

Between the alternatives of a productive and happy future for mankind and the dread prospect of the utter annihilation of painfully won accomplishments of civilization lies only the power of an idea. That idea—international understanding through good will, intelligent co-operation, and reasonable mutual adjustments—has proved its worth in difficult and contentious fields. It is clearly set forth and urged for acceptance in the following guest editorial by Dr. J. H. Dellinger, Chief of the Central Radio Propagation Laboratory of the National Bureau of Standards of the United States, capable representative of his country at many international radio conferences, and a Past-President and Fellow of The Institute of Radio Engineers.—*The Editor.*

The Great Opportunity

J. H. DELLINGER

To be sure, the vast field of radio and electronics offers vast opportunity. It is the very symbol of progress. But there is a unique aspect of its potentialities which has not received sufficient emphasis. That is its opportunity to contribute to world friendliness, the prerequisite of world peace. This opportunity includes much more than broadcasting, which has long taken its place as a mighty enlightener and leveler of barriers between nations. High hopes were entertained twenty-five years ago, when the wonders of broadcasting were revealed, that this would be the means of achieving world-wide understanding. Its force in that direction is not to be underestimated, but it is not enough. To help in the present critical fight for world peace, we can offer, besides broadcasting, the special contributions of radio business and radio science, the physical nature of radio in its world-wide effects, and the very difficulties of control of radio interference. All of these involve powerful forces toward international collaboration, and we must consciously use them to that end.

Despite its constant repetition, people do not realize, at this juncture of world affairs, the awful need for real international understanding. The entire population of the world is now defenseless against destruction should war come again. There is no alternative: world collaboration has to be achieved. There is no simple and no single way. Every path must be followed and we must all do whatever we can. When Einstein forsakes his equations to preach this and this alone, the world should realize its supreme truth. When Haraden Pratt and Arthur Van Dyck forsake their business duties long enough to see what the atomic bomb can do and come out with the same answer (see what they said on page 933 of the PROCEEDINGS OF THE I.R.E., vol. 34, December, 1946), we radio men should stop and think what we can do about it.

We are privileged to work in a field which does promote international understanding. First of all, radio business and radio science provide unusually extensive contacts at the international level. With our electronic products we export not only goods but ideas and all sorts of personal contacts. The many ramifications of these activities likewise cause us to import the offerings of other countries. In all of this, radio men have the opportunity to display those principles of fair dealing and mutual respect which are a major ingredient of permanent peace among men.

The physical nature of radio phenomena requires radio scientists, engineers, and business men to think on a world scale. The establishment and maintenance of long-distance communication, of ship radio service, of navigation aids to the world's airways, require common action by men of different nationalities. The vagaries of radio transmission require world-wide collaboration and utilization of radio propagation data.

Radio simply could not operate without world collaboration in the control of interference. Radio waves recognize no national or other boundaries. We all use the same transmission medium and we cannot tune in the stations we want and tune out the ones we don't want without very detailed world agreements on the use of the radio spectrum. The preparation and revision of these world agreements provide an exceptionally fine demonstration of the possibilities of whole-hearted international collaboration. I have participated in many of them, from that of Paris in 1921 to the recent ones of Rio, Moscow, and Atlantic City. I know that men of all nations can work out together the most complicated and difficult problems, even with national sovereignties deeply affected, in the spirit of true friendliness and with complete success, for I have seen them do it. This process is going on even now: at Geneva, Switzerland, an international body of engineers and administrators is working the whole of this year to develop a new, improved assignment of the world's long-distance frequencies.

I may be pardoned for closing on a personal note. I have been especially fortunate in being associated with many aspects of radio science, engineering, and administration, and in being selected to serve as a representative of the radio engineering profession in some of them. I have seen the forces of good will at work between radio men of different nations. I deeply believe that these currents of good will and international friendliness are by no means negligible contributions to the happier world future.