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EDITORIAL CORRESPONDENCE: 1515 Massachusetts Ave., NW, Washington, D.C. 20005. Phone: 202-387-7171. Cable: *Advancesci*, Washington. Copies of "Instructions for Contributors" can be obtained from the editorial office. ADVERTISING CORRESPONDENCE: Rm. 1740, 11 W. 42 St., New York, N.Y. 10036. Phone: 212-PE 6-1858.

International Competition and Cooperation

World competition in technology is going to be a serious matter. To meet it, our best insurance is research—basic research to give the background and the leads for the future, and applied research to identify the feasibilities for development.

Of especial significance to our generation is the realization that man may be able to take giant steps to create a new world—steps that are unprecedented in range and in novelty. Many of these we do not have to take, but we shall. This raises in new guise the problem of survival—survival in the presence of an environment we ourselves create.

How are we to meet this challenge and responsibility?

The history of science teaches that the survival of a species depends fundamentally upon striking an effective balance between two conflicting elements, competition and cooperation. In human affairs we seem thus far to have found that the most effective balance lies in a free, democratic society.

The limits of accomplishment of such a society rest ultimately upon the capabilities of the individuals composing it, their ideals, their standards of conduct, character, motivation, intelligence, and increasingly, in this modern age, upon their knowledge.

As the distinguished mathematician and philosopher, Whitehead, remarked 50 years ago, "In the conditions of modern life the rule is absolute—the race which does not value trained intelligence is doomed."

These are strong words, but they are still prophetic.

Science will continue to bring to light research or development programs of greater and greater import for mankind. These will be impressive, but some will also be very expensive. If we fail to undertake them we jeopardize our position and our opportunities for leadership among the progressive nations of the world. If we do undertake them we shall then have the choice of financing and manning the effort alone, or enlisting the cooperation of other nations. In view of the global character of some of these ventures, their extreme cost, and their possible social implications, we should give increasingly serious consideration to this latter alternative—taking the lead for collaboration among nations.

A special situation in which international cooperation appears to be the only rational solution is one where the magnitude of the effort is inherently very great and where the consequences of experimentation are uncertain or possibly dangerous. If such enterprises are carried out in blind competition, they partake of the nature of "crash" programs which are expensive and wasteful. Furthermore, if the results of the research indicate the possibility of large-scale experiments that might involve the risk of altering the earth's environment, it is essential that the best minds available in all countries be brought to bear upon the problem. Some aspects of space exploration and research into weather modification are prime examples. No large-scale experiment or development should be attempted without the most careful research and every reasonable effort to anticipate its consequences, since it is possible that the sought-for effects might spontaneously amplify to highly dangerous proportions. For all these reasons it is of the greatest importance to move in the direction of increasing international cooperation in science and, where feasible, in development and technology.

If we can help all men to acquire the knowledge that leads to understanding, we may hope to attain the wisdom needed to face the future with confidence.—ALAN T. WATERMAN

[Adapted from a statement to the Republican Platform Committee]