

THE AAPT-AIP

REGIONAL COUNSELOR PROGRAM

A NEW COOPERATIVE EFFORT IN PHYSICS EDUCATION

an AIP staff report

THE American Association of Physics Teachers and the American Institute of Physics have jointly established the Regional Counselor Program in Physics to promote local cooperation for better physics teaching. Professional societies in physics and local educational authorities have found it necessary to obtain the active help and advice of physicists who are familiar with local educational problems if significant progress is to be made in improving physics teaching and if the full benefits of national efforts are to be realized. The improvement of physics teaching in the schools requires local activity by physicists because precollege education is primarily a responsibility of the city, county, or state in the United States. However, many of the smaller colleges are also in need of help in their physics programs, and liaison between them and the national organizations in physics is in need of considerable improvement.

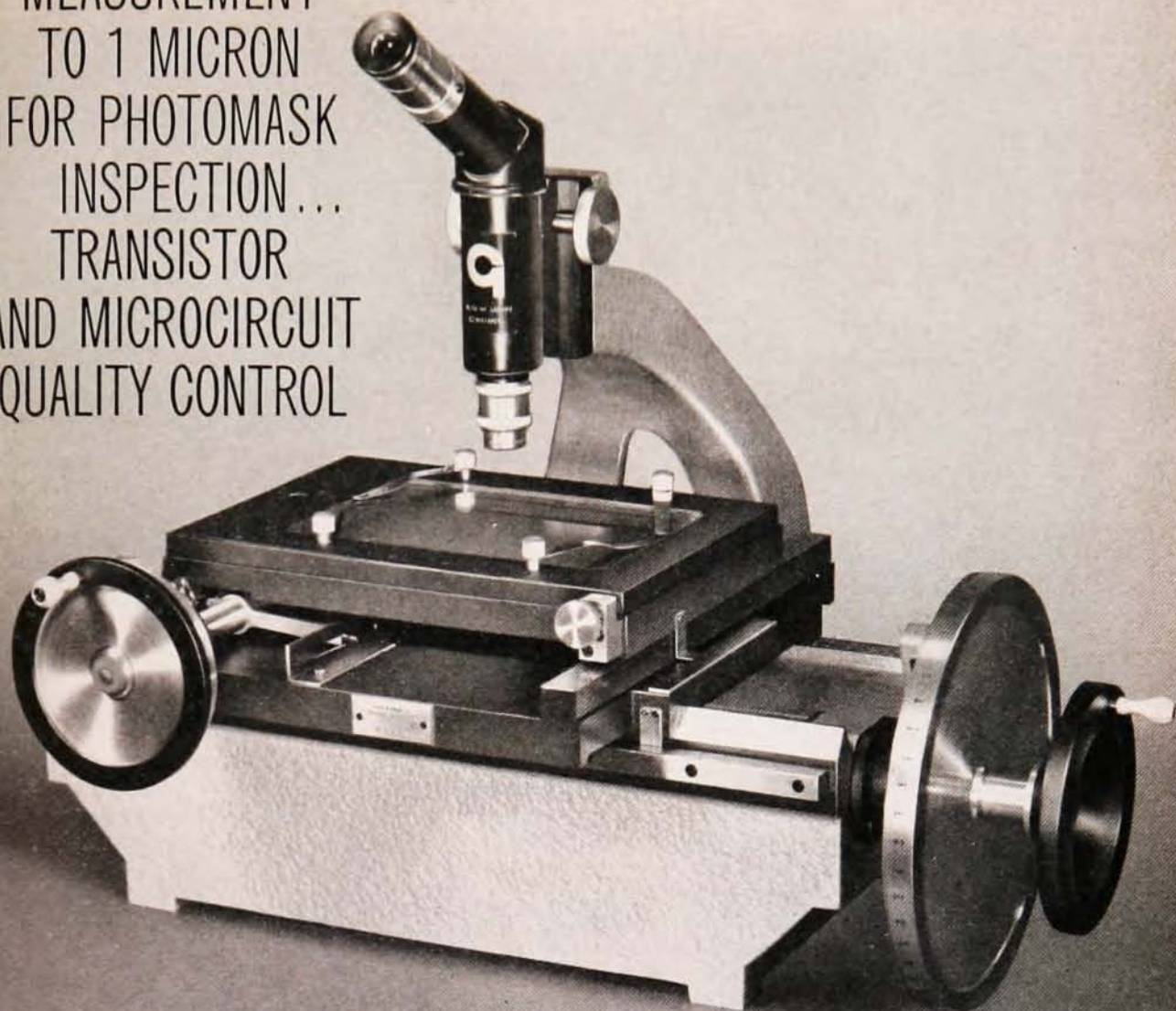
A number of national activities have been directed toward these problems. The AAPT-AIP Visiting Scientists Programs in Physics, now in their fifth year, provide the stimulus of visits to high schools and institutions of higher learning and furnish valuable feedback of information and recommendations concerning the chief local educational problems in physics. The AAPT Committee on High School Awards recognizes ten high schools each year for excellence in the teaching of physics. The booklets *Physics In Your High School* and *Why Should You Study Physics In High School?* are stimulating discussion among school officials and are encouraging greater enrollments in high-school physics. These are just a few of the activities that have a local impact. It became clear, however, that these activities would have a greatly enhanced effect and other desirable activities would become possible if AAPT and AIP had the support of an active group of physicists throughout the country who had special local responsibilities in education and who would work in cooperation with school and college officials to improve physics teaching.

The regional counselors are physicists chosen for competence in physics, interest in the improvement of

physics teaching, and ability to work effectively at the local level toward this objective. At the present time counselors have been appointed in 47 states and Puerto Rico (California, Connecticut, New Jersey, and the District of Columbia still lack counselors). A list of the counselors is given at the end of this article. As the program expands, two or three counselors will probably be appointed in each of the larger and more populous states so that the whole group will eventually number around one hundred. A Regional Counselor Office has been established at AIP within the Department of Education and Manpower to coordinate the program and to support the activities of the counselors. Policies for the program are established jointly by the AAPT Advisory Committee on the Regional Counselor Program, including the president, president-elect, and past-president of AAPT, and by the AIP staff. The formal appointment of counselors is made by the director of the American Institute of Physics in behalf of AAPT and AIP.

The first meeting of the regional counselors was held at the American Institute of Physics on January 27th with 23 counselors from as many states in attendance. Dr. Frank Verbrugge of the AAPT, Dr. Leonard Olsen of the advisory committee for the program, and Dr. Elmer Hutchisson of the AIP thanked the counselors for their fine efforts in the four short months since the inception of the program in September 1961 and reaffirmed the determination of the two organizations to support it. After an opening talk in which Dr. Samuel K. Allison of the University of Chicago stressed the appropriateness of the program's approach (that is, getting at educational problems in physics at the local level), the meeting continued with brief reports by each of the counselors on the plans he had under way for developing a program in his state. It became evident that a wide variety of approaches was being tried, that there seems to be a definite local interest in taking advantage of the services of the counselors, and that, in spite of the limitations on time available for these activities, the counselors are making progress. The general tenor of

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AAPT-AIP regional counselors met at the Institute's headquarters in New York City on January 27, 1962.

the meeting was one of enthusiasm, and many of the counselors stayed late into the afternoon for informal discussion of their activities.

The broad objective of the program during the first year—and probably for some time into the future—is the improvement of high-school physics teaching. The local situation determines the specific program of activities to be followed by each counselor, and the spectrum of their activities is a wide one. All counselors receive a publication, *Regional Counselor Reports*, which contains excerpts from letters sent by them to the Regional Counselor Office at the Institute describing their work, their successes, and their problems. In this way they are kept constantly in touch with the activities of their fellow counselors and can learn from one another's experience. In one state which has only about forty high schools, the counselor, in cooperation with the state science adviser, decided that a study of the training and background of the existing science teachers and in particular of the physics teachers would be in order and entirely feasible. His plan is to make specific recommendations at the end of the study as to subjects or areas in which additional training would be of considerable value to the teachers. The teachers will be referred to NSF Summer Institutes as well. Other counselors are participating in groups which are implementing national guide lines for the education of high-school teachers of science. Several are turning their attention specifically to the problem of strengthening the teaching of physics in col-

leges for teacher preparation. One counselor is organizing several conference-workshops in physics for secondary-school teachers in his region designed to familiarize them with new ideas for laboratory experiments. Another is teaching physics on Saturday mornings to high-school science teachers in his area.

In those states where there is no organization of physics teachers, counselors are exploring the possibilities of setting up such groups either as local chapters of AAPT or of state science teachers associations. In some states, meetings of all physics teachers are being planned to discuss teaching problems. Counselors are following the progress of efforts to evaluate new physics courses such as that of the Physical Science Study Committee.

An activity common to many of the counselors is the establishment of "counselor centers" within a state, effecting a geographical distribution of cooperating physicists who will help in carrying out the objectives of the Regional Counselor Program. One such plan is to organize a group of college physicists to act as advisers to high schools in the selection of physics apparatus. Another is to establish centers at several universities and colleges in a state, each of which will comprise several physicists who will be willing to have their names distributed as persons available to assist the high schools in any problems associated with their physics programs. One counselor, having established a Regional Counselor's Newsletter and having solicited suggestions from physics colleagues and from junior

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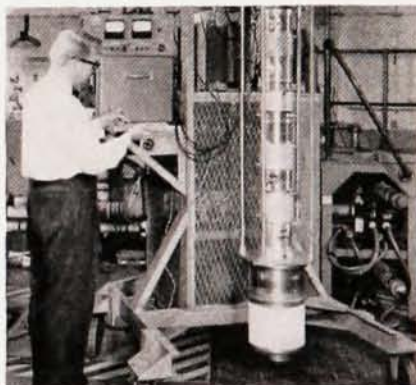
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and senior high-school teachers in his state, received many worthwhile suggestions, which included a proposal for the establishment of "sectional clinics" to consider and discuss teaching problems, new and improved methods, and materials. It was also suggested that some sort of communications system to provide reference sources to current literature and materials of interest to science teachers might be established.

Although the national emphasis of the program is initially at the high-school level, interest is developing in new programs for elementary-school science. One counselor, because of the relatively few high schools in his state, feels it will be possible for him to encourage the use of experimental elementary science material. Another counselor is himself developing an experimental program to combine physics and mathematics in grades six through nine.

Certain activities are carried out in some degree by all counselors. These include attendance at important local meetings at which science education is to be discussed; reporting to the Regional Counselor Office on new educational programs, interests, and happenings in their states or localities; implementation of established programs, such as assisting in the local distribution of career booklets and *Physics In Your High School*, setting up local action groups, and making local arrangements that would increase the effectiveness of the Visiting Scientists Programs in Physics; liaison with nearby Student Sections of AIP to help

them conduct effective programs; and attendance at ceremonies, such as presidential inaugurations, as specially requested, as representatives of AIP, of AAPT, or of other Member Societies of the Institute.

All of the activities are obviously not carried out concurrently. Each counselor and the Regional Counselor Office try to work out a program that the counselor can carry on in available time and that still permits progress to be made.

No stipend for counselors is provided in this program. The physicists involved have volunteered their time as members of the community in which they live. The counselors are reimbursed for limited travel and office expenses. Services are provided by the Regional Counselor Office, and a special effort is being made to insure that those participating receive proper recognition both locally and nationally. A national news story about the program was released last fall, a news release about each counselor was sent out last winter, and AIP's Public Relations Department will continue to issue releases on significant developments to local newspapers and television and radio stations in each of the represented states.

In launching this program, the American Association of Physics Teachers and the American Institute of Physics are convinced that the Regional Counselor Program can provide long-range educational benefits to the nation and that the regional counselors are rendering distinguished service.

Regional Counselors in Physics

(Appointments to November 28, 1961)

- Alabama: Prof. Howard Carr, Auburn University, Auburn
 Alaska: Prof. Alfred M. Bork, University of Alaska, College
 Arizona: Prof. John W. Robson, The University of Arizona, Tucson
 Arkansas: Prof. Paul C. Sharrar, University of Arkansas, Fayetteville
 Colorado: Prof. Paul F. Bartunek, Colorado School of Mines, Golden
 Delaware: Prof. F. W. Van Name, Jr., University of Delaware, Newark
 Florida: Prof. Stanley S. Ballard, University of Florida, Gainesville
 Georgia: Prof. James W. Simmons, Emory University, Atlanta
 Hawaii: Prof. Walter R. Steiger, University of Hawaii, Honolulu 14
 Idaho: Prof. Stanley H. Vegors, Jr., Idaho State College, Pocatello
 Illinois: Prof. C. J. Overbeck, Northwestern University, Evanston
 Indiana: Prof. Robert L. Henry, Wabash College, Crawfordsville
 Iowa: Prof. Grant O. Gale, Grinnell College, Grinnell
 Kansas: Prof. S. Winston Cram, Kansas State Teachers College, Emporia
 Kentucky: Prof. Donald M. Bennett, University of Louisville, Louisville 8
 Louisiana: F. A. Benedetto, S. J., Loyola University, New Orleans 18
 Maine: Prof. Clarence E. Bennett, University of Maine, Orono
 Maryland: D. G. R. Tatum, Vitro Laboratories, Silver Spring
 Massachusetts: Prof. Janet Guernsey, Wellesley College, Wellesley
 Michigan: Prof. Haym Kruglak, Western Michigan State University, Kalamazoo
 Minnesota: Prof. James H. Wernitz, University of Minnesota, Minneapolis 14
 Mississippi: Prof. E. Irl Howell, Mississippi State University, State College
 Missouri: Prof. Alexander Calandra, Washington University at St. Louis
 Montana: Prof. C. R. Jeppesen, Montana State University, Missoula
 Nebraska: Prof. Walter R. French, Jr., Nebraska Wesleyan University, Lincoln 4
 Nevada: Prof. George Barnes, University of Nevada, Reno
 New Hampshire: Prof. Allen L. King, Dartmouth College, Hanover
 New Mexico: Prof. Ralph Dressel, New Mexico State University, University Park
 New York: Dr. George Hazzard, General Electric Company, P.O. Box 1088, Schenectady
 North Carolina: Dr. Sherwood Githens, Jr., Army Research Office (Durham) Box CM, Duke Station, Durham
 North Dakota: Prof. J. Donald Henderson, University of North Dakota, Grand Forks
 Ohio: Prof. Arthur L. Lutz, Wittenberg University, Springfield
 Oklahoma: Prof. H. E. Harrington, Oklahoma State University, Stillwater
 Oregon: Prof. James J. Brady, Oregon State University, Corvallis
 Pennsylvania: Prof. Richard L. Brown, Allegheny College, Meadville
 Puerto Rico: Prof. Jose Medina-Hernandez, University of Puerto Rico, Mayaguez
 Rhode Island: Dean R. B. Lindsay, Brown University, Providence 12
 South Carolina: Prof. John E. Miller, Clemson College, Clemson
 South Dakota: Prof. V. R. Nelson, Augustana College, Sioux Falls
 Tennessee: Prof. Robert Lagemann, Vanderbilt University, Nashville 5
 Texas: Prof. J. G. Potter, Agricultural and Mechanical College of Texas, College Station
 Utah: Prof. Thomas J. Parmley, University of Utah, Salt Lake City
 Vermont: Prof. Nelson L. Walbridge, The University of Vermont, Burlington
 Virginia: Prof. S. M. Heffin, Virginia Military Institute, Lexington
 Washington: Dr. G. L. Hollingsworth, Boeing Scientific Research Laboratories, Seattle
 West Virginia: Prof. Donald C. Martin, Marshall University, Huntington 1
 Wisconsin: Prof. Joseph R. Dillinger, The University of Wisconsin, Madison 6
 Wyoming: Prof. C. A. Cinnamon, The University of Wyoming, Laramie