Astronauts at Thursday's press conference are, left to right: Neil Armstrong, James McDivitt, Russell L. Schweickart, Alan Shepard, Edward White II, Thomas Stafford, Charles Conrad Jr., and Frank Borman.

By BILL JUDNICK

Fourteen of the sixteen National Aeronautics and Space Administration astronauts, with several others of the Manned Spacecraft Center in Houston, Texas, spent last Thursday afternoon at MIT's Instrumentation Laboratory. Purpose of the visit was to familiarize the group with the design and operation of the guidance and navigation system that will be used aboard NASA's Project Apollo spacecraft—the vehicle which will take three men to the moon and back. Commander Charles Conrad, one of the visitors has made arrangements for the group to tour all systems that will comprise the Apollo craft — both manual and automatic.

200 Work on Design

The guidance and navigation system is being designed at Laboratory by a team of over 300 engineers and scientists from MIT and three participating contract firms: The AC Spark Plug Laboratory by a team of over 300 engineers and scientists from MIT and three participating contract firms: The AC Spark Plug Laboratory, the Raytheon Company, and Kollman Instrument Corporation.

Amenities included in the visit group were M. Scott Carpenter, L. Gordon Cooper, John Young, Virgil I. Grissom, Alan B. Shepard, Walter M. Schirra, and Buzz Aldrin, Frank Borman, James A. Lovell, James A. McDivitt, Edward H. White.

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In five to six years

Library report forecasts critical space problems

by Henry Libbey

MIT's libraries will face serious space problems within five or six years. According to a report to the Academic Council, the situation could become critical.

Submitted over ten months ago, the report considers the growth of library collections and the use of libraries for studying, the expansion of the library, and the automation of library operations.

Saying that "the time has come to build up the administration," Prof. Thomas Sherwood, Committee chairman, commented, that at the time of the report, the Committee had not studied the situation to determine how quickly it would develop.

Stressing that the present services are entirely adequate, Sherwood added the "situation is critical if you look ahead at all." Sherwood feels that the libraries, while faced with expanding requirements, have maintained a "reasonable compromise between funds and needs."

Commenting on branch libraries, he said "while people want books near them, the problem of branch libraries can get out of control."

A major proposal of the report concerned consolidation of the science and engineering libraries. While it is impossible to contract the present branch system accounting to the report, the increasing interdependence of science and engineering indicates that the Science and Engineering Libraries should be consolidated.

In the report, the Committee recommended that either a new building be erected on Ames St. or accommodate both Science and Engineering or that the Engineer- ing Library be expanded downward into Bldg. 10. According to Prof. Sherwood, "President Slottow looked favorably on the Bldg. 10 idea."

Another recommendation was that the Director of Libraries be given "a more potent title."

The National Aeronautics and Space Administration has chosen the Instrumentation Laboratory of MIT to direct overall development of the guidance and navigation system for the Lunar Excursion Module of the Apollo spacecraft.

A complex phase of the Apollo project to land three astronauts on the moon consists of developing a Lunar Excursion Module, or landing vehicle, which can be released from an orbiting lunar spaceship.

Collaborating with MIT's Instrumentation Lab will be the Sperry Gyroscope Co., the Kollsman Instrument Corp., the Grumman Corp., and the AC Spark Plug Division of General Motors. These contractors are responsible for developing the landing measuring unit, the scanning telescope, map, and visual display unit, the onboard computer, and the integrating pendulum accelerometers.

The other major phase of the Apollo program grows out of the development of the guidance and navigation system of the spacecraft that will go to the moon and back. This is known as the command and service module system. MIT's Instrumentation Lab has already been given primary responsibility for this system.

Of particular interest is the technical approach to be followed in the LEM system and the command and service module system. As many components and sub-systems as possible will be directly interchangeable between these two systems. This approach will improve overall reliability and allow the astronauts to fly any one type of system as opposed to a different system for each module.

23 young Russians visit Tech, Harvard in late November

Twenty-three young Russian professionals and men are scheduled to visit MIT and Harvard during the week of November 24 to 30. The group includes journalists, engineers, physicians and students of various fields.

The visit of the Russians is being sponsored as an experiment in international relations. A main objective is to show young professionals what American university life is like. The group arrived in the United States last Thursday, November 25 and 26. While here they will visit a number of American universities and carry on discussions of mutual interest.

About a third of the Russian visitors will be women. All will be staying with individual host families in the Boston area.