sonnel in critical shortage from other vital areas such as health, industry, education and science."

And, it concluded, under a heading of "Freedom's Shield—and Sword," with a pledge to "revitalize research and development programs needed to enable the nation to develop advanced new weapons systems, strategic as well as tactical."

The platform's failure to match its predecessor in paying court to science may possibly be the result of nothing more than the Goldwater camp's desire to concentrate on a few key themes. But the suspicion arises that the relatively brief attention to science and technology may have something to do with what appears to be a dearth of support and advice for Goldwater within the leadership of the scientific community. There may, in fact, be an ample supply of Goldwater supporters among scientists, but extensive inquiry in the scientific community and Goldwater headquarters in Washington has failed to turn them up. A query to the offices of Citizens for Goldwater in Washington brought the reply that "there is no (scientific) advisory group at this time, but in the course of the campaign, the Senator will turn to such recognized authorities as he may find necessary."

Just who these authorities will be is not clear at this time. Because the Senator and the distinguished physicist Edward Teller share the same views on nuclear testing, it has been thought by some that perhaps Teller would assist the Goldwater campaign. A telephone inquiry to Teller brought the curt reply, "I have not been asked," and no further comment. Associates of Teller report that he has been angered at published reports that he is associated with the Goldwater campaign, and they state that he is not interested in helping Goldwater. The campaign, of course, is just now getting organized, and it is possible that if the Republicans deem it sufficiently important, they can come forth with a solid group of scientific advisers. Whether it is really important to do so is another matter, but it has become the style for political figures to have at least a scientist or two in camp, and at this point it must be noted that none is in evidence in the Goldwater entourage. (When asked whether he knew of any prominent scientists working for Goldwater, one of the administration's science advisers commented, "Eighteenth century politicians don't have science advisers.")

By contrast, there appears to be a great deal of ferment among scientists and engineers opposed to Goldwater. No formal organization has yet been announced, but sometime within the next few weeks, a rather blue-ribbon group of scientists and engineers—including several who have previously been associated with Republican politics—is expected to announce its support for Johnson.

However, a number of scholars outside of the scientific community, but still within the academic realm, principally in economics, have been associated with the Senator. According to *The Congressional Quarterly*, an authoritative weekly report on political affairs, the following are among persons in various professions whom the Senator "has frequently called upon for aid and advice in his successful campaign for the . . . nomination": Economists Karl Brandt, of Stanford; Milton Friedman, of the University of Chicago; Gottfried Haberler, of Harvard; Warren Nutter, of the University of Virginia; Raymond J. Saulnier, of Columbia; Gerhart Niemeyer, a Notre Dame political scientist; and Robert Strausz-Hupe, director of the Foreign Policy Research Institute at the University of Pennsylvania. Though not listed in the *Congressional Quarterly* report, Stefan Possony, director of the International Studies Program, Hoover Institute, Stanford, has also assisted the Senator.

Personal Interest

It has often been noted that the Senator's personal interests run to things technical, and from this it has been inferred that he would be eager to promote scientific and technical activity. The step from personal interest in flying, electronics, and photography to active governmental promotion of science and technology is not necessarily inevitable, but the Senator's familiarity with and liking for technology do suggest a degree of sympathy that would at least make him very accessible on scientific and technical matters. Just how much personal interest in this area would weigh against the various forces for weapons research and economy that might be put in motion by Goldwater is another matter.

Also in question is what would happen to the elaborate scientific advisory apparatus that has developed virtually apolitically since it was started during the Eisenhower administration. Many of those who were given advisory roles under Eisenhower had no difficulty in serving the Kennedy-Johnson administration and, with few exceptions, many of those serving in the current administration would have had no qualms about serving Nixon if he had defeated Kennedy. (In 1960, the historian Arthur Schlesinger, Jr., a Kennedy adviser, saw fit to produce a campaign tract titled, "Kennedy or Nixon: Does It Make Any Difference?" It is not likely that the current campaign will bring a similar work.) On the basis of an admittedly limited survey of current scientific advisers, it appears that anti-Goldwater feeling is of an intensity that would make it unlikely for the Eisenhower-Kennedy-Johnson group to feel very much at home with the Senator in the White House. Views differ, however, on whether there would be a mass exodus. Some say that even if invited to stay, they would move on, but others express the view that if given an opportunity to remain in an influential position, they would prefer to do so, rather than yield their authority to persons politically sympathetic to Goldwater.

—D. S. GREENBERG

Announcements

The National Conference of Standards Laboratories (NCSL) has issued a call for information to be included in its **Directory of Standards Laboratories in the United States.** For the purpose of the directory, a standards laboratory is considered "any industrial, governmental, academic, or scientific group or organizational unit of technically trained persons, working under professional direction, engaged to a significant extent and on a continuing basis in the calibration of measurement standards and instruments." NCSL has a questionnaire which laboratories are requested to complete for inclusion in the directory. A laboratory need not be a member of NCSL to participate. The questionnaires are available from Harvey Lance, National Bureau of Standards, Boulder, Colorado 80301.

An institute for **molecular virology** has been established at St. Louis University's medical center. The major program will be fundamental research in molecular virology and cancer; the center will also provide work for medical and graduate students and for post-

doctoral fellows in virology and molecular biology. The institute will be headed by microbiology professor Maurice Green.

Meeting Notes

Massachusetts Institute of Technology will sponsor an international conference on the **earth sciences**, 30 September to 2 October. Sessions are planned on the earth's environment, atmospheric motions, and the dynamics of oceans; and two half-day sessions will be devoted to the "solid earth." A major feature of the meeting will be the dedication of the 20-story Green Building, which will house M.I.T.'s earth science center. (Formal invitations to the meeting are available through H. G. Houghton, head of the meteorology department, or R. R. Shrock, head of the department of geology and geophysics, M.I.T., Cambridge, Mass.)

An annual conference on **diffraction** will be held 4–6 November in Pittsburgh, Pennsylvania. Sessions will be devoted to instrumentation, metals and alloys, structures, extinction, low-energy electron diffraction, and small-angle scattering. A placement service will be available. (W. M. Biagas, Pittsburgh Diffraction Conference, Crucible Steel Company, P.O. Box 7257, Pittsburgh, Pa. 15213)

Grants, Fellowships, and Awards

Nominations are being accepted by the general advisory committee to the AEC, for the 1965 Ernest Orlando Lawrence memorial award for contributions to the development, use, or control of **atomic energy**. Nominations should include a brief biographical outline and a concise statement of the scientific or technical achievements on which the nomination is based. The award is presented to a maximum of five persons, and includes a medal, citation, and honorarium of at least $5000. Candidates must be U.S. citizens, less than 46 years of age by next 1 July. Deadline for receipt of nominations: *1 November*. (Chairman, General Advisory Committee, U.S. Atomic Energy Commission, P.O. Box 19029, Washington, D.C. 20036)

The American Thoracic Society offers fellowships for teaching and research in tuberculosis and other **respiratory diseases**. Applicants must have been accepted by the department head under whom they plan to work for the next academic year; work must be done in a U.S. hospital or medical center. The awards are:

Postdoctoral research: for further training of persons holding an M.D., Ph.D., or D.Sc. degree.

Predoctoral fellowships: for graduate students with a bachelor's or master's degree, to work on a research project for an advanced degree other than the M.D.

Teaching fellowships: for physicians in their second or third year of residency, for training toward teaching careers in pulmonary disease.

Edward L. Trudeau fellowships: for physicians who have completed their residency and have been accepted for a teaching or research post on a medical school faculty.

The fellowships may begin at any time after 1 April, the amounts to be determined by individual circumstances. Research and training awards are renewable for up to 3 years; Trudeau fellowships, for up to 4 years. Deadline for submitting applications: *1 November*. (Director of Medical Education, American Thoracic Society, 1790 Broadway, New York, N.Y. 10019)

Ph.D. candidates and recent recipients of the doctorate are eligible to apply for financial aid for **geographical field research** outside North America, under a program sponsored by the Office of Naval Research. The grants are administered by the Division of Earth Sciences, National Academy of Sciences, and will provide for travel, field, and living expenses for from 6 months to 2 years. Deadline for receipt of applications: *1 December*. (Foreign Field Research Program, Division of Earth Sciences, NAS–NRC, 2101 Constitution Avenue, NW, Washington, D.C. 20418)

A graduate program in **psychopharmacology** has been announced by the University of Minnesota. Emphasis will be on the integration of basic experimental methods in psychology, physiology, biochemistry, and pharmacology. Pre- and postdoctoral traineeships are available. Predoctoral grants are $2400 to $3000 a year plus tuition; postdoctoral stipends will be $6000 to $7000. (Director of Psychopharmacology Training, Department of Pharmacology, University of Minnesota, Minneapolis 55445)

Courses

A course on the sources and use of **toxicological information** has been organized by the New York University Medical Center and the American Industrial Hygiene Association. It is scheduled 21–25 September, in Tuxedo, New York. The course is designed for persons who are responsible for securing information on toxicology studies, but who may not have had formal training in the field; a specialized scientific background will not be required for participation. Registration fee is $150, plus $105 for meals and lodging. Participation will be limited to 50 persons. (Office of the Recorder, New York University Post-Graduate Medical School, 550 First Avenue, New York)

The Hospital for Special Surgery, in New York, will present an introductory course on **radioactive tracers in orthopedics**, 19–21 November. The object of the course is to teach utilization of radioactive tracers in the diagnosis and investigation of skeletal conditions, emphasizing methods that are applicable through instrumentation available at most modern hospitals. The tuition is $50, and limited funds are available for travel. Deadline for applications: *15 September*. (G. C. H. Bauer, Hospital for Special Surgery, 535 E. 70 St., New York 10021)

Applications are being accepted for an institute in **differential scanning calorimetry**, 21–23 September in Greenwich, Conn. The course will include both lecture and laboratory sessions. The $75 registration fee will include training materials. (P. G. Balko, Instrument Div., Perkin-Elmer Corporation, Main Avenue, Norwalk, Connecticut)

Films

The following are available from Coronet Films, Coronet Bldg., Chicago, Ill. 60601.

Ammonia (18½ minutes, sound; color, $175; black and white, $87.50). Physical and chemical properties of ammonia, and equations for some of the reactions.

Chromium and Manganese (37½ minutes, sound; color, $350; black and white, $175). Chemistry of chromium and manganese, with a central theme of oxidation-reduction.

Molecular Weight of Solutes (8 minutes, sound; color, $75; black and white,

$37.50). Methods for the determination of molecular weights of nonvolatile solutes; makes determinations with an organic solvent and water, and discusses conventional calculations.

Demonstrating the Gas Laws (21 minutes; sound; color, $200; black and white, $100); Volume of gas varies directly with absolute temperature, when pressure is constant and inversely with pressure when temperature is constant.

Determination of Atomic Weight (18½ minutes; sound; color, $175; black and white, $87.50). Calculation of atomic weight of copper from data received in determining specific heat and approximate atomic weight, then finding equivalent weight by reducing a known quantity of copper oxide with hydrogen.

Man and Radiation (28½ minutes, color; free loan, $77.99 purchase). Explains the nature of radiation and the history of its discovery, and some of the beneficial applications. (Audio-Visual Branch, Division of Public Information, U.S. Atomic Energy Commission, Washington, D.C. 20545)

The following are available from Norwood Films, 926 New Jersey Avenue, NW, Washington, D.C.

Basic Telephony (23 minutes, sound; black and white, $49.75; No. TF 11–3116). Operating principles, schematic and wiring diagrams, the four circuits (transmitter, receiver, generator, and ringer).

Basic Autopsy Procedure (51 minutes, sound; color, $182; No. PMF 5339). Purpose, technique and advantages of the basic autopsy procedure. Explains the preliminary steps taken by the pathologist and the legal requirements for performing an autopsy.

The following films are available for loan from the NASA Manned Spacecraft Center; all are 16 mm, sound, color. Inquiries should be addressed to the Audio-Visual Branch, Public Affairs Office, 2101 Webster-Seabrook Road, Houston, Texas 77058.

U.S. Manned Lunar Expedition (14 minutes). U.S. approach to placing a man on the moon and returning him to earth safely within this decade; explains the gap between Projects Mercury and Apollo, and describes how Project Gemini is designed to remedy it.

Project Mercury Manned Orbital Flight (6½ minutes). Major sequences of events during a manned orbital flight; includes description of the Atlas launch vehicle, and details of the Mercury systems as they operate during flight and reentry.

Apollo Reentry Simulation (11 minutes). Explanation of the method that will be used for the reentry phase of an Apollo mission; shows a simulated reentry, using computers, graphs, and cockpit.

Aerodynamic Aspects of Project Mercury (21 minutes). Testing of the Mercury configuration in wind tunnels and launches; basic concepts and later modifications which were verified in the Little Joe, Redstone, and Atlas launches.

Scientists in the News

Gunter R. Haase, formerly associate professor in the University of Oklahoma medical school, has been appointed clinical professor of neurology at Temple University's medical school.

The following were recently appointed to 6-year terms on the National Science Board, governing body of the National Science Foundation:

H. E. Carter, dean of the graduate school, University of Illinois;

Julian R. Goldsmith, associate dean, physical sciences division, University of Chicago;

William W. Hagerty, president, Drexel Institute of Technology;

Mina S. Rees, dean of graduate studies, City University of New York;

John I. Snyder, Jr., president and chairman, U.S. Industries, Inc., New York;

Julius A. Stratton, president, Massachusetts Institute of Technology;

Frederick P. Thieme, vice president, University of Washington.

John C. Briggs, research scientist at the Institute of Marine Science, University of Texas, has been appointed professor of zoology at the University of South Florida, as of 1 September.

Robert F. Rinehart has returned to Case Institute of Technology as a professor of mathematics after a 2-year leave of absence as director of research in the Defense Department's weapons systems evaluation group.

Frank D. Drake, former head of the lunar and planetary sciences section at the Jet Propulsion Laboratory, has become associate professor of astronomy at Cornell.

James E. Canright, botany professor at Indiana University, will become professor and chairman of the department of botany at Arizona State University, Tempe, 1 September.

Clinton C. Powell, director of the National Institute of General Medical Sciences, NIH, retired from the Public Health Service 31 July. He will become associate coordinator of medical and health sciences at the University of California, in August.

Ian McTaggart-Cowan, head of the zoology department and assistant dean of science at the University of British Columbia, has been appointed dean of the faculty of graduate studies at the university, succeeding **F. H. Soward**, who retired 30 June. **Vladimir Okulitch**, head of the geology and mining and geological engineering departments at the university, has been appointed dean of the faculty of sciences. He has been acting dean since the establishment of the faculty of science as a separate facility in July 1963.

Recent Deaths

Paul J. Arnold, 67; chairman of the division of sciences and mathematics, Jacksonville State College, Alabama.

Richard M. Bidwell, 45; of the Los Alamos Scientific Laboratory; 26 July.

Thomas Henry Carroll II, 50; president of George Washington University; 27 July.

Harold L. Geissert, 61; professor of sociology and anthropology at George Washington University; 9 July.

William L. Hill, 65; director of the USDA fertilizer laboratory; 17 July.

Matthew T. McClure, 81, dean emeritus of the University of Illinois College of Liberal Arts and Sciences; 28 July.

Paul R. Needham, 62; professor of zoology, University of California, Berkeley; 9 July.

Martin E. Rehfuss, 76; professor emeritus of clinical medicine, Jefferson Medical College; 29 July.

Frederick Hanley Seares, 91; retired assistant director of the Mount Wilson Observatory; 20 July.

Erratum: In the title of the report "Homografts in thymectomized, irradiated mice: responses to primary and secondary skin grafts" by W. E. Davis, Jr., M. L. Tyan, and L. J. Cole (24 July, p. 394), the word "homografts" was misspelled "homographs."