the soil will be sterilized to kill possible organisms, is scheduled for Aug. 23.

But puzzling results from the two earlier biology experiments could be explained by an inorganic process having to do with Martian weather, an MIT researcher told Viking scientists last week.

Dr. Robert L. Huguenin, a staff researcher in the MIT Department of Earth and Planetary Sciences, was invited to the Jet Propulsion Laboratory in Pasadena, California, last Monday, Aug. 2, to present his theory to Viking scientists.

Two results had been puzzling Viking scientists, who were not sure whether to attribute them to organic or inorganic processes.

One was the large amount of oxygen produced in the gas-exchange experiment. The other was the large amount of radioactively labeled carbon dioxide produced in the labeled-release experiment.

Dr. Huguenin said that his theory of Martian weathering provides an inorganic explanation for those results—assuming that the soil samples contained at least a tenth of a percent of "unweathered" soil.

Some parts of Mars act as dust traps and may contain deposits of bright dust more than a mile deep, he said. But dust is continuously swept from other regions by the wind, exposing dark unweathered rocks and sand.

Viking I landed near the edge of a bright area in Western Chryse Planitia, where some dark unweathered soil and rocks should be exposed, he said.

Dr. Huguenin suggests that as water vapor condensed on the unweathered parts, it was "ripped apart" into hydroxyl ions (OH) and hydrogen ions (H). The hydrogen ions were incorporated into crystals, he said.

What was left, he said, was a layer of frost with the remaining hydroxyl ions. As the water in the frost evaporated, the exposed hydroxyl ions combined to form hydrogen peroxide

Dr. Huguenin said that if this

theory is correct—and if the soil samples contained a small amount of unweathered soil—the Viking results are not surprising.

In the gas-exchange experiment, in which samples are heated to nine degrees Centigrade, and are exposed to water, the hydrogen peroxide would go into solution and release oxygen.

In the labeled-release experiment, the soil sample is exposed to radio-actively labeled formic acid (HCOOH). "The formic acid vapor can react with hydrogen peroxide to produce water and radioactively labeled carbon dioxide," Dr. Huguenin said.

He said that the results of the third biology experiment support his theory. In the third, pyrolytic release experiment, the samples were ex-

(Continued on page 2)

Soil Analyzer To Try Again

Viking's miniature soil analyzer—temporarily stymied in its search for organic compounds on Mars because of a malfunctioning collection arm—was turned on Friday in hopes that it might contain soil collected July 28.

"We don't know whether we have a sample in the instrument," said Professor Klaus Biemann of MIT, leader of the Viking molecular analysis team. "We're just taking a chance."

He said that scientists won't know the results until Thursday, Aug. 12, when they will repeat the experiment at 500 degrees Centigrade.

In any case, he said, the collection arm appears to be working again and it is scheduled to deliver a new soil sample to the gas chromatograph-mass spectrometer on Friday, Aug. 20.

Professor Biemann said that the collection arm "may have been too cold, although it was tested at much lower temperatures. We're going to try to avoid using it during very cold periods."

He said that the mass spectrometer "works like a charm."

Working with Dr. Biemann on Viking have been staff researchers Dr. James E. Biller and Dr. Arthur L. Lafleur, programmer-analyst Edward M. Ruiz, and graduate student John M. Lavoie.



August 11 through August 29

Seminars and Lectures

Thursday, August 12

Amino Acid Metabolism and Gluconeogenesis in the Developing Neonatal Rat* - Keith Snell, biochemistry lecturer, University of Surrey, England; visiting scientist, Cancer Research Institute, New England Deaconess Hospital. Nutrition & Food Science Seminar. 8:30am, Rm 66-

Monday, August 16

A Study of the Light Shift Inside the Doppler Broadened Line* - Peter E. Toschek, University of Heidelberg, West Germany. Laboratory for Laser Physics and Spectroscopy Laboratory Seminar. 11am, Rm 10-105. Coffee

Community Meetings

French Enthusiasts - French table for "brown-baggers" Wed, 12:30pm Muddy Charles. All levels of fluency invited, beginners included. Info: C. Roberts, x3-5802.

MIT Women's Forum** - Meetings Mon, 12n, Rm 10-105 (Tues in case of holiday.)

TOPS - Tech Organization of Professional Secretaries. Next meeting Thurs, Aug 16, 12n-2pm, Rm 10-105. Resume Tues meetings on Aug 24.

Technology Nursery School - Now accepting applications for new school year from MIT children, ages 2 years, 9 mos. to 4 years, 9 mos. There are 2day, 3-day and 5-day programs. Eastgate: 9am-1pm weekdays (bring lunch); Westgate: 9am-12n weekdays (no lunch). Info: x3-5907.

Social Events

Faculty Club Special Dinners*** - Thurs, Aug 12: Lobster Night. Baked or boiled, with salad bar and dessert table, \$7.95 + tax. Tues, Aug 17: Rib Night. Complete dinner \$6.50 + tax. Wed, Aug 25: Clam Bake. Steamers, lobster, corn, baked potato, salad bar, \$8.50 + tax. RSVP for all, x3-4896.

Strat's Rat - Fri, Aug 13, 8:30pm-2am, Sala. Cold beer, wine & coke sold cheap. Free, college ID required.

Quarter Century Club Clam Bake - Thurs, Aug 19, 6:30pm, Kresge Plaza. Reception from 3pm on for members and their guests at Historical

24-Hour Coffeehouse** - Open thru end of Aug, 10am-12m Sun thru Thurs, 10am-2am Fri & Sat. Located on 2nd floor of Stu Ctr. Stocks various cold drinks, other snacks for hot summer's day. Stop by and try something a little different this summer!

Movies

My Night at Maud's (Rohmer)* - Film Society. Fri, Aug 13, 7:30 & 9:30pm, Rm 6-120. Admission \$1.

Assassination Bureau** — LSC. Fri, Aug 13, 8pm, Rm 26-100. Admission 75¢, MIT or Wellesley ID required.

- LSC. Sat, Aug 14, 8pm, Rm 26-100. Admission 75¢, MIT or Wellesley ID required.

On the Town** - LSC. Fri, Aug 20, 8pm, Rm 26-100. Admission 75¢, MIT or Wellesley ID required.

Shaft - SCC MidNite Movie. Fri, Aug 20, 12m, Sala. Free, college ID re-

Spartacus** - LSC. Sat, Aug 21, 8pm, Rm 26-100. Admission 75¢, MIT or Wellesley ID required.

Sangam Movie* — Title to be announced. Sun, Aug 22, 2:30pm, Rm

Murder, She Said** — LSC. Fri, Aug 27, 8pm, Rm 26-100. Admission? MIT or Wellesley ID required.

Gypsy** - LSC. Sat, Aug 28, 8pm, Rm 26-100. Admission 75¢, MIT Wellesley ID required.

Kushboo* — Sangam Movie. Sun, Aug 29, 2:30pm, Kresge.

Dance

MIT Folk Dance Club - International: Sun, 7:30-11pm, Sala. Balka Tues, 7:30-11pm, Stu Cntr Rm 491. Informal: Fri, 12n-2pm, Kresge (in good weather). Israeli: Thurs, 7:30-11pm, Sala.

Exhibitions

Strobe Alley* - High Speed photographs by Harold E. Edgerton, Institu Professor and Professor of Electrical measurement, Emeritus. Bldg 4, 4

Music of the Celestial Dieties* - Music Library exhibit of manuscri facsimiles & pictures. Daily, Bldg 14 E.

Hart Nautical Museum* Permanent exhibit of rigged merchant and nav ship models of yachts and engine models. Bicentennial exhibit: "1776-197 — a frigate, 2 schooners, a gondola, and the Durham boat of the America Revolution. Open daily in Bldg 5, 1st floor.

MIT Historical Collections* — Permanent exhibition Mon-Fri, 9am-5pp Bldg N52, 2nd floor. Bicentennial Exhibits: Katharine Dexter McCo mick, '04; Vannevar Bush, '16; Karl Taylor Compton; and Norbert Wiene 1876 exhibit, Bldg 4 corridor. The New Technology Exhibit and Energy Exhibit: 2nd floor balcony.

Freshmen are encouraged to attend departmental lectures seminars. Even when these are highly technical they provide stude one means to learn more about professional work in a department a

*Open to the public
**Open to the MIT community only

***Open to members only

Send notices for Aug 25 through Sept 12 to the Calendar Editor, Room 111, Ext. 3-3279, before noon Friday, Aug 20.

Viking Tests Outlined

evolution.

(Continued from page 1)

posed to light and temperatures of 600 degrees Centigrade, which would evaporated the hydrogen peroxide. The intense oxidizing reactions that produced oxygen and carbon dioxide in the first two experiments could not have occurred in the third experiment.

None in fact was observed, which strengthens the inorganic explanation for the reactions in the first two experiments, Dr. Huguenin said. Instead a much weaker reducing reaction apparently occurred, which cannot be explained as a simple consequence of the weathering model.

If his theory is right, would it have been better for Viking to look for life in a pure sample of weathered soil? Would the hydrogen peroxide in a small amount of unweathered soil prove too hostile to life?

Dr. Alexander Rich, Sedgwick Profesor of Biology at MIT, and a member of the Viking active biology investigation team, doesn't think so.

"What's actually going on there we don't know," he said. "But living organisms are incredibly capable of adapting to different types of environments. There are organisms on earth that actually use hydrogen peroxide."

If life exists on Mars, he said, "it's hard to imagine that it would have such limited adaptability" that it could exist in some parts but not in others

Dr. Huguenin also said that data returned from the Viking I lander on Mars support a current theory that ed-sort of sunburne peeling-because of its exposure to ultraviolet sunlight.

According to the theory, iron-bearing minerals in the surface alter to ferric oxide (rust) and several other substances by direct interaction with atmospheric oxygen, carbon dioxide, frost, and ultraviolet sunlight.

The process, he said, produces tiny scales on rock and mineral surfaces that are easily dislodged by windblown dust and sand. The flecks of rusty dust were predicted to be about 100 times smaller than grains of beach sand, and are capable of remaining suspended in the tenuous Martian atmosphere.

Dr. Huguenin said that the Viking experiments confirmed that there is enough oxygen present (about 0.3 percent) for the process to occur, and the color images revealed a bright pink sky, which supports the prediction of the extremely small suspended dust particles.

Dr. Huguenin, who developed the current theory from laboratory studies he completed at MIT in 1972, is a specialist on planetary weathering processes and atmospheric

"If the landing had taken place at the original site, further into the bright Chryse Planitia region, we probably would have seen thicker dust deposits and less dark material," he said.

Dr. Huguenin said that the formation of the dust may have had a major effect on the evolution of the huge consuming atmosphere, amounts of water and carbon dioxide. It may in fact have used up nearly all of the water evolved from the interior of the planet.

Although water is used up in the process, Dr. Huguenin emphasized that the rust and dust can form by direct interaction with atmospheric gases and ultraviolet radiation. It does not need liquid water or rain to happen. Thus, "One can visualize the surface as becoming sunburned and peeling as a result of exposure to ultraviolet light," he said.

In the forestalled seismological experiment, intense efforts were still being made to release the lander's seismometer from the mechanisms used to cage and protect its sensing element during launch and landing shocks, but the probability of uncaging the instrument appears to be small, according to Dr. M. Nafi Toksoz, professor of geophysics in the MIT Department of Earth and Planetary Sciences and a member of the Viking seismology investigation team. Dr. Toksoz is also director of the George R. Wallace, Jr., Geo-

physical Observatory.

The malfunction and consequent inability to obtain seismological data is "a great loss to science," said Dr. Toksoz, who noted that eight years of work had gone into the experiment. The "prime hope" of the team now lies in an identical instrument being carried aboard the Viking 2 lander,

Assisting Dr. Toksoz have been Dr. Anton Dainty of Brighton, a research associate in the Department of Earth and Planetary Sciences; two graduate students, Kenneth R. Andersen, of Brookfield Center, Conn., and David H. Johnston, of Cambridge, and a sophomore in earth and planetary sciences, Joan Gomberg, of

Working on the Viking radio science team is Dr. Irwin I. Shapiro, professor of physics and professor of geophysics at MIT. He is assisted by staff researchers Dr. Robert Goldstein and Dr. Robert Reasenberg.

Obituaries

Abner Stodder Dead at 83

Abner Stodder, a retired electrician in Physical Plant and one of MIT's few 50-year employees, died Monday, August 2, in Somerville. He was 83.

Ab, as he was commonly called, came to MIT in 1911 and retired in 1962. Other 50-year employees include Frederick Broderick, Wolcott A. Hokanson, William O'Conner, Arthur White and Nick Carter.

At a party honoring Ab on October 25, 1961, 500 persons reminisced about his colorful career at MIT. One year, it was recalled, Ab had the job of changing all of the Institutes' clocks to Daylight Saving Time-a job which he accomplished on rollerskates. Mr. Stodder never missed a Commencement while he worked at MIT, and was responsible for the electrical wiring at all 50 of them. This included Commencements held at the old Rogers Building at Copley Square, and at Boston Symphony Hall. He also worked on all 50 Massachusetts High School Science Fairs held while he was at MIT.

He was a trustee of the MIT Employees Mutual Benefit Association, which was replaced in 1938 by compulsory Institute insurance. He was on the first Credit Committee of the MIT Credit Union, and was a charter member and the first president of the Quarter Century Club.

Mr. Stodder was also a member of the Blue Lodge of Malden, Scottish Rites Aleppo Temple and the Royal Order of Jesters, A.F. and A.M. of

He is survived by his wife Helen (Gregan), a former nurse at the MIT Infirmary, and a sister, Mrs. Mabel Miner of Marblehead.

Health Plan Notice

Membership in the MIT Health Plan is renewed each year effective September 1. Members are automatically reenrolled unless they want to terminate membership. Any member who wants to convert from the MIT Health Plan to Master Medical coverage, or any person who wants to join the MIT Health Plan, should contact the Plan Office at 253-1322. The office is relocated to Room 12-132.

Alfred E. Ennis, 57, Dies

A funeral Mass for Alfred E. Ennis, an administrative staff member in Physical Plant, was held Wednesday, August 4, at 10am at St. Jerome's Church, Arlington.

Mr. Ennis, 57, of Arlington, died Sunday, August 1, at Lawrence Memorial Hospital, Medford, following a brief illness.

Mr. Ennis was widely known to generations of MIT students in his

succeeding positions as assistant manager and manager of Kresge Auditorium and later as senior manager of Kresge and the MIT Student Center. In 1972 he joined the



Physical Plant central administra-

tion where he worked on special services such as arrangements for major international conferences held at MIT and the annual commencement exercises and other ceremonial functions.

A native of Cambridge, Mr. Ennis was a graduate of Rindge Technical High School. He joined MIT in 1946 as a painter after serving four years in the US Army. He became assistant manager of Kresge Auditorium in 1957. He was a member of the MIT Quarter Century Club.

Mr. Ennis is survived by his widow, the former Rose Marcellino; a daughter, Marilyn Fowler of Tewkesbury; a son, Alfred E. Ennis, Jr., of Arlington; a sister, Mary Burke of Montana; and two grandchildren, Douglass and Kenneth Fowler of Tewksbury.

INSTITUTE

NOTICES

Announcements

must be returned to Rm E19-344 no later than Fri, Aug 13 to indicate whether diplomas are to be mailed, called for in person, or if June attendance is planned.

Grade Reports-Grade reports for students attending regular summer session will be mailed to term address on Fri, Aug 27. Students should report corrections in address to Registrar's Office, Rm E19-335, no later than Fri, Aug 13. Telephone requests will not be

R/O Activities-R/O Committee will soon be finalizing its schedule for Aug 30-Sept 12. Any activity or organization wishing to have an event in the R/O calendar which will be distributed to incoming freshmen should notify Jerry Epstein, c/o FAC Office, Rm 7-103, x3-6771, by Aug 16.

Club Notes

MIT/DL Bridge Club**-ACBL Duplicate Bridge. Tues, 6pm, Stu Ctr West Lge.

Ecology Action*-Office open 9am-6pm, Stu Ctr Rm 002. All welcome, please drop in.

MIT Goju Karate Club**-Mon, Wed & Fri, 7-9pm, Stu Ctr Rm 407. Info: Shawn x3-2018.

Hobby Shop ** -- Mon-Fri, 10am-6pm, Rm W31-031. Fees: \$10/term for students, \$15/term for community. Info, x3-4343.

MIT Space Habitat Study Group*-Meetings Thurs, 7pm, Rm 37-252. Interdisciplinary studies on space colonization. Everyone interested is invited. Office: Rm 24-415. Info: B.

Religious Activities

The Chapel is open for private meditation 7am-11pm daily.

MIT Buddhist Association*-Weekly meditation Mon, 5:30pm, Rm 8-205. All welcome, prior experience in meditation not necessary.

Campus Crusade for Christ*-Family Time, Fri. 7:45pm. Rm 37-252.

Jesus Christ's Full Gospel Meeting*-Singing, praise, prayer, testimonies and other preaching. Sun, 2:30pm, Stu Ctr Rm 355. Info:

Prayer Time**-Lunch hour Bible classes led by Miriam R. Eccles. Fri, 1-2pm, Rm 20E-225 All are welcome.

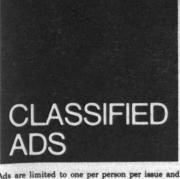
Tech Catholic Community*-Sunday Mass: 10am, Kresge Little Theatre. No mass on campus Sun, Aug 22.

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Ads are limited to one per person per issue and may not be repeated in successive issues. All ads ccompanied by full name and Institute
Only Institute extensions may be listed must be accompanied by the man and institute extension. Only Institute extensions may be listed. Members of the community who have no extensions may submit ads by coming in person to the Tech Talk office, Room 5-111, and presenting Institute Identification. Ads may be telephoned to Ext. 3-3270 or mailed to Room 5-111. Please submit all ads before noon, Friday, Aug 20. They will be printed on a first come first serve basis as space permits.

For Sale, Etc.

Asst rims, tires & parts for '70 Renault R-10. Norman, x8-1637 Draper.

Bridal gown, pearled satin w/cathedral train, long veil, pearled headdress tailor-mede as 5.7, 2000 veil, pearled headdr Call 494-0411, evgs.

Fedders 5000 BTU AC, 115 volts, v gd cond, \$100. Call 524-1041.

Sgl box spr & matt, \$15; console TV \$25; washer & dryer, \$25/ea; other misc furn & hseplants; moving soon, must sell, nego. Call 354-5779, evgs.

Dbl bed w/frame, box spr & matt, \$25; sgl bed w/mtl spr frame & matt, \$20; wd desk; wd dresser; wd closet, \$15/ea. Eric, x3-5334, lve msg.

Soligor zoom lens, Nikon mnt, 90-230 mm, f4.5. Jim, x3-6378.

Moving, must sell dbl matt w/box spr, yr old, exc cond, \$35; sm wd desk; wd bkshlf; dresser w/mir-ror, lamp. Kathy, 738-1450. Coop boxes, sm, nw & unused, cost \$18, \$12. Bob,

Pentax 135 mm lens, must sell, almost nw, \$90. Laura, x3-4433.

GE 12" port TV, UHF, VHF, old but works, \$30. x8-2872 Draper.

Imperial Turtle wetsuit, ¼", xtra lg, cstm made, yr old, worth \$110, ask \$55. x8-1216 Draper.

(2) pr Bose 901's, lk nw. Call 266-6377, evgs.

Canon FT w/50 mm f1.8, \$140; Canon 28 mm f3.5 FL lens, \$65; Canon 55 mm f3.5 FL Macro, \$75; Canon 85 mm f1.8 FL, \$70. Susan or Grant, 782-

Office desk, lg, formica & stl, 3 mos, exc cond, \$100; Singer port sew mach, attach, gd cond, \$100. Toni, x3-6244.

French wedding dress by Pronuptuia, chapel length w/long lace sleeves, sz 9-10, \$80 nego. Call 623-3719.

Nice oak desk, \$45 or best. Call 494-8887, evgs.

Plants: aloe, grapefruit tree, ivy, lg spider, donkey's tails, others, \$2-\$5; 8' rubber tree, \$40. donkey's tails, x5-4389 Dorm.

Teak dining tbl w/expansion leaves, 4 mtch chrs,

Pet gates, 2, used less than 1 mo, \$25/both. Debbie x8-4419 Draper.

Elec broom, \$10. Bob, x3-7914.

(3) fans, 10-18", \$5-\$15; fluorescent desk lamp, \$10; ironing brd, \$5; Dunlop tennis rckt, nds nw str, \$8; Bancroft squash rckt, \$10; Mustang snows, \$15. Peter, 354-5917.

Rugs: 2 lite brn, 10x6' & 10x15', \$25/both; 10x12 grn, \$20/ea; twin matt & box spr, mtl frame, \$15; floor lamp, \$7. Giorgio, 354-5917.

Moving? 20 cu ft steamer trunk, 27x28x47", \$15. Roy 440-9400, days.

Caloric gas stove, 4 brnr, sep broiler, \$75 or best; want gas water heater, 30-50 gal capacity. x3-7998.

Toaster, \$10; baby stroller, \$20; suitcase, \$15; wedding gown, sz 12, \$100; pr ww tires, 1 mtd, C78x15, \$40. x8-1471 Draper.

Collection of postage stamps, foreign & US, sheets, blocks. Lenny, x3-4215.

Lg 235 lb refrig, \$100; lg 18 lb washer, \$50; K formica tbl, brn top, \$15; mtch dresser & dbl bed, \$135; twin trundle bed, \$170; Merit stu encycl set w/bkcse, \$75; dryer, \$40. Jackie, x3-5116.

TV, 12" b&w, gd cond, \$35; wd desk w/drwrs, \$15; nite lamp, \$21; bedside tbl, \$4; bed frame & box spr, \$12; teleinstamatic camera, \$19. Call 661-7794, evgs.

Free proceedings of IRE 1959-63, also NEREM Record, 1960-63 & 1965-69. Paul, x3-4211.

V reas, gd cond beds, crib, bureau, nite tbls, tbl & 6 chrs, conv sofa, bkcses, desks, lamps, sm appl & dishes. Jacob, x3-6081.

Sm 4 drwr desk, \$30. Nancy Burke, 522-6700.

cond, \$15; lg 6 drwr chest, \$25. Lou, 547-8665, aft

Pioneer SA7500 amp, Studiocraft 440 spkrs, 100 W/ch, BIC 940 trntbl w/base, cover, crtrdg, \$650; dbl & sgl bed frames w/hd & foot brds, \$25 & \$15. Call 354-3713, evgs, kp try.

Sgl bed w/box spr & matt, perf cond, \$40; lg bureau, \$24; avail aft 8/15, Call 494-9220, Tang 9A. Refrig, GE frostfree, 9 mos, still under wrnty, 20.8 cu ft, \$350; Wstghse Mobilaire 6000 BTU AC, 7.5 amps, 3 yrs, \$40 or best. Call 489-1623, aft 6.

Child bike, gd cond, banana seat, \$10. x3-2916. Banjo, \$50. Scott, x3-6849, lve name & nmbr.

Couch, gd cond, converts into 2 beds, best. Wendy, x3-7402.

Sm desk w/6 drwrs, v gd cond, \$10; sgl bed, box s & frame, gd cond, \$10; b nw 21" elec fan, \$14. x

Conv sofa, matt & box spr; crib; youth bed; tbl & 6 chrs; lvg cntry, must sell everything. Nechama,

HP 45 calc, exc cond, hard case, soft cover, transformer, matt & instruction book, \$115 or best. Jimmy, x5-6277 Dorm.

Aquar, 30 gal w/std, stainless stl hood w/fluor light, Dynaflow 425 fltr & htr. \$60. Charlie, x7133 Linc.

Zenith 19" b&w TV, \$50; m 3 spd bike, yr, w/bskt, \$45; Realistic 10 band port radio, \$45. Call 492-3180, aft 5.

Hichr, \$30; child dressing tbl, \$25; plastic bathtub, \$3; crib, \$80; sandbox, \$10. x8-4095 Draper.

Ruby laser, Q switched, 125 MW, 20 NS pulse, by Hughes Co, best. x8-3931 Draper, bef 5.

Philips foot-brake bike; Wilson tennis rckt & squash rckt; Kodak super 8 proj; all gd cond; pressure cooker & Zenith floor radio, circa 1939, fair cond; all best. Linda Kopacz, x3-4484.

Must sell spinet piano, lt brn, \$250 or best. Rich

Upright piano, best over \$200. Fred, x3-7220.

B nw Hammond Regency organ mdl 4072, twin keybrds, nw \$4,800, \$3,300. Call 734-0231.

Mrbl top coffee tbl & mtch end tbls, \$75 or best; K

Patriots football tckts, pre-season & reg season, exc end zone seats. John, x8-2006 Draper.

Fedders 8000 BTU AC, 7.5 amps, \$100; buy 2 Co cord snows, 4 ply, F70x14, 3K, get 3 Delta F78x14 free; plants; blu 9x12 rug; blu cube tbl, 30x30x14" elec Sunbeam htr w/thermo; blu, brn crtns; must sell. Fred, x5-8637 Dorm, evgs.

Blonde mahog BR set, xtra long dbl bed, 66" dresser w/mirror, chest, 2 nite tbls, gd cond, \$285. Call 643-0758.

Mirror w/wd frame, 21x15", exc cond, \$5; stl string guitar, \$5. Madeline, x3-3636.

LR set: reg sofa w/mtch chr, grn w/brn & gold, 2 end tbls, mtch coffee tbl, lamps w/shades, \$325, no checks. Eurene, x8-3501 Draper.

Sears Craftsman carbide-tipped 7" adjustable dado, lk nw, ½ price, \$17.50. Paul Drouilhet, x401

GE 23" b&w TV, uhf, vhf, \$45. JK, x8-3977 Draper.

'74 IBM Selec typwrtr, 11" carriage, 10 pitch, uses fabric ribbon, exc cond. Judy, x3-4076.

China for 8, Bellflower design, nw, \$40; Airequipt mtl slide magazines, used, \$1/ea; Argus 300 mdl 38 slide proj, old, \$10; Bell & Howell slide cube proj, mdl 991, autofocus, lk nw, \$100. Stanley Hirischi,

Canon FTQL w/Canon FL lenses: 55mm fl.2, 135mm f2.5, 28mm f3.5, 19mm f3.5, all F stop, all but 19mm have protect fitr; booster mtr; Canon exterior tube set; Watson film loader; \$300. Feroline, x3-4914.

Fluor lamp ballasts for (2) 40 W rapid start bulbs, compl wired to socketa/side supports, \$6/ea. Mitch, 547-8219, evgs.

Sofa, mod 2 seater, grays & brns, \$200 or best. x3-

Super firm Sealy Posturepedic matt, mtch box spr & frame, almost b nw, \$150; Simmons full sz matt & box spr, gd cond, \$60. Craig, x3-6893.

GE 10 cu ft refrig, gd cond, \$35; tan couch, old & comf, \$25. Harry, x3-6061.

Peugeot UO8 10 spd bike, 21" m frame, lk nw cond, sells for \$160, sacrifice \$100. Call 923-1826, evgs. Plants: lvg, must sell spider plants, coleus, strawberry begonia, Swedish ivy, etc, 50¢ & up. John, x3-1836.

GE deluxe Toast-R-Oven, exc cond, \$15; Nelco sew mach, \$10. Call 492-2806.

Dbl cylinder door lock; ultra-hi security padlock; 2 sm Kenwood bkshlf spkrs; prices nego. x5-6251 Dorm.

Twin sz Ethan Allen bed compl w/matt & box spr,

Hermes Rocket typwrtr, \$30; mahog bureau, \$40; standing lamp, \$10. Peter, x3-5857.

Fluor drafting type lamp; colorful crocheted blanket. Myron, x3-2416, lve msg 9-4.

Almost nw Centura IV bkshlf spkrs, \$35; wd desk w/7 drwrs, \$20. Call 484-5661, evgs. Must sell by 8/15: hide-a-bed sofa, \$30; 8x12' yel patterned rug, \$20; 2 bkcses, 2x3', \$13/ea; other sm items. Call 864-9682.

Nice rug, \$10; desk, \$7; bkshlf, \$7; baby carriage, \$10; playpen, \$5; lawn mower, \$10; rowing exercise mach, \$7; 6' ladder, \$5; K tbl, \$3; typwrtr, \$10.

Call 484-3080. (47) 20 lb bags loose fill, non-itchy attic insulation,

ea covers 25 sq ft at 3" depth, \$2/ea or make offer on all. Robin, 646-9333. Packing boxes; printout binders; magnetic tap

racks; stl shelving for computer cards or printout; Wilson stl T2000 tennis rckt. Call 547-3336.

Antique wd railway station bench, \$12; shredded polyeurethane foam for stuffing, 7 lbs, \$3.50. David, x3-6742.

Quaker State 10W/30 motor oil, 18 qts, 50¢/qt; Hoover cannister vac w/attach, \$10: Proctor Silex Hoover cannister vac w/attach, \$10; Proctor Silex steam spray iron, \$8; sgl bed, matt & box spr, \$20; tbl & lamp, \$15. x3-2636.

F 10 spd bike w/Kryptonite, \$55; 6 drwr dresser,

Brn sofabed, \$25; 4x6' org/brn rya rug, nds cleaning, \$20; K chrs, \$3/ea. David, x3-6433.

Sears port stereo, gd cond, \$35; k sz matt, 2 yrs, \$30. Jackie, x3-1973.

Couch w/2 chrs. \$65: dbl bed. \$25: dinette set w/4 chrs, \$40; pole lamp, \$5; cabinets sew mach, \$35; 10 spd bike, \$60; Ludwig blu sparkle, 4 drum, cymbals, etc, \$300; SC elec typwtr; appl; skis; bkcses; all cheap. Holly, 935-1406, Woburn.

Fedders 7000 BTU AC, \$120. Pat, x3-3106.

Carpets: 9x12 off wht, \$40; 12x15 blu & grn wool shag, \$50; grn crtns; 3 spd fan. Ron, x3-6963, 10am

(2) Hallicrafters SX117 rcvrs, exc cond, accurately calibrated, \$200/ea or best; used oscilloscopes, gd for hobbyists, HAM's, etc, best. x3-5815.

Ovation acoustic 6 str guitar, b nw, \$300 or best. Howard Boles, 494-9162.

Reuphol, refinished antique barber's chr, \$75; f 10 spd Atala, exc cond, many xtras, \$100. Elizabeth,

Xenon strobe for Minox camera, \$8; Swinger camera, \$8; bar lite, \$2; cacti, aloes, other plants, \$12-75e; f orchid leath jckt, sz 9, \$10; asst sashes, 50e/ea. x3-1332.

Chickering & Sons baby grand piano, \$1,900; dining tbl & 4 chrs, \$40; desk & chr w/attach pencil sharpener, \$25; lamps, \$5/ea. Call 494-0329, aft 6pm or wknds. Lk nw furn from beaut Bos condo: teak DR set

wileaf, 4 chrs, formica-protect top, 47x36", \$90; 4 drwr mpl chest, mtch wall mirror, exc cond, \$85; Zenith b&w TV w/std, 16", \$40; yel ginger jar lamp w/wht shade, \$15. x3-3837.

Lg old sofa, interesting shape, webbing sound but nds uphol, \$20. Don, x8-1441 Draper.

Two cherry hdbrds & frames, \$100: w/box spr & hair matt \$250, x3-1876 Pr C78x14 snows & whls, \$40; formica desk, 42x24,

\$40; tbl sew mach, \$40; humidifier, \$25; casement AC, \$70; Wstghse AC, \$50; lamps, \$10-\$15. Eric, Almost b nw dbl bed matt, orig \$55, \$40 or best.

Irving, x3-4899, lve msg.

Refrig, 14 cu ft, \$100; qn sz hide-a-bed, \$125; washer, \$225; dryer, \$150; workbench w/stool, \$50. John, x8-3932 Draper.

Plants: basil, Swedish ivy, coleus, etc, 75¢-\$5; Rossignol 205 cm skis, \$8; 6 butane crtrdgs for camping stove, were \$6, \$3; Ann Taylor sz 8 jckt, worn 2X, was \$48, \$18; big sack potting soil, 60¢; Neiman Marcus 8N hi-heel laced shoes, worn 2X, \$3. Bar-

Lg Sears AC, cools 2-3 rms, \$200. Steve, x3-1639.

Vehicles

65 VW beetle, gd run cond, nw brakes, muff, etc,

'66 Buick Skylark, hrdtp, \$250. Call 648-6309

'66 VW-bug, \$600; '69 VW bug, \$400 or best. Call

'66 Dodge Dart, 2 dr, radio, auto, slant 6 eng, 2 nw tires, \$400 or best. Robert Richardson, x181-56-104

'66 Chevy Imp, gd cond, snows, runs gd, avail 8/25, \$295. x3-7255.

'66 Olds Cutlass, p st, auto, runs well, \$375. x3-3148. aft 8/15.

'67 VW beetle, 4 spd, gd cond, \$425 or best. x8-4373 '68 Rambler Amer, 4 dr, 6 cyl, auto, p st, exc cond, no rust, must sell 8/12, \$500 or best; also dishwasher; hirise sofabed. Call, 494-0368.

'68 Ford Gal, eng & body gd cond, ask \$425. David, x3-2186

'68 Dart, 4 dr, less 50 K, 6 cyl, blu, cln, gd conoxcept brakes, \$550 or best. Call 494-8461, aft 6:30pm.

'68 Austin America, runs well, lvg cntry, \$450. Goesta, x3-7301.

'68 Mustang, 80 K, gd cond, \$400; also cassette tape deck, Pioneer CIF 2121, 4 mos, 2 mics, \$120. x3-6898.

'68 VW, sunrf, gd run cond, \$275. Merry, x3-7379. '69 Pontiac Firebird, 59 K, std shift, radials, p st & br, maintained gd cond, \$700. Rintaro, x3-3494. '69 Mercedes 280 SL, 63 K, 2 tops, 4 radial snows,

69 Opel Rallye, 60 K, std, 2 dr sed, eng has recent gaskets, nw clutch, ask \$500. Len, x3-5384.

amfm, 4 spd, \$7,200. x3-3208.

'69 Jaguar XKE 2 plus 2 cpe, auto, AC, p st, amfm, Michelin radials, nw sable brn paint, 56 K, \$4,200. Call 933-5176, evgs only.

'69 Cortina GT, runs but nds work, \$250, Lew, x3-

'69 VW beetle, 2nd eng, nw clutch, brakes, muff & trans, \$800. Santi, x3-3826.

'69 Austin American, auto, amfm, gd body & inside, nds repairs, \$100 or best. Call 876-6939, evgs. '70 Chevy Imp Cstm, 2 dr hdtp, tilt whl, 61 K, best reas. x3-2772

'70 Dodge Polara, \$800 or best. Call 965-0747.

'70 Toyota Mark II, 4 dr., auto, nw guaranteed trans, nw tires & snows, nw batt, exc cond, \$1,000.x3-7289.

'71 Ford Torino GT, exc cond. best. Call 232-7197. '71 Toyota Corona, 34 K, sound cond, radials, am radio, \$1,250. John, x3-5933.

'71 Dodge Polara, auto, p st & br, radio, fac AC, v Gd cond, \$1,100 or best. Call 494-0367, evgs.

'71 Volvo 142E, gold, leath seats, auto, fuel injection, runs beaut, \$1,600. x3-6663. '71 Ford LTD, 59 K, gd cond, p st & br, reas price.

'71 Ply Sat, 84 K, gd mech cond, \$1,000 or best. '72 Datsun pick-up, step bumper, Calif mirrors,

amfm, moving overseas, \$1,500. x7880 Linc '72 BMW 2002, maroon, 4 nw Semperit 401 radials, nw exh sys, 42 K, \$3,000. Whitney, x3-5540.

'72 Ford Pinto Runabout, 4 spd trans, 56 K, gd cond, many nw parts, 2 snows, \$990. Akashi, x3-

'73 Chevy Vega GT, gd run cond, lt blu, auto, radials, am radio, \$1,000 or best. x3-5344.

'73 Lotus Europa, 30 K, stainless exh pipe, shop manuals, elec block htr, car cover, amfm stereo, meticulously maintained, \$6,500. Frank, x3-1733. '73 Mazda, org cpe, RX3, 11 K, best. x3-6046.

'74 Fiat 128, 4 dr, 47 K, slight rust spots, gd mileage, \$1,300. x343 Linc '74 Saab wgnback, slvr, 41 K, \$4,250. Call 232-

'74 Ply Gold Duster, slant 6, auto, p st, vinyl top, amfm radio, only 20 K, exc cond, \$2,795 or best Jack, x7303 Linc.

'74 Toyota Land Cruiser, 38 K, gd cond, amfm, lock-out hubs, nw 6 ply stl belt tires, trlr hitch, gas can. Annette, x5503 Linc.

'66 BSA 650 K&Q, seats & lites, nw clutch & Konis, best. Jim, x8-3235 Draper.

'72 R5C Yamaha 350, chn & master lock, hlmt, Mulholland Boge rear shocks, \$350. Call 782-7689

Housing

Belmont, furn rms w/K priv in lovely hse w/grdn, 1 sgl 35/wk, 1 very lg dbl 25/wk/ea. Call 484-6833,

Bos. Beac Hill, lg 2 BR apt, comf, bright & qt, conv loc nr T, shops, 15 min walk MIT, avail immed, \$215. David, x3-6742.

Burl, yng furn hse, exc nbrhd, 3 BR, frpl LR, well equip eat-in K, DR, lg yard, Indry, garage, 30 min MIT, avail 9/10, \$400 unhtd. Call 272-3193.

Camb, v nice studio sub avail 9/1, Mt Auburn St, H Sq, \$136 incl ht. Vicky, x3-3364, 9-11am. Camb, lg, cln, conv 2 BR apt, wd floors & hi ceilings, sub 8/15-11/15 or rmmate thru fall term. Call

Camb, he off Brattle St avail to non-smoking col 8/20-9/4 in rtn for care of animals & plants. David Wilson, x3-5121.

Camb, nr Porter Sq, 5 rm apt, 2 Br, 3rd fl, must rent for longer than yr, cpls pref, \$300 incl all util & ht, sec dept req. Paul, x3-6095. Camb, 2 BR apt, Huron Ave nr Fresh Pond, LR,

DR, nwly remodeled, conv to shops, \$300 + ht. x8-Camb, attractive 3 rm furn apt, priv B, incl ht & util, 3rd fl, on T, avail 9/1. x3-7138.

Lex, 8 rm 4 BR colonial, $1\frac{1}{2}$ B, H Sq bus, lg mod eat-in K, fam rm w/sliding door to $\frac{1}{2}$ acre yard, \$61,900. x3-5553. Lynnfield, immac splt entry, 3-4 BR, 2 B, lg LR & fam rm, 2 frpl, screened porch, 2 car garage, qt street, \$69,900. Tim, x8-1187 Draper.

Som. 4 rm furn apt. Call 643-6075. Woburn, west side, furn rm in priv home for f, B, refs req, sec dept, call aft 8/18. Call 933-4738, aft

Winchester, lux BR apt, AC, ww, swim pool, balc avail 9/1 for yr, \$290 incl pkg, elec. George, 729

Hse w/3 furn apts, nr Memorial Dr, low 30's. Call NH, comf yr-rnd 3 BR hse on priv spring fed lake.

55 min MIT, sail, skate, xcntry ski, ask \$35,500, wl consider renting. x3-4923. Sum rental, 6 rm 3 BR sum cottage w/sunporch,

deck, at Pemberton end of Hull, ideal for fam, no sgls, avail end Aug or Sept, \$150/wk. S. Katsis, x8-3453 Draper.

Cottage, Mt. Sunapee, Goshen, NH, rough it reasonably, Aug. Tom, x613 Linc.

New London area of NH, Hexagon, sum, winter retreat, pond for fishing, swimming, brook, elec K, 3 Br, frpl, 6 acres, \$45,000. Call 734-9715.

Animals

Free to gd home, 2 frisky kittens, tiger-calico mix, also mthr cat, long-haired calico; also m Fugi Sport 10 spd bike, exc cond, \$250 nw, \$175 or best. Lucy, x8-4478 Draper.

Free all blk pups, 6 wks. Noreen, x8-2718 Draper AKC wire fox terrier pups, champ sired, whelped 5/21. Bill Taylor, x7765 Linc.

Old Eng sheepdog pup, m, 8 wks, AKC reg, champ sire, Helen, x3-1880.

Beaut long hair all-blk cat, shy but frndly, to gd home. Mark, x3-3242.

Eng setter pups, reg, w/shots, gd pet & hunter. x3-

Wanted

Warm, loving persons to care for infants & toddlers in your home. Application & info, Child Care Office, x3-1592, Rm 4-144.

Old communications of ACM, '65-'74. Eva, x3-

Bumper type bike rack, reas; clamp on type trlr hitch for '73 Dart. Chris, x3-2375.

Hessitter(s) to live in spac suburban hee close to bus line in rtn for care of animals & plants, Aug 16-Sept 1. x3-2916. Cash for film soundtrack recordings, pre-1970, gd

cond. Ron, x3-6740. Fully furn apt, 2 BR or more for 3-4 mos, start 9/1, nr MIT, for visit fac w/sm child. Fredrich Heimlick, x3-5822.

Used washer & dryer. Cathy, x3-2030.

Looking for clarinetist to accompany violinist, short melodic pieces, no sweat, just fun. Margaret, x3-1722.

F 3 or 5 spd bike, fair-gd cond, or 26x1.75 tires w/or w/out tubes. Bethellen, x8-1261 Draper. Nd someone w/van or sm truck to help me move

from Bos to New Haven, Sept 6 or nr, payment nego. Nancy, x3-1605. Grader for freshman papers, BA in Eng, grad work pref, work at home, \$3/hr. C. Stevenson, 723-7209.

Subjects for speech intelligibility experiment, make \$3 for less than 1 hr, must be native Eng speaker w/normal hearing, be able to perform adequately in demanding exper, sev sessions scheduled in afts thru 8/22. Yvonne Perlmutter

Fltr & pump sys for 18' diam above ground pool. Abigail, x5778 Linc.

Microscope, \$300. Call 661-3069

Widowed prof interested in grad stu or stu cpl to live in, hsehold duties, 9 yr old daughter, in exch for rm & brd, priv accomodations. x3-7167.

Used piano, upright or spinet. Steve, x3-6805

Prof cpl seek hassitting or lite caretaker duties in exch for rent, beg Aug or Sept, refs. x3-5543.

Roommates

F, 2 seek 2 more for 4 BR apt nr Cent Sq, avail 9/1, furn rms, qt str, porch, lg K, no pets or smokers, reas rent. Call 267-5448, evgs.

Rmmates, 2, for own BR in 5 BR hse nr Cent Sq, furn, non-smokers, 24+ pref, \$135 incl ht & util. Bonny, x3-3621.

F rmmate for 2 BR Saugus apt, pool, ht & hot wtr, avail now, \$135. x3-2279

F, 25+, share lg apt in Nwtn, own BR, pkg, \$125 incl util. Clara-Mae, x3-7060.

Camb, share 7 rm apt w/2 f grad stus, 3 BR, study, LR, DR, K, B, avail 9/1, \$137 incl ht. Call 491. F nded to share Concord Ave apt w/2 others, 2 sun

porches, LR, study, pref grad stu, no smoking, ne pets, \$114. Chris, x3-5324. Seek f 25+ to share beaut 2 BR apt nr H Law Sch,

compl furn, Sept-June, \$120 incl ht. x3-6692

Rmmate for mod apt, upstrs & down, own rm, ww, mod B, \$30/wk incl util & pool. John, x3-4489. Rmmate to share beaut 4 BR Wtrtwn has w/3 m

grad stu or prof pref, nr T, no pets or cigs, \$105 util. Call 923-1511. Camb, share spac mod BR apt w/f, btwn H & Cent Sq, 20th fl hirise, xtra lg balc, panoramic Bos vidavail 9/1, \$155 incl util. x3-6978.

Carpools

Daily ride nded, Wakefield to MIT, wl pay. Irene,

Ride to Lowell for fall sem, evg school. Kris, x3-

Nd ride to Beverly, Mass every Thurs, 9/9-10/28, lvg MIT btwn 5 & 6pm, wl pay. Holly, x3-4160.

Miscellaneous

French & Arabic speaking mature f wl babysit & do hsework, salary & living arrangements nego. Call 489-2387

theses, reports, IBM Correct Sel. Typing, fast & accurate, reas, theses & reports Martha, 643-1244, aft 6.

WI type theses, manu, etc on IBM Selec. Carol, x3-

financial reports for internal and sponsoring Candidates must be sufficiently ex agency use. agency use. Candidates must be sufficiently ex-perienced with budget preparation and expen-diture analysis to handle the needs of a growing and changing laboratory, and have the ability to communicate financial information to others. Familiarity with MIT accounting procedures helpful. D76-107. Admin. Staff, Media Production Manager, in the MIT Press, to have complete responsibility for scheduling, cost evaluation, manufacturing procurement for all new Press books and some jour-

nals. Duties include cost estimating and updating purchasing of typesetting, paper, printing, binding and other materials and services. Will supervise production personnel, suppliers; evaluate alter-native production procedures; monitor all aspects of production-in-process including costs. Intensive experience in book manufacturing (preferably 3-4 years), organizing skills as well as creative ability in systems design, scheduling and problem solving required. Selected individual will be involved in in-stallation of in-house computer typesetting operation, A76-30 (8/11).

(research and general accounts); handle all person nel matters for biweekly employees; arrange for space, furniture and equipment; prepare documen-tation to support academic appointment process. Excellent administrative skills, facility with budgets and accounting procedures, as well as related experience required. MIT experience

preferred. A76-31 (8/11). Sponsored Research Staff in the Clinical Research

Admin. Staff, Assistant Dean for Student Affairs/ Admin. Stalf, Assistant Dean for Student Affairs, Counselor to counsel undergraduate and graduate students about academic and personal matters to support the academic and personal well-being of women students, and to make the MIT environ-ment more attractive and supportive of women students. Will work cooperatively with faculty, staff, and students in broad areas of student affairs and advectional programs. Will head the and educational programs. Will handle withdrawals, readmissions, excused exam absences, etc. Must have a master's degree, or equivalent, one or more year's experience in a student-oriented job, and at least one year's counseling experience. Human relations and com municative skills, sensitivity are necessary. Clinical skills and training are not required. Must have a commitment to professional advancement women, familiarity with science and engin

operating systems or subsystems. Initial assignment will be to convert a large subsystem to PL/1 on the IBM 370/168. Applicants must be proficient in PL/1 and have experience on an IBM 360 or 370 At least 3-5 years of system design and experience as well as a Bachelors degree or equivalent education/experience combination are necessary. A76-25 (7/28).

Academic Staff, Asst. Radiation Protection Officer Academic Staff, Asst. Radiation Protection Officer in Medical Dept. Environmental Medical Service to assist in various phases of radiation protection program, especially the programs for lasers and for equoducing ionizing radiation. Duties include evaluation of radiation of hazards and methods of control, and lecturing on related subjects. Masters degree in Radiological Health or equivalent, written and oral communication skill required. Training in non-ionizing radiation protection desirable. C76-11 (7/28).

Sponsored Research Staff, Temporary, Venezuela Manpower Economist, in the Center for Policy Alternatives to examine supply and demand of technical power in Venezuela and to develop alternative policies for an important scholarship for mulation. Will have responsibility of day-to-day activity of project and supervision of participants

POSITIONS AVAILABLE This list includes all non-academic jobs currentlh

available on the MIT campus. Duplicate lists are posted on the Women's Kiosk in Building 7, outside the offices of the Special Assistants for and Work (10-215) and Minority Affairs (10-211) and work (10-215) and minority Ajjar's (10-211), and in the Personnel Office (E19-239). DURING THE SUMMER MONTHS, AN INTERIM LISTING OF NEW POSITIONS WILL BE POSTED AT THE ABOVE LOCATIONS ON THE WEDNESDAYS WHEN TECH TALK IS NOT PUBLISHED (AUGUST 18, SEPTEMBER Personnel Interviewers will refer any qualified applicants on all biweekly jobs as soon as possible after their receipt in Personnel.

Persons who are NOT MIT employees should call the Personnel Office on extension 3-4251. Employees at the Institute should continue to contact their Personnel Offices to apply for positions

for which they feel they qualify

(Secretary — Susan Bracht)

Virginia Bishop

Dick Higham 3-4278 3-1594 3-1595 Carolyn Scheer (Secretary — Sally Erickson)

3-1591

Mike Pari 3-4266 Ken Hewitt (Secretary -3-4267 - Joy Dukowitz) Sally Hansen 3-4275 Lewis Redding Richard Cerrato 3-4269

Sponsored Research Staff, Operations and Instrumentation Manager for National Magnet Lab. nuclear magnetic resonance facility: Will be responsible for operation and maintenar high field, high resolution nuclear of three spectrometers; consult with and train research scientists using facility; develop new techniques and improve instrumentation. Position allows time for personal and collaborative research. PhD in chemistry, physics, biology or related field, experience and interest in experimental and theoretical aspects of nuclear magnetic resonance required. Applicants should also have expertise in VHF/UHF instrumentation, digital electronics and determine the properties of th data processing techniques. Position begins 10/1/76. D76-140 (8/11).

ing Activities: examine, define and evaluate feasibility of short and long term planning projects (i.e. feasibility of developing prepaid health program for students, organization of primary care teams; establishment of a pharmacy). Masters degree in Public Health or Management of Health Sciences required. Work experience in health services preferred. C76-12 (8/11). in primary ponsored Research Staff, Temporary, Systems Programmer in the Dynamic Modeling group, Lab for Computer Science. Will be responsible for the redesign and implementation of some parts of the data base section of a DMS message system. Knowledge of Dynamic Modeling system required. Temporary for 6 months. D76-141 (8/11).

Academic Staff, Planner, in the Medical Depart-

ment to provide support for Department's Plann

Sponsored Research Staff, temporary, to do post-doctoral research in the Research Laboratory of Electronics, working on high precision measure-ments of interaction of radiation with matter. Experience involve highly stabilized cw dye lasers reuired. Ph.D. in Physics or equivalent. Temp. for 10 months. D76-142 (8/11).

Sponsored Research Staff, Cost Analyst, in the Energy Lab to prepare budget estimates for research proposals; perform monthly analyses of

account expenditures, commitments and projected costs; conduct budget planning activities; prepare

careers and the ability to serve as a role model for women students. A76-29 (7/28). Admin. Staff, Systems Programmer II, in the Programming Development Office of Information Processing Services to work on the design implementation and documentation of changes to

(Continued on page 4)

Tech Talk, August 11, 1976, Page 3

(Continued from page 3)

Position requires practical experience in manpower analysis by econometric modeling techniques; economic development background; fluent written and spoken Spanish. Candidates should be willing to travel to Venezuela for extended periods. Position begins 10/1/76 and is temporary for apprimately one year. D76-129 (7/28).

Sponsored Research Staff, Research Analyst, in Center for Policy Alternatives to conduct research on manpower and energy policy issues through a multidisciplinary academic center studying varied policy areas (manpower, energy, industrial development, and others). Aill carry out analysis of government regional development policy. Practical experience in systems and economic analysis, hackground in energy policy, manpower analysis, background in energy policy, manpower analysis, R&D policy and modeling techniques required. Fluency in written and spoken French also necessary as is familiarity with European customs and operations methods. Position begins 10/1/76. D76-131 (7/28).

Sponsored Research Staff, Research Analyst, in the Center for Policy Alternatives, a mul-itidisciplinary center conducting research and policy analysis in areas such as environmental and ocean law, science technology and public policy, ocean law, science technology and public policy, manpower training. Will work under supervision on a variety of sponsored projects. Bachelors, masters, doctorate and/or J.D. degrees, interest and experience in the subject areas above as well as in occupational health and safety, economic analysis of regulatory policy and in drafting legislation are necessary. Experience with your! tion are necessary. Experience with gov't regulatory agencies, foreign language skills desirable. Positions begin in Sept or Oct, 1976, and the period of appointment is contingent upon sponsored funding. D76-136, D76-137, D76-138 (7/28).

Sponsored Research Staff, in the Center for Cancer Sponsored Research Staff, in the Center for Cancer Research to assist in biological experiments with RNA tumor viruses. Half or more of work will be with cells in culture: maintain cell lines; perform biochemical assays and specialized techniques with fluorescence microscopy. Bachelors or masters degree in biology, biochemistry or chemistry required. Experience with tissue culture preferred but not essential. D76-135 (7/28).

Sponsored Research Staff, Technical Assistant, to work in new Center for Cancer Research
Laboratory involved in Cell biology and
biochemistry research centering on aspects of cell
differentiation and transformation; maintain cell
lines in tissue culture; analyze protein mixtures by gel electrophoresis; protein purification; some enzyme assays and immunological work. Will also have partial responsibility for organization and management of laboratory. Bachelors degree in biology, chemistry, or biochemistry required. Research laboratory experience preferred. D76-101.

Administrative Assistant Exempt in the Industrial Liaison Program to handle various duties related to financial aspects of the program: prépare budget projections; monitor expendiutres against budgets and billing status of member companies; invoice companies; review and reconcile monthly invoice companies; review and reconcile monthly statements; supervise preparation and/or prepare statistical and financial reports; act as liaison with Institute administrative offices (Physical Plant, Safety Office, etc.). Accounting experience and/or formal training, typing skill required. E76-25

Admin. Asst., Exempt, in the Undergraduate Research Opportunities Program (UROP) to per-form a variety of administrative duties which include assuming complete responsibility for the Program's directory (material solicitation, design rrogram's directory (material solicitation, design and printing arrangements); arranging of large meetings, symposia, conferences, acting as liaison with a group of company participants (writing project description, resolving related problems); counseling students in program policy and procedures. Will also handle general office administration (space, physical plant arrangements) and some secretarial/clerical duties. Administrative ability, written and spoken communication skills necessary. Applicants must be able to work as part of a team and have basic clerical ability. E76-27 (8/11).

Exempt, Area Supervisor, in the Dining Service to have responsibility for serving area: ensure that food tables (ie. dessert, sandwich) are set up before meals; maintain flow of food and utensils during meals; upervise pantry employees, oversee clean-ing and portion control. Technicial knowledge of food production, ability to assign work and to maintain a service oriented operation required. Fluent English is also necessary. E76-23 (7/28).

Exempt, Asst. Food Production Supervisor, Food Exempt, Asst. Tood Production Supervisor, Food Service to assist Supervisor in all areas of responsibility including daily production, inventory and quality control, purchasing and sanitation program. Must be able to assume full respon-sibility in absence of Supervisor. Degree or equivalent experience in food production required as well as technical knowledge in menu planning, food production, quality control, food related purchasing. Must be able to work irregular hours and weekends and to train other personnel. E76-24

Technical Assistant V in Medical Departm Laboratory of Animal Medicine will iden Laboratory of Animal Medicine will identify bacteria, fungi and mycoplasma in specimens and handle other related diagnostic chores. Bachelors degree in microbiology, knowledge of microorganisms present in animals, 2 years related apprehens and ability to perform all biologic, chemical tests to complete above analyses are necessary. B76-310 (7/28).

Technical Asst. IV. (full-time through 8/31, parttime beginning approx. 9/1/76.) in Psychology Dept. to test children and adults; prepare stimuli; analyze data. Applicants should have experience in working with child subjects, have a knowledge of computer programming and photography, and have a car. Position will be full time through approximately 8/31/76; then will be shared with another person. Bachelors or masters degree in Psychology preferred. B76-297 (7/28).

Admin. Asst. V in the Child Care Office to provide pport for all fiscal p related to Office's programs: prepare and process payroll, benefits, tax materials; monitor budgets; collect tuition; handle insurance claims; Administer program application process: determine policies and procedures to eligibility explain engionity; explain policies and procedures to parents; prepare statistics. Research and collect information on other local child care resources; as-sist parents in defining needs and locating services. Will also perform general secretarial and office support duties. Administrative and accounting exence, ability to work with constant interrup, , and to deal sensitively with student, faculty employee families required. Foreign languages and employee families r helpful. B76-375 (8/11).

Sr. Secretary V in Humanities Dept. Foreign Languages and Literatures Section to have overall responsibility for organizing and completing section's secretarial work: maintain records; provide information on procedures, etc. to students; prepare class materials for French and German ruage and literature cours es: coordinate work of language and literature courses; coordinate work of part-time secretary. Excellent typing and organization skills as well as previous secretarial experience necessary. A command of English language, ability to read and type German, and some familiarity with French also necessary. B76-351 (8/11).

Secretary IV to four Physics Dept. Faculty members: type technical reports; maintain research budget records; arrange travel and ap-pointments, handle other general secretarial duties as necessary. Technical typing skill, the ability to follow-through on assignments independently and with accuracy are required. Three to five years progressively responsible secretarial experience preferred. B76-256.

Secretary IV to three faculty members in the Chemistry Department to answer phones; type corecretary IV to three faculty members in the respondence and manuscripts; arrange travel; maintain files. Two to three years secretarial experience, ability to exercise initiative and judgement required. B76-208.

Secretary IV, part-time to faculty and staff members in Meteorology Department: compose and type correspondence; type manuscripts including technical material; arrange travel; monitor accounts; maintain small library; assist in library research. Good typing and organization skills, command of English language required. College training and an interest in science preferred. 20 hrs/wk. 1pm-5pm, Mon.-Fri. B76-344 (8/11).

Secretary IV in Urban Studies and Planning head office to type correspondence and manuscripts, arrange appointments and travel; coordinate major departmental meetings; arran coordinate major departmental meetings; arrange luncheon meetings with caterer; sort and dis-tribute mail; handle other general secretarial duties as necessary including assisting with departmental typing assignments in peak periods. Previous secretarial experience, excellent typing and machine transcription skill required. B76-347 (8/11).

Secretary IV to two Industrial Liaison Officers to type correspondence, maintain statistics and files member companies serviced by the Program Will deal directly with representatives of member companies: provide information on symposis; ar-range travel; fill requests for publications. Good typing, experience in the use of dictation equip-ment required. Must also be able to deal effectively with member company personnel. MIT experience and shorthand skill helpful. B76-337 (8/11).

Secretary IV to Center for Space Research group analyzing data from a Satellite. Will type correspondence, reports containing technical material; answer phones; interact with faculty, students, visitors. Typing and organization skill as well as the ability to work independently required.

Secretary IV to buyer, General Purchasing Office Will type correspondence, meeting notes from hand written draft and machine dictation; coordinate appointments; arrange travel; maintain product catalogue files. Position inculdes a large volume of telephone contact within and outside the partitute. Cood treatment of the product of the prod Institute. Good typing and machine dictation skills, ability to set priorities and assume responsibility required. B76-342 (8/11).

Secretary IV, headquarters secretary Humanities department, assist students with procedures; order and schedule filems; type and handle other general secretarial duties. Excellent typing and organization skills, some previous secretarial experience required. MIT or other university experience desirable. B76-327 (8/11).

Secretary IV, part-time, to MIT Program in Technology and Policy and its Chairman in the Dept. of Civil Engineering. Will assist in organization of program and in admissions procedures and other related activities. Must have good typing and organization skills, the ability to work with students and steff and temperatures. dents and staff and to supervise temporary clerical help. MIT experience helpful. 20 hrs/wk. B76-325

Secretary IV, News Office, to handle secretarial duties: maintain biweekly payroll, files, circulation duties: maintain biweekiy payroli, files, circulation lists for publications; type, process news release; serve as personal secretary to director. Will also monitor accounts, process bills; handle purchasing, petty cash. Requires excellent typing, ablity to work under pressure. MIT experience desirable. 37½ hr. work week. B76-328 (7/28).

Secretary IV in the Treasurer's Office to perform general secretarial duties including correspondence typing and composing of routine correspondence; taking and transcribing shorthand; maintaining files, calendars and supplies; organizing meeting materials; reconciling office accounts. Excellent nies, caiendars and supplies; organizing meeting materials; reconciling office accounts. Excellent secretarial skills including shorthand, ability to handle work independently and carry out detailed projects required. Previous office experience also necessary. B76-361 (8/11).

Secretary IV, part-time, in Mathematics to handle general secretarial duties for three faculty members including a volume of technical typing; arrange travel; answer phones; prepare course materials. Good typing skills, ability to type technical material (or willingness to learn) required. Mon. through Fri; 1pm-5pm. B76-363 (8/11).

Secretary IV in Earth and Planetary Science head-quarters will perform secretarial duties for Depart-ment Head and two Staff members: type various material; arrange meetings; receive and assist of-fice visitors. Fast, accurate typing, ability to proofread own work, to set priorites and operate in a very busy office required. B76-373 (8/11).

Secretary IV, temporary, to work with ministrative Assistant in managing office of a large Earth & Planetary Science research group: purchasing; maintaining financial records; making complex travel and shipping arrangements; scheduling facilities use; typing. Ability to handle a number of projects simultaneously, to work under the projects of the state o der pressure and typing skill required. Temp. through 6/30/77. B76-371 (8/11).

Secretary IV to Chemical Engineering Ad-Decretary IV to Chemical Engineering Administrative Officer to handle general secretarial duties which include machine and shorthand transcription; maintenance of contract/grant records; assisting visitors to department. Secretarial experience, ability to organize our more lead of the contract of the Secretarial experience, ability to organize own work load, to deal with representatives of MIT and outside organizations, students and faculty required. Secretarial school training preferred. Position requires occasional overtime. B76-377 (8/11).

Secretary IV to two faculty members in the School of Humanities Technology Study Program (a Chinese history professor and Director of Program). Will perform general secretarial duties including machine transcription; arranging meetings and schedules. Excellent typing and transcribing skills necessary. 2-3 years experience desirable. B76-369 (8/11).

Secretary IV to four faculty members in School of Humanities Technology Studies Program. (Fields include public health policy, political science and others). Will perform general secretarial duties including manuscript typing, transcribing machine dictation. Excellent typing and transcribing skills, a reading knowledge of French required. B76-368

Secretary IV to three Humanities faculty members (American Cultural History, Human Develop-ment, History of Science). Will transcribe machine dictation which occasionally includes technical material; handle other general secretarial duties. Excellent typing and machine transcription skills required. B76-367 (8/11).

Secretary IV to Professor of Political Economy, School of Humanities. Will take and transcribe shorthand; arrange meetings and appointments; monitor research account. Excellent shorthand, typing and general secretarial skills required. B76 366 (8/11).

Production Assistant/Secretary IV, in Campus Information Services to support staff and the produc-tion of MIT Bulletin publications: to monitor accounts; maintain files; type correspondence and reports; handle routine inquiries on Bulletin; reports; name routine induries on Bulletin; proofread; assist in photograph selection and siz-ing; do light editing. Some familiarity with printing design/production, excellent typing English grammar skills, ability to work under pressure and to handle detail with accuracy require 37½ hr/wk. Non-smoking office. B76-365 (8/11).

Secretary IV to a Materials Science and Engineering faculty member: Will be responsible for organization of a new office; handle general secretarial duties: type from shorthand and machine dictation; monitor accounts; assist in preparation of course materials. Excellent secretarial skills including shorthand/ speedwriting, English grammar and proofreading ability necessary. Some MIT experience preferred. B76-311 (7/28).

Secretary IV-V to the Executive Officer, Office of the Provost to the Executive Officer, Office of the Provost to handle general secretarial duties; process requests for special funding; arrange meetings and appointments; maintain project files; reconcile accounts. Candidates must be able to operate IBM Executive typewriter and to work with figures. Secretarial experience is also neces-sary. 40 hr/wk. B76-313 (7/28).

Secretary IV to Academic Staff member in the Center for Policy Alternatives on projects related to environmental law and policy, occupational health and safety and the Law Related Studies Program. Will handle general secretarial duties: organization and typing of reports, proposals; budget preparation; travel arrangements. Excellent typing, shorthand (or willingness to acquire shorthand) skills are required as well as ability to transcribe machine transcription, to set priorities and most independently. Intravel, a white transcribe machine transcription and the control of the contr and work independently. Interest in subject matter important. B76-283 (7/28).

Secretary IV to Economics Department faculty members and administrative officers to handle general secretarial duties which include report and general secretarial duties which include report and manuscript typing, travel arrangements; share in office receptionist duties. Will also perform duties related to graduate admissions process: provide answers to prospective student's inquiries; compose letters independently. Excellent typing, ability to set priorities and carry out work independently required. Shorthand helpful. B76-281.

Secretary IV to Director of Alumni Services to perform secretarial duties supporting reunion classes and departmental reunions: attend meetings; han-dle related mailings; make varied arrangements for large reunions/meetings; maintain files. Will also provide other general secretarial support to direc-tor and his assistant. Excellent secretarial and organization skills, some secretarial experience r quired. MIT experience helpful. B76-314 (7/28) Secretary IV in the Office of the Chairman of the

Corporation to perform a wide variety of clerical and administrative duties, many of which support MIT — community relations activities. Excellent secretarial skills required including shorthand and the ability to type perfect copy. Must be able to handle telephone calls with poise. Excellent secretarial skills, ability to set priorities and work well with people required. B76-317 (7/28).

Secretary IV to the Administrative Officer in the Center for International Studies: will handle a Center for International Studies: will nature a volume of typing (correspondence, proposals, financial reports); maintain files and records; allocate costs to various projects; handle special payment procedures. Will occasionally type correspondence for Center guests. Excellent typing, ability to follow detailed instructions related to accompany approaching and to work with the content of the counting and personnel procedures and to work under pressure required. B76-319 (7/28).

Secretary IV to three Personnel Officers, Office of Personnel Services to maintain interview and other appointment calendars; take accurate messages on large volume of telephone calls, answering que tions of applicants and employees concerning job availability, qualifications, procedures, benefits, etc. Maintain currency of job books, manuals; prepare employee folders for processing through personnel and payroll. Previous secretarial ex-perience, organization and typing skills as well as the ability to deal sensitively with people required. Institute experience helpful. (7/28).B76-330 (8/4).

Secretary III-IV in the Office of Personnel Rela secretary III-IV in the Orlice of resonant relations, Benefits Office. Will handle varied secretarial duites including typing; scheduling meetings; explaining Benefits programs to employees. Will assume responsibility for follow-through on projects. Secretarial experience, ability to deal with people tactfully and to set priorities required. Shorthand helpful. B76-341 (8/11)

Secretary III-IV to Chemical Engineering faculty and research staff members: prepare course materials; type correspondence, reports; arrange travel; maintain records. Excellent technical typing and machine transcription skills, ability to work with a variety of people required. B76-376

Secretary III-IV, part-time, temporary, to assist Industrial Liaison Officer in preparation of Directory of Current Research; coordinate correspondence; maintain files, type and proofread manuscripts. Excellent typing- and organization skills, keypunching ability (or willingness to learn) required. Schedule will vary from 20-40 hrs per week depending on workload. Temp. thru 2/28/77. B76-331 (8/11).

Secretary III in Aeronautics and Astronautics to share secretarial responsibility for four faculty members and a staff member with another secretary: type correspondence, reports (some technical material) fron handwritten draft; handle all other general secretarial duties; answer phones, open and distribute mail. Good typing skills required. Non-smoking office. B76-324 (8/11).

Secretary III to three Sloan School faculty members. Duties will include typing course material and correspondence; arranging travel and hotel reservations; open and distribute mail. Good typing and office procedures skills required. Previous secretarial experience or formal training preferred. B76-334 (8/11).

Secretary-Receptionist III-IV in the Office of the Vice President/Dean of the Graduate School to as receptionist in Graduate School Office: and in-person inquiries regarding procedures, particularly those concerning financial support programs; maintain related files and reference amterials. Will also handle general secretarial duties for two assistant deans: type cor-respondence, some statistical reports, meeting minutes; schedule meetings, arrange travel. Excellent typing skill, ability to deal sensitively with students and other office visitors, and to work with frequent interruptions required. B76-346 (8/11).

Secretary-Clerk Typist III, temporary, in Career Planning and Placement Office to handle typing related to company on-campus recruiting as well as performing related duties: arranging several schedules: simultaneously; setting up coffee for recruiting sessions; interaction with students and company representatives. Accurate typing, ability to answer routine questions independently and to work effectively with a variety of people required. Position is temporary from 9/13/76 through 3/31/77; hours are 8am-4pm. B76-350 (8/11).

Secretary III-IV, part-time, to Biology faculty member and research group. Position includes a substantial amount of typing (some technical), accounting and other office duties. Good typing skill as well as ability to transcribe machine dictation required. 20 hr/wk. B76-302 (7/28).on is temporary from 9/13/76 through 3/31/77; hours are 8am-4pm B76-350 (8/11).

Secretary III, part-time, temporary, to large Earth and Planetary Sciences research group. Will type correspondence, manuscripts (including technical correspondence, manuscripts (including technical material); assist in other general secretarial duties (file; answer phones, etc.). Excellent typing skills, ability to proofread own work and to work with minimal supervison required. Temporary through 6/30/77; 20 hrs/wk. B76-353 (8/11).

Secretary III to Urban Studies and Planning y member: type manuscripts, cor-dence, reports; arrange travel and appoint-file and handle other general secretarial duties. Excellent typing and previous secretarial experience required. B76-374 (8/11).

Secretary III to three faculty members and a larg research group in Earth and Planetary Sciences type manuscripts and correspondence; maintain files; arrange travel and handle other general office procedures. Fast, accurate typing, willingness to learn technical typing, familiarity with office procedures required. B76-372. (8/11). Secretary III to faculty members in Urban Studies and Planning: type manuscripts; arrange travel and appointments; pick up and return library materials. Will occasionally handle secretarial duties for Administrative Officer. Excellent typing, machine transcription skills, previous secretarial experience required. B76-318 (7/28).

Library Gen'l Asst. III, part-time, in the Chemistry Reading Room to assist users with general informa-tion and instruct them in operation of microfilm equipment; process and shelve library material; proofread microfilm; maintain records; type book orders and correspondence; perform other clerical duties as necessary. College training, accuracy with detail required. Some knowledge of chemistry and library experience desirable. 25 hours/wk. B76-352 (8/11).

352 (8/11).

Sr. Library Assistant IV in Barker Engineering (Ibrary Processing Office: will process all incoming monographs, monographic serials, MIT reports and theses in multi-media formats; verify catalog records as necessary; supervise student in card corrections, preliminary filing into card catalogs and theses processing; create bulletin board displays; perform various other related duties. Previous library experience in a cataloging/technical processing department, some graduate library science courses, or bibliographic experience required. College degree preferred. Accurate typing and organization skill also necessary. B76-362 (8/11).

Technical Asst. IV, Ophthalmic Assistant, in Medical Department Eye Clinic to assist two Op-tometrists and 3 Ophthalmologists: take patient histories; measure visual acuity, visual fields; test for color vision; lensometry; instruct patients on removal, insertion and hygiene of contact lenses order lenses and other supplies. Will also handle record keeping, some typing and receptionist duites. Associates Degree from certified Ophthalmic Assistant program required. 37½ hr./wk. B76-356 (8/11).

Accounting Asst. IV in the Joint Center for Urhan Studies to assist in all financial aspects of grant and contract administration: process purchase orders, invoices, personnel and payroll documentation; monitor a large volume of account state ments; compile expense projections; assist in budget preparation, handle a variety of other ac-counting related duties. Bookkeeping training and work experience, preferably in a research center, required. Familiarity with MIT accounting procedures preferred. B76-338 (8/11).

Sr. Clerk IV in Earth and Planetary Sciences head-quarters office: Will have responsibility for student hiring, providing clerical support to Dept. Affir-mative Action Committee, preparation of brochures and other published materials; handle a variety of special projects as necessary. Ability to handle many projects simultaneously, organization skills required. College training, interest in publication production preferred. B76-370 (8/11).

Technical Typist III-IV in Research Laboratory of Electronics Publications Office will handle typing and layout of photo-offset pages and some proofreading. Good typing, spelling, memory skills, ability to work from written and oral instructions and with detail required. Experience with IBM PSM typewriters and mathematics typing helpful. B76-204. Technical Typist III-IV in Research Laboratory of

Clerk III in the Admissions Office will type labels, assist in large mailings and other special projects. Excellent typing, ability to handle detailed work with speed and accuracy required. Non-smoking with speed and accur office. B76-189 (5/26). Clerk III in Accounts Payable section of Comptrol-

lers Act; Office. Will apply discounts to invoices; apply payments to purchase orders; audit invoices; prepare listings of outstanding commitments. Compute totals on processed invoices and prepare records for keypunching. Ability to work with figures as well as proficiency in use of adding the processed invoices and prepare records for keypunching. Ability to work with the profice of the profi figures as well as proficiency in use of adding machine required. B76-335 (8/11).

Senior Clerk III in Registrar's Office to assist with various aspects of student registration process: verify student status; enter related information on keypunch machine; fill transcript requests; file Position includes interaction with students and faculty. Excellent typing required. Keypunchi skill or willingness to learn also necessary. B76-3 (8/11).

Senior Clerk III in Registrar's Office will act as persons (in person and on phone) seeking informa-tion on student registration matters; type correspondence; sort and distribute mail; maintain files. Good typing skills, capacity for detailed work as well as an interest in working with students re-quired. Research experience desirable. B76-349

Sr. Clerk III in the Chemistry Department headquarters. Will assist in various accounting procedures: type correspondence and forms; main-tain records; route mail and documents for signatures. May handle some general receptionist duties. Typing skill, ability to work with groups required. MIT experience helpful. Position begins 9/1/76. B76-332 (8/11).

Sr. Clerk III-IV in the Registrar's Office to assist the Scheduling Officer in class and exam scheduling, maintenance of a master subject directory, and in the registration process. Work with students, faculty and others in assigning facilities for classes and extra-curricular activities; prepare materials for computer runs. Excellent typing skills, aiblity to work with minimal supervision re quired. Keypunching skills desirable. Position requires occasional overtime. B76-333 (8/11).

Clerk-Secretary III for the MIT Quarter Century Club: will make travel reservations for large groups; compose and type routine correspondence; receive and process mail; maintain files, Position requires the ability to interpret gov't agency regulations for various types of flights. Excellent typing and organization skills required. B76-326 (8/11).

Resource Planning to manage and distribute campaign publications for leadership campaign. Will have responsibility for investors. responsibility for inventory control; process. Organization skill, the ability to work independently, accurate typing required. Familiarity with computer printouts and/or keypunching operations desirable. B76-360 (8/11).

Sr. Clerk III. in the Development Office to assist in compiling and recording data to fill information quests of District Officers involved in major fu quests of District Officers involved in major time raising campaign; perform some independent research (i.e. locating addresses, phone numbers, alumni status of potential donors); read and ex-tract relevant information from correspondence for recording on information cards. Organization skills, accuracy in typing and spelling required. B76-359 (8/11).

Sr. Clerk III. Assistant Foundation Analyst, in Sr. Cerk III, Assistant Foundation Analysi, Resource Planning to perform various duties related to maintenance of reference files on foundations: evaluate, code, file correspondence and other informational material; assist in researching background material; type memos and letters; review and code prospect lists for keypunching; answer phone inquiries. Handle other related duties as assigned. High school graduate with accurate typing skill and ability to work with details required. B76-357 (8/11).

Sr. Clerk III. in the Development Office to research names, addresses, titles of corporations and corporate officers; processing of incoming correspondence for posting in files; xeroxing reference material as requested; file various materials. In-dividual must have capability of locating information from various sources and to exercise judgement in selecting information for records. Accuracy with detail is essential. B76-358 (8/11).

Laboratory Aide, hourly, in Center for Cancer Research to collect, wash, rinse and sterilize various types of laboratory glassware for use in ex-periments; use all related equipment; store clean glassware; keep laboratory areas clean for experi-

ments; handle other related duties as required. High school graduate or equivalent required. Ex-perience in scientific glassware washing desirable. H76-81 (8/11).

Technician A (Mechanical-Metallurgical), hourly, in Materials Science and Engineering to assist in research involving semiconductor device fabrica-tion, measurements and optical instruments and tion, measurements and optical instruments and measurements. Graduation from a 2-year day technical school or equivalent of applicable experience required. Candidates must be experienced in use and operation of vacuum deposition systems, and deposition of thin films of metals and insulators, have a basic knowledge of analytical tools (ie. SEM, electro beam microscopia, shills to use street microscopia. microscope), ability to use stereo microscope, arc lamps and lasers. Position includes use of epoxies and etching and cleaning chemicals. 40 hra/wk.

The following positions were still available at Tech Talk deadline. The date following each position is the date of the most recent Tech Talk issue in which the position was described.

ADMINISTRATIVE STAFF A75-71, Documentation Manager, Admin. Info.

Syste (7/14) Coordinator/Systems Analyst,

A76-14, Area Coordinator/Systems Analyst, dmin. Info. Systems (6/16) A76-15, Dir. of Computer Services, Info. Processing Serv. (6/30). A76-16, Systems Prog., Info. Processing Serv.

(7/14)A76-17, Applications Analyst, Info. Processing

Serv. (7/14)
A76-18, Sr. Applications Prog. Info. Processing Serv. (7/14)
A76-19, Systems Planner, Info. Processing Serv.

(7/14)A76-23, Alumni Regional Director, Alumni Asso. (7/28)

BIWEEKLY:

SIWEEKLY:

B76-151, Sec. III, Medical Dept. (4/28)

B76-161, Sec. IV, Center for Space Res. (5/5)

B76-183, Sr. Clerk III, Medical Dept. (5/19)

B76-213, Sr. Sec. V, MIT Alumni Fund (6/9)

B76-215, Sec. V, Materials Sci. & Eng. (6/9)

B76-216, Sec. IV, Biology (6/16)

B76-229, Sec. IV, Office of Resource Devel. (5/20)

B76-244, Sec. IV, Alumni Association (7/28) B76-249, Sec. III, Psychology (7/14) B76-262, Admin. Asst. V, National Magnet Lab.

B76-280, Sec. IV. Center for International Stud. (7/28)

B76-290, Sec. IV, Lab. for Computer Sci. (7/28) B76-293, Typist IV, Resource Devel. (7/28) B76-294, Sec. III, Resource Devel. (7/28)

ACADEMIC STAFF: C76-4, Tech. Asst., Biology (4/28) C76-6, Microbiologist, Medical Dept. (4/21) C76-10, Tech. Asst., Biology (7/14)

SPONS, RES. STAFF PONS. RES. STAFF: D75-48, Economist, Energy Lab. (6/25) D75-161, Economist/Policy Analyst, Energy Lab. (9/10) D75-250, postdoc. res., Physics, Lab. for Nuclear

Sci. (1/14)
D76-17, Biochemist, Res. Lab. of Elec. (2/25)
D76-18, postdoc. res., Physics, Lab. for Nuclear D76-19, postdoc. res., Physics, Lab. for Nuclear

(3/3) D76-32, Staff Scientist, Neuroscience Res.

Program (3/24)
D76-40, Tech. Asst., Architecture (3/31)
D76-44, postdoc. res., Physics, Lab. for Nuclear

D76-49 Plasma Physicist, National Magnet Lab. (4/14)
D76-57, Stress Structures Design, National
Magnet Lab. (4/28)

D76-61, Energy Economist, Energy Lab. (5/5) D76-67, Biologist/Biomedical Engineer, Mech.

Eng. (5/5)
D76-70, postdoc. res., Physics, Lab. for Nuclear
Sci. (5/5)
Physics, Lab. for Nuclear Sci. (5/5)
D76-71, postdoc. res., Physics, Lab. for Nuclear

D76-80, Electrical Engineer, National Magnet Lab. (5/26)

ab. (5/26)
D76-84, postdoc. res., Res. Lab. of Elec. (6/2)
D76-101, Tech. Assistant, Cancer Center (7/28)
D76-105, Engineer, Energy Lab. (7/14)
D76-108, Eng. Prog., Res. Lab. of Elec. (7/14)
D76-113, Res. Engineer, Center for Trans.

Studies (7/14) D76-115, Immunologist, Clinical Research (7/14) D76-116, Scientific Prog., Earth & Planetary

Sci. (7/14) D76-117, Computer Prog., Lab. for Computer

Sci. (7/14)
D76-119, Oceanography Samples Analyst, Earth
& Planetary & Sci. (7/28) D76-120, Bioengineer, National Magnet Lab. (7/28)

(1726) D76-121, Res. Engineer, Energy Lab. (7/28) D76-123, Staff Biophysicist or Biochemist, National Magnet Lab. (7/28)

(6/2)

E76-15, Eng. Asst., Material Science & Eng. E76-20, Nurse, Clinical Res. Center, (7/28) E76-21, Editor, MIT Press (7/28)

HOURLY: H76-47, Mechanic B (heat & vent), Physical Plant (7/28)

The following positions have been FILLED since the last issue of TECH TALK; B76-303 Sec. III-IV B76-278

Lib. asst. III Sec. IV Sec. IB B76-173 Sr. Lib. Asst. IV Tech, C Waitre Spons. Res. Staff Sr. Sec. V Mechanic B (heat D76-87 B76-289 H76-45 H76-46 B76-270 chanic B (heat & vent) Mechanic B (heat & vent) Nurse's Aide Clk. Typist III B76-296 B76-304 Med. Asst. III Mas./Clk. III

B76-287 B76-259 A76-13 B76-305 Admin. Staff Sec. III Tel. Oper. III B76-300 H76-78 Clk. II Sec. V B76-288 B76-178 Sec. v

Sec. IV B76-309 Sec. IV

Cook Spons. Res. Staff Spons. Res. Staff H76-20 D76-104 D76-91 H76-85 Counterperson Nurse Prac. or Physician's B76-315

Sr. Clk. III Admin. Asst. The following positions are on HOLD pending final

Tech. Asst. IV B76-292 Sec. IV Sec. IV Sec. III B76-274 B76-308 Asst. Animal Tech Counterpo Cashier Cashier B76-321 B76-322

Page 4, Tech Talk, August 11, 1976