

nauts. At some point they should fly science observers, and the sooner the better," he added. No scientist-astronauts have been scheduled to fly in any of the announced future missions.

At NASA headquarters, Donald Wise said he resigned from NASA because he wanted to return to the academic community and to his responsibilities there. Wise, who will become a visiting professor of extraterrestrial geology at the University of Massachusetts, characterized NASA as an agency that grew quickly and that considers science just one small part of its many functions. He said the space agency's main problems are inadequate manpower for keeping track of the scientific programs, insufficient funding by Congress, inadequate long-range planning, the juxtaposition of scientific goals and political and engineering interests, and lack of understanding of scientific goals at the management level in NASA. In discussing the agency, Wise said he was proceeding with caution. He expressed concern that the scientific community "by its criticism will create additional problems."

Potential vis-à-vis Reality

"There is a difference between potential and reality," Wise said; "We don't want to lose the reality by lamenting the potential. With enough screams, we will fly only five missions instead of ten—this would be the real tragedy." Wise stressed scientific cooperation within the agency. "We [scientists] have to live with engineering groups. We can't just say we're picking up our marbles and going home. This attitude degrades what little science we can get out of it. Personally I'm frustrated," Wise concluded, "but I'm loath to really kick [the space program] for fear of doing more harm than good."

Commenting on the resignations, Henry Smith, a NASA Deputy Associate Administrator for Space Science and Applications, told *Science* that Hess was known to have shown disappointment over the amount of scientific research included in the lunar programs, but that his resignation was "a surprise to the agency." He called Hess's resignation "critical," and indicated he would be a hard man to replace. Smith said he can foresee "no widespread dissatisfaction or mass exodus of scientists from NASA," but did admit that the agency has a continuing problem in recruiting good scientists for science-administrative po-

sitions. Wise's resignation, Smith said, is an example of a scientist's preference for research activities and academic life over a government administrative position.

Michel is not the only scientist-astronaut who quit the program to devote more time to scientific work. Brian O'Leary resigned from the program last year to take a position as a professor of astronomy and space sciences at Cornell. In a letter to the *New York Times* and the *Washington Post* last week, O'Leary said "The gap between science and engineering in NASA's manned space program seems to be widening, and the scientists are coming out on the short end." O'Leary said the "most dramatic" example of this "regrettable situation" was the announcement of the Apollo 13 and Apollo 14 crews. "Each crew includes two rookie test-pilot astronauts," who joined the program more recently than several of the scientist-astronauts, O'Leary said. (NASA officials say O'Leary resigned from the program last year because he did not wish to become a pilot. In the official announcement of his resignation, O'Leary is quoted as saying, "Flying just isn't my cup of tea.")

Of the half dozen other NASA scientists interviewed, *Science* found all were disappointed that there is not more scientific research, particularly in the lunar programs. The attitude seems to be that NASA could and should do more scientific research than it does.—MARTI MUELLER

APPOINTMENTS

J. Stanley Marshall, acting president of Florida State University, elevated to president of the university. . . . **Monto Ho**, professor of epidemiology and microbiology, University of Pittsburgh, to chairman, epidemiology and microbiology department. . . . **Roger L. Mitchell**, professor of agronomy, Iowa State University, to chairman, agronomy department, University of Missouri, Columbia. . . . **Abraham Mazur**, professor of chemistry, City College, City University of New York, to chairman, chemistry department at the college. **Frank Harrison**, acting president, University of Texas, Arlington, elevated to president at Arlington. . . . **Francis S. Johnson**, head of the atmospheric and space sciences division, South-

west Center for Advanced Studies, to acting president of the SCAS, soon to be the University of Texas, Dallas. . . . **James B. Bartoo**, head, statistics department, Pennsylvania State University, to dean, Graduate School at the university. . . . **Robert H. Heptinstall**, acting director of the pathology department, has been elevated to director of the pathology department at the Johns Hopkins University School of Medicine and pathologist-in-chief for the Johns Hopkins Hospital.

RECENT DEATHS

Margaret M. Dickie, 47; genetic mutations specialist, Jackson Laboratory, Maine; 4 July.

Frederick D. Drew, 56; radiologist and associate professor, College of Medicine, Howard University; 12 July.

L. William Earley, 52; former professor of psychiatry, University of Pittsburgh School of Medicine; 14 July.

Eduard Farber, 77; former chief chemist, Timber Engineering Co., and consultant to American University; 16 July.

Leon H. Johnson, 61; president of Montana State University; 18 June.

Rene Leviticus, 69; former professor of radiology, New York University; 3 July.

Harald Norinder, 81; former director, Institute for High-Tension Research, Uppsala University, Sweden; 6 July.

Cecil F. Powell, 65; nuclear physicist and Nobel Prize winner; 9 August.

Dorothy Rethlingshaefer, 72; professor of psychology, University of Florida; 25 July.

John S. Richardson, 60; professor of science education, Ohio State University; 22 May.

Earl Suitor, 38; microbiologist, Naval Research Institute, Bethesda, Md.; 12 July.

Friedrich Wasserman, 84; emeritus scientist, biological and medical research division, Argonne National Laboratory; 16 June.

Charles S. White, 92; co-founder of Doctors Hospital, Washington, D.C.; 12 August.

Martin H. Wittenborg, 55; associate clinical professor of radiology, Harvard University Medical School; 10 August.

Fletcher D. Woodward, 74; professor emeritus of otolaryngology, University of Virginia; 2 July.