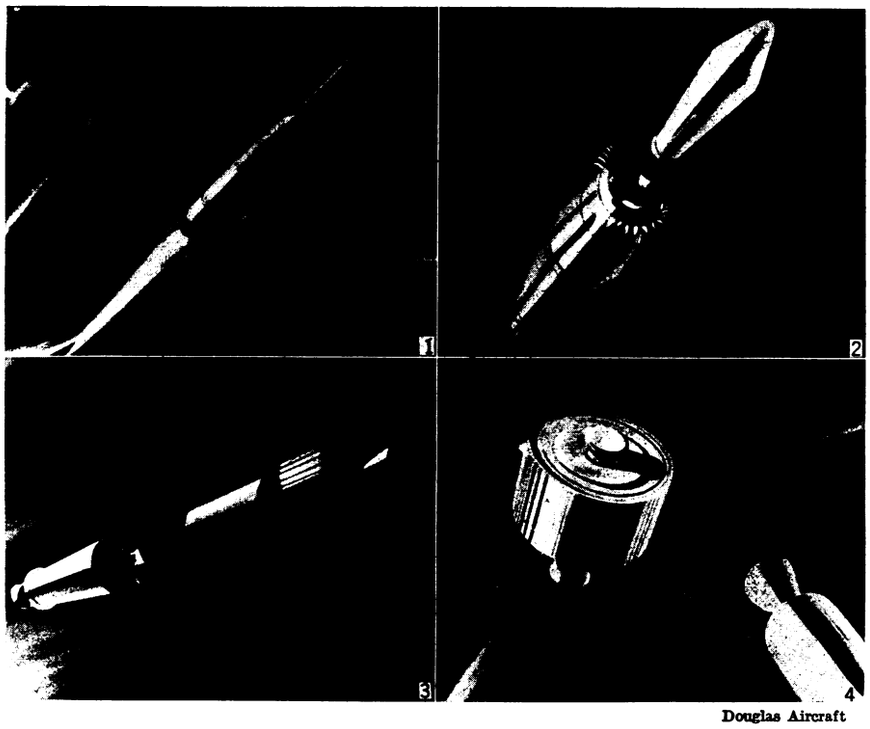

Douglas Aircraft

FROM LAUNCH TO ORBIT—Flight sequence of Syncom III satellite is shown in this artist's drawing. 1. Separation of the solid propellant booster rockets from the first stage. 2. The second stage firing after separation. 3. Separation of expended second stage and firing of the third-stage motor. 4. The third stage falls away from Syncom, leaving it in its preliminary orbit.

GENERAL SCIENCE

Scientists for Goldwater

➤ THE FORMATION of a group of scientists and engineers backing the Republican presidential ticket has been announced by the Citizens' Committee for Goldwater and Miller.

Primarily an endorsing group, the Scientists and Engineers for Goldwater and Miller is so far without a chairman or honorary head. Included among the 30 to 40 members are:

Dr. William H. Lycan, vice-president of Johnson & Johnson International; Dr. Frederick O. Hess, president of the Selas Corporation of America; Dr. Allen Abrams, a consultant for Arthur D. Little Corporation, Cambridge, Mass.; Dr. Paul W. Bachman, former president of Koppers Company, Pittsburgh; James W. Hackett, vice president for research and engineering of Owens Illinois and Glass Company; Abbott L. Penniman Jr., director of the Atomic Power Development Association and past national director of the American Society of Mechanical Engineers; and, P. Willard Crane, vice president of the Cincinnati Milling Machine Company.

Also, Adm. Ben Moreell, former president of Jones-Laughlin Steel Corporation and head of the U. S. Navy's Seabees of World War II; Dr. Charles W. Walton, vice-president for research and development of the Minnesota Mining and Manufacturing Company; Dr. Homer J. Stewart, chief of liquid propulsion of California Institute of Technology's Jet Propulsion Laboratory; Dr. Donald B. Keyes, former head of the University of Illinois' chemistry department; J. Carlton Ward Jr., former president of Fairchild Aircraft Corporation and former board chairman of Vitro Corporation; Dr. Walter A. Compton, vice-president of Miles Laboratories, Elkhart, Ind.

Currently coordinating the formation of the S. & E. for G. & M. is Gary Greene of the Citizens' Committee. Mr. Greene pointed out that the purpose of the group is very different from that of the Task Force on Science, Space and the Atom, which was formed recently by the Republican National Committee at the request of Sen. Goldwater. The Task Force, rather than being an endorsing body, was designed to advise both the public and the Republican candidates about facts that are "far more enduring than mere ammunition for partisan campaigning."

The new group has a counterpart in the Scientists and Engineers for Johnson formed in July.

This latter group, consisting of 38 of the nation's leading scientists, includes ten Nobel Prize winners, former science advisors to Presidents Eisenhower and Kennedy, two university presidents and eleven top industrial executives.

• Science News Letter, 86:254 October 17, 1964

SPACE

Syncom III Satellite Brings Olympic Pics

➤ THE SYNCOM III satellite, hovering over a fixed point on the earth, has made possible the first live television pictures between Asia and America.

TV pictures of the opening ceremonies of the 1964 Olympic Games on October 10 were transmitted to a relay station at Kashima, Japan, north of Tokyo, and from there beamed to the satellite. Syncom sent the signals "in one ear and out the other," down to a receiving station at Point Mugu, California.

The National Broadcasting Company, which bought the television rights to this year's Games, handled the operation at both ends, with the Communications Satellite Corporation (ComSat) bringing up the middle.

Though Syncom appears to be motionless in space, actually it is racing along at over 6,800 miles per hour. The earth, however, is rotating about its axis at exactly the same speed as the satellite revolves around the earth.

Since Syncom is in orbit around the equator, the orbit of the satellite is in the same plane is the rotation of the earth. This means that, to an observer on earth, the satellite appears not to be moving.

In order to match the speeds of satellite and planet, Syncom was rocketed to an orbit of a carefully chosen altitude, about 22,300 miles. At this height, the speed necessary to keep the satellite in orbit is just the same as that of the earth on its axis.

• Science News Letter, 86:254 October 17, 1964

GENERAL SCIENCE

Scientists Form Voter Information Committee

➤ TEN U. S. scientists have joined to provide the public with information on any issues involving scientific knowledge that may arise in the 1964 presidential campaign.

The 1964 Scientists Committee for Voter Information in Cambridge, Mass., is headed by Dr. Edward L. Tatum, of the Rockefeller Institute, New York, a 1958 Nobel Prize winner.

The committee, which is recruiting some 300 to 500 additional members throughout the nation, claims to take no partisan political stands and will not recommend specific courses of action or comment on non-political issues.

• Science News Letter, 86:254 October 17, 1964

Do You Know?

The average *physician* spends one-sixth of his productive life obtaining his medical degree.

A microwave "vision" system has been developed to enable pilots to see the *runway* in bad weather.

• Science News Letter, 86:254 October 17, 1964