Mintz Discusses Planets' Atmosphere

Prof. Yale Mintz of the UCLA Department of Meteorology discussed the circulation of the planetary atmospheres at last week's COMPASS Seminar.

Considered the problem of an arbitrary gravitating sphere with an atmosphere displaced with solar radiation, Professor Mintz determined the mode of circulation of the atmosphere necessary to distribute the heat, and applied the results to Venus, Earth, and Mars.

First considering the symmetrical system in which the warm air flow is from the equator to the poles at high altitudes, with cold air returning at low altitudes, Dr. Mintz determined under what conditions this simple scheme becomes unstable and breaks up into another scheme.

The solution of this problem requires an analysis of vertical temperature gradients, coriolis force, the latitude having differential, and eddy viscosity, which determine transition to instability. When this happens the symmetric system breaks up into two separate regimes. The wave regime consists of high and low pressure zones, forming vortices which flow north through the highs and south through the lows in the northern hemisphere. Thus heat can be transported against the gradient. This is the case on Earth.

On Mars there are almost no clouds and no heat reservoirs, such as oceans, which are the cause of strong local variations of temperature. Most heat radiation is from the soil since there is little water or carbon dioxide in the atmosphere to radiate. The symmetric regime is expected to dominate over the wave regime. Due to the high inclination of the planetary axes the poles at the solutions represent extremes in temperature and the air flow will be from pole to pole across the equator twice a year.

In Dr. Mintz's model of Venus rotation is retrograde, there are two days to the year, and the axis is perpendicular to the ecliptic. According to this model the warm air flow is across the poles to the dark side above the returning cold air.

European Study Program Changes Applicant Deadline

The Institute of European Studies has changed deadline for applications from June 15 to June 1 due to an unusually large number of applications from qualified students.

The Institute's program, which provides study to either Venice, Parma, or Freiburg, West Germany, also involves two field-study trips in Europe.

A folder giving further information about the program is available from the Institute of European Studies, 65 E. Wacker Drive, Chicago, Illinois.

Kenya Bishop Speaks On Church's Role In Independence Movement

Bishop Caesar Gatimu, auxiliary bishop of the diocese of Nairobi in Kenya, spoke at a meeting of the Tech Catholic Club last Wednesday. Bishop Gatimu's first stop in his five-month trip in Europe was to present Kenya's problems to the American public and to appeal for aid. Part of the bishop's mission is to present Kenya's problems to the American public and to appeal for aid.

The bishop feels the independence movement, "the new blood blowing in Africa," must be carried on by religious groups who will continue the commitment that has revealed itself in so many places.

His own country is the scene of the most politicized of Mesopotamian uprisings, and he hopes to avoid such uprisings when Kenya is granted independence.

Sabin Type II Out Next Week

Sabin Type II oral polio vaccine will be distributed without change to the MIT Community next Wednesday.

The vaccine will be available in Building 10 from 9:30 a.m. to 4:30 p.m. as Walker Memorial and the dormitory dining halls between 11:30 a.m. and 1:30 p.m.

Students who missed the Type II vaccine in January should take Type II now and Type III in May. Type I vaccine then will be taken 4 to 6 weeks after the type III vaccine.

Faculty Members Win Diverse Awards

(Continued from Page 1)

Prof. F. Albert Cotton of the Department of Chemistry has been awarded the honorary degree of Doctor of Science by Temple University.

Prof. Cyril S. Smith of the Department of Mathematics was named a Fellow of the American Institute of Mining, Metallurgical and Petroleum Engineers.

The Howe Lecture is given by an individual of "high attainment in the science of iron and steel metallurgy and metallography." Prof. Keith B. Gullatt of the Department of Chemical Engineering is a member of the award committee which will select the 1966 winner of the Dwight D. Eisenhower Award for Chemical Engineering.

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