

help of dedicated scientists and engineers focusing their efforts on improving transportation with a minimal adverse effect on environment." He said that most of the Center's staff could go to work on problems in transportation immediately.

As examples of prospective DOT work at the Center, Volpe listed R&D on: automated air-traffic control, aircraft collision-avoidance systems, aircraft automatic-landing systems, sensors for measuring air pollution from vehicles,

systems analysis on urban transit and highway traffic, ocean buoys to transmit weather and oceanographic data, and auto-driver simulation systems to study accident causes and prevention.

In early May DOT said that the Center would have about 425 employees of all types on 1 July. Of 826 employees at the beginning of this year, 159 had left by May and another 56 were planning to leave. DOT said that it would keep as many employees as possible, that it was sending letters telling employees whether or not a "suitable position" for them at their current speciality and salary

seemed likely at the Center, and that those obliged to leave might be considered for other jobs in Transportation.

Inquiries by *PHYSICS TODAY* in late May helped to clarify some aspects of the job situation at the Cambridge Center. From the beginning of this year to 1 July the professional staff, almost all of whom have graduate degrees, was expected to drop from about 430 to 240. Of these, employees working in physics jobs were being cut from about 250 to 90. Many physicists, some of them definitely "senior," were effectively told that their jobs would end on 30 June. An estimated

THE PHYSICS COMMUNITY

Teachers From Black Colleges Evaluate Their Physics Programs

Should we teach physics differently to black students? When 50 physics teachers from black colleges, and other interested persons, exchanged their views recently the answer was decidedly "yes." In honest and realistic terms, the group evaluated and tried to redirect existing programs. From this forum on common problems came a recognized need to create independent, self-sufficient programs geared to the black student. Chaired by James Mayo of Morehouse College, the conference was sponsored by the Sloan Foundation and held during the middle of May in Atlanta, Ga.

The problems were those found in most small colleges, yet their emphasis changed within the context of being black: How do you combat the lack of successful models and poor motivation, and how do you build confidence? These questions were common to all six discussion groups concentrating on different topics; for the answers, they considered teaching experience in the black college as the primary source. Because most of these schools are beginning to experience competition from the larger, predominantly white universities for students and faculty, the atmosphere throughout the conference carried a sense of urgency.

Much of the discussion kept turning to the high school, which was soon identified as the core of many problems. "Because the local high schools are inadequately preparing students in the sciences, more attention should be given to training high-school teachers," said Walter Massey of Brown University. Some suggested remedial courses for the student at the college level, if one could break down resistance to these courses; still others recommended extending

the curriculum over a five-year period.

In evaluating the curriculum, Julius Taylor of Morgan State College commented that "most students are not prepared for graduate school, because the present emphasis on specialized courses does not give the student a good understanding of basic concepts." Many others also advocated a curriculum that concentrates on basic concepts instead of on the overspecialization found in the larger universities. The consistent theme was the need for these schools to create their own programs, especially because many felt that the existing programs and textbooks did not fully meet their students' needs. One specific recommendation called for an ad hoc group to study the funding of an effort to develop instructional materials, especially text material.

But even if the curriculum was improved, the real need is for better teachers. George Neely of Fisk University "strongly favored the idea that the schools might reap greater benefits by going after an MS recipient, developing him as a teacher and, at the same time, encouraging him to obtain a PhD. That is, fit the man to the job, rather than the job to the man."

The major barriers in faculty recruitment are lack of funds and research facilities. A possible solution, for which a proposal is being written, is for a few geographical centers, each based around one college that is near laboratories and industries. In this way, each center would have a combination of advantages that would make it easier to attract money and good physicists interested in research. The objective would be for the colleges to exchange teachers with each

other in addition to the present exchange programs with larger universities, which, it was felt, often do not benefit the smaller school. For example, at one school a chemistry professor was sent to a larger university for two semesters and in return the smaller school received an English professor for one semester. Regional summer workshops were also mentioned as a way to improve faculty and students.

The conference ended with the appointment of an executive committee headed by Mayo, to organize the proceedings and to plan future projects.—TJ

AIP Names Robert Marks as New Associate Director

Robert H. Marks has become associate director for publications and information for the American Institute of Physics, as of 16 May. Marks is overseeing the publication of journals, including *PHYSICS TODAY*, for AIP and its member societies, and the AIP information division.

Marks, who received his BS in civil engineering from the Massachusetts Institute of Technology in 1947, was previously the public relations manager for Michel-Cather, Inc. From 1959 to 1969 he was with McGraw-Hill, Inc., serving as the managing editor of *Power* for the last five years.

Unsupported Papers Delayed By AIP; Charges Increased

The American Institute of Physics has reinstated a three-month delay for those domestic and foreign articles for which the page charges are not honored, and has increased this charge for most of its journals.

H. William Koch, AIP director, stated