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Cover Giant turning vanes resembling oversized Venetian blinds are set in each corner of the transonic circuit of the propulsion wind tunnel at the Arnold Engineering Development Center at Tullahoma, Tenn. The vanes guide air flow around the 90° corners of the circuit to reduce turbulence and help maintain a steady flow of air through the test section. The circuit operates in Mach number range from about 0.5 to 1.6 at simulated altitudes up to and beyond 100,000 feet. [Arnold Engineering Development Center, U.S. Air Research and Development Command]

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Tax Exempt

The first Federal income tax law of 1913 recognized that institutions promoting scientific research were entitled to tax exemption. Since at that time scientific research was largely restricted to universities, which were also exempt on educational grounds, no special problems about the meaning of the word "scientific" for tax purposes arose and the word was, in fact, not defined.

The extraordinary growth in both applied and basic research in the intervening years has not been confined to the universities: numerous non-profit institutions, some of which are independent of university affiliation or control, have been founded to conduct contract research for government and industry. Their existence has led the Bureau of Internal Revenue to attempt a definition of what "scientific" means for income tax purposes.

A proposed amendment to the Income Tax Regulations (*Federal Register*, 24:9587, 1 Dec. 1959), which will probably be discussed at hearings in the Internal Revenue Service this month, sets forth the main criteria to be used in determining whether an organization shall enjoy tax exemption on scientific grounds. The major criteria are that the organization be operated primarily for fundamental research and that the results of that research be freely available to the public. Thus, an oganization will not be eligible for tax exemption if its primary aim is to do routine testing or applied research (unless such research is done for national, state, or local governments) or if it serves a private rather than a public interest. The overriding consideration is whether the research "is directed not toward promoting private gain, but rather toward benefiting the public."

The provision for free availability to the public means that the research results must not be subject to any restriction or proprietary rights and "are made available to the interested public in a practical manner and on a non-discriminatory basis." Any research done for a governmental agency will be considered freely available even though it may in fact be restricted for security or other reasons.

What organizations will be affected? Universities, hospitals, and organizations operated *primarily* for carrying on fundamental research that is freely available to the public will not be affected. If an institution meets this test it is exempt and the exemption includes income derived from applied research that is not available to the public.

The proposed ruling will thus affect those independent research institutions that are predominantly concerned with applied research, the results of which are restricted or controlled by those who pay for it. Many such institutions now claim exemption and they may be expected to marshal a strong attack against the proposed regulation. They will doubtless point out that their performance of research by contract for government and industry is in the public interest and that it is "scientific" for purposes of tax exemption. If the regulation nevertheless goes into effect they may appeal through the courts. If this fails, two courses will be open to them: they may either pay tax on that part of their income from research that is not exempt or perform enough basic research to maintain an exempt status.—G.DuS.



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