

AERONAUTICS

International Aviation Aided by New Standards

➤ WORLD-WIDE civilian air transport services will be safer and easier with the adoption in Montreal of five sets of standards by the Council of the International Civil Aviation Organization for the 47 nations, including the United States, represented in the association.

The standards approved include the licensing of pilots and crews, uniform aeronautical maps and charts, rules of the air, dimensional practices and meteorological codes. They have been sent to the member nations for consideration and it is hoped will be enacted into the legislative codes of each.

The first standard lays down the technical requirements and experiences necessary for pilots, navigators and air crews flying international routes. The second will assure maps and charts which all pilots and navigators will be able to use no matter where they may be. The third, the rules of the air, include general flight rules and right-of-way rules. They are the equivalent of road rules for ground motor vehicles.

The rules for dimensional practices are intended to do away with the present confusion caused by the use of both metric and foot-pound-second units in air-ground communications. The meteorological codes specify the various agreed systems used for the transmission of weather information.

Science News Letter, May 22, 1948

ELECTRONICS-AERONAUTICS

VHF Radio for Small Planes Transmits in Bad Weather

➤ NEW small radios for private planes that permit communication with airports in all types of weather were revealed by General Electric. They have an effective range of 50 miles over level terrain from an altitude of 5,000 feet.

The radio transmitting set, weighing less than three pounds is able to get a message through under bad-weather conditions because it operates at frequencies ranging from 121,500 to 122,900 kilocycles, relatively unaffected by thunderstorms and other climatic conditions. It uses less than one-tenth the power of a conventional private-plane transmitter, and is designed to take advantage of the six radio frequencies recently allocated by the Federal Communications Commission for personal planes.

Science News Letter, May 22, 1948

● Special Pre - Publication Offer to Readers of Science News Letter

THE method of rhythmical design presented by Joseph Schillinger links together on a mathematical basis music, design and all the graphic arts. In his method, Schillinger reveals the fundamental mathematical laws of structure underlying plant and animal life, and the applications thereof in the art forms of developed cultures of the past. In my opinion his achievement is a genuine and valuable contribution to the study of esthetics and to art education. Because the laws which he formulates are mathematically fundamental, Schillinger's method is applicable not only in the analysis of existing works of art and of musical compositions, but offers a definite and workable procedure for architects, painters, composers, sculptors, and designers in the industrial fields.

"While in no way interfering with or limiting the imagination and feeling of the artist, it replaces the 'trial and error' method with one that is logical, easy of application, and as precise and sound as the structure of nature itself."—*Prof. C. J. Martin, Teachers College, Columbia University.*

"ESTHETIC realities, states the original and intriguing mathematician, Joseph Schillinger, are in no way discontinuous with physical realities. Schillinger possesses for his affirmations and prophecies a base in technology and artistic experience. Bertrand Russell announces the gospel and Schillinger designs and constructs the machinery of its applications."—*Dr. Horace M. Kallen, Art and Freedom.*

THE MATHEMATICAL BASIS OF THE ARTS

By Joseph Schillinger

"THE AUTHOR'S goal is, in his own words, 'to disclose the mechanism of creatorship as it manifests itself in nature and in the arts.' We are convinced he has achieved that goal. All the arts, like Architecture, must be built. And toward their building—perhaps as a guide in their planning and certainly as a corrective of their creator's mortal error of execution, a knowledge of the MATHEMATICAL BASIS OF THE ARTS is of profound importance."—*Rockwell Kent.*

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