It's the world of the supersonic jet, the fastest way to reach extreme altitudes is to go down part of the trip, an aerospace executive said recently.

Dr. Arthur E. Bryson, Jr., said at an annual Martin Lecture, established by the late airplane manufacturer, Glenn Martin, in honor of his mother. The lecture, normally given by the Hanseatic Professor, outlined several aerospace applications of optimal control theory.

Optimal control theory, a technique made possible by the recent development of high speed digital computers, enables engineers to design control systems that maximize some desired flight attribute or minimize some undesired disadvantage. In the case of the Navy F-4H Phantom supersonic interceptor, the time to climb to the desired fighting altitude of 70,000 ft. can be cut in half if the pilot follows the optimum flight profile. This turns out to be a steep climb to 40,000 feet, followed by a precisely prescribed shallow dive. When the aircraft reaches supersonic speed in the dive, the pilot pulls up and literally shoots to 70,000 feet.

Other uses

The same theory will be useful in working out a climb path for a supersonic transport that will use the least amount of fuel. The SST, Dr. Bryson said, will gain altitude at an excessive rate while climbing, and optimal control theory will help minimize this disadvantage.

Optimal control theory also is finding application in planning space vehicle trajectories to distant planets with minimum engine fuel, in designing automatics capable of giving the smoothest possible ride despite periodic wind, and in the design of air-to-air missiles.

President-Elect Johnson discusses dorm construction at Burton House talks

By Mark Botsell
Dean Howard Johnson, President-elect of MIT, and Kenneth Weddington, Dean of Student Affairs, highlighted a discussion of projected dormitory plans to members of Burton House Wednesday night.

Plans for future

Dean Johnson gave the opening remarks to the gathering, in which he emphasized the need to plan for the future. The major part of the program was conducted by Dean Weddington, who explained the purpose of the discussion, the plans for the new MacGregor dormitory, and the ideas for renovation of existing dorms.

$30 REWARD
Lost — Brass Rat Call Art, X3205

Pictured above are the Brandywine Singers, part of the Saturday afternoon entertainment of Spring Weekend 1966, April 29th and 30th. The Brandywine Singers will appear with Bob Newhart and the Beach Boys at Wingaersheek Beach.

(Continued from Page 1)

will leave for Boston—the earliest arriving in Boston around 12:30 p.m. This should provide time to meet one o'clock curfew.

The weekend ticket price of $5 includes all entertainment both days plus train fare. No tax rental is necessary for Friday.

Rock and Roll blast to feature Beach Boys at Spring Weekend

President-Elect Johnson discusses dorm construction at Burton House talks

He explained that this presentation had been planned to explain present thinking on the design for dorms, to show how the architects have transformed the ideas and suggestions into definite plans, and to promote greater flow of information between the students and the Faculty Committee on Student Environment.

Slides Shown

A collection of slides, showing architect's models for the new dormitories, followed Dean Weddington's presentation. The discussion was concluded with an informal question and answer period, during which individual worries concerning the dormitories were answered and suggestions for the set-up of MacGregor and the renovation of Burton were considered.

Accent on Youth

TRAVEL HALF-FARE WITH HERITAGE!

See your convenient travel agent, Heritage, for Youth Fare applications and tickets. He will help you obtain your identification cards and save you from queuing up at the airport. We represent all airlines, play no favorites when suggesting the flights best suited to your needs.

As usual there's no charge for these services. If you're planning to fly during spring vacations and you're not over 21, see Heritage. We'll help you save half.

P.S. If you're 22 or over and need confirmed space, see us anyway.

Room 403, 238 Main Street, (Kendall Square), Cambridge — Tel. 491-0050
Ticket delivery to all M.I.T. Offices and dormitory desks