Editorial

Science and optimism

Optimism is the morality of science. Thus, we are emboldened to venture an optimistic perspective for this battered republic's future despite the unmitigated mess in our public affairs at this time. The source of our optimism is a string of exciting legislative developments in the U.S. Congress in promoting the development of thermonuclear fusion energy, developments which, if they conclude successfully, will shape the course of human history.

A few weeks ago, the House of Representatives passed by an overwhelming vote the McCormack bill, which provides for the full-scale commercial development of fusion reactors by the year 2000. During this past week, a similar bill in the Senate, dubbed the Tsongas bill, passed through committee and is heading for a floor vote during this coming week. If the effort is expedited as it deserves, the bill will be at President Carter's desk for signing not later than the first two weeks of October.

We strongly urge every responsible American to mobilize every ounce of influence he or she may have for the purpose of ensuring the passage of this bill into law this October.

For the ordinary, informed layman, commercial fusion energy production means the cheapest possible form of clean energy which utilizes the inexhaustible resource of deuterium found in seawater. It also means access to virtually inexhaustible mineral supplies by menas of applying the extraordinary temperatures of a fusion torch for ore reduction.

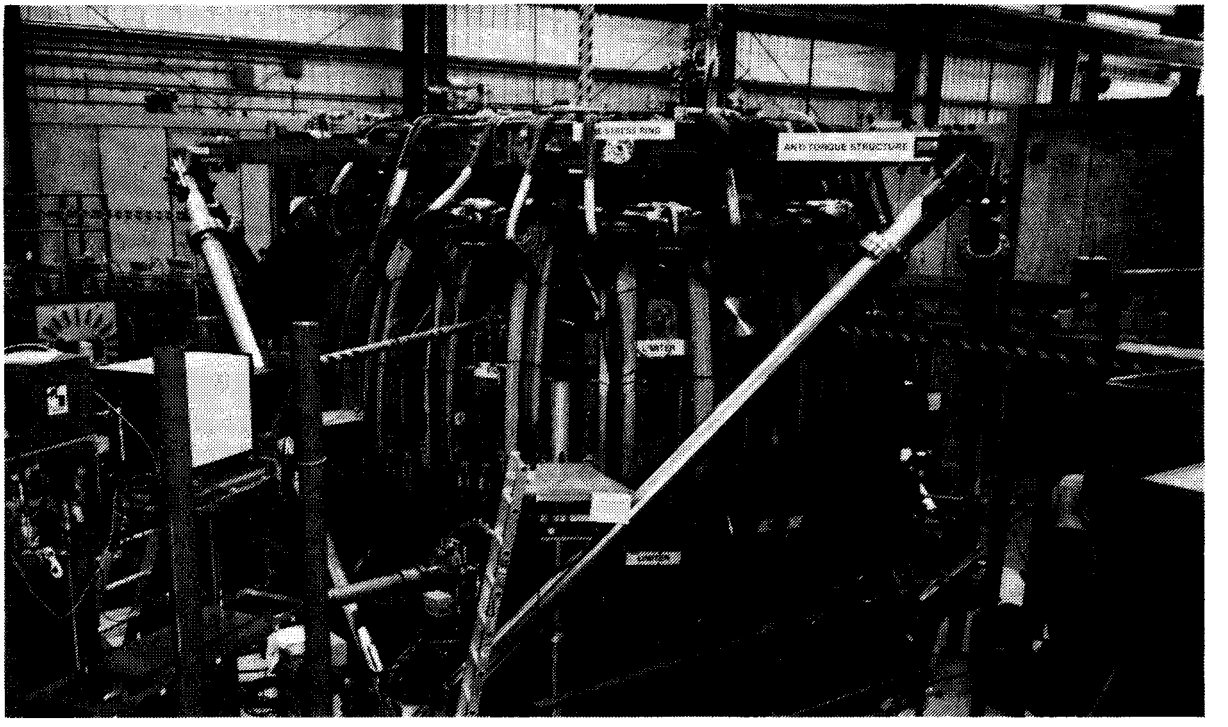
Wonderful as these possibilities are for ensuring a meaningful and rewarding future for mankind, they merely represent only the secondary benefits to be derived from an all-out mobilization of our scientific capabilities toward the attainment of a fundamental breakthrough in fusion energy research.

In any well-ordered republic, such as ours is not at the present time, the management and administration of public affairs depend on the wise husbanding of the three basic ingredients that make up social life: The human resource, in the sense of the ability of human ingenuity to master and advance further science; the material resource, in the sense of raw and man-improved materials; and the overall energy resources. Thus, the ordinary observation one is compelled to make about fusion energy is that, once achieved, it will tend to put at man's disposal a virtually inexhaustible supply of raw materials and energy supplies. That however, must only be seen as the crude basis upon which mankind can now be called upon to build a worthy and noble course for itself in the centuries to come.

The scientific vistas, both in theoretical and applied science, that will open up for mankind with the advent of fusion energy wil provide the basis for a dramatic advance in the quality of society's single most important resource, its resource of human ingenuity. Our colleges and universities ought to once again be swept by the great spirit of scientific adventure.

The fusion energy bills now before Congress must soon be complemented with additional programs to fund and promote the creation of a new generation of scientists who wil receive the training required to tackle the major issues of fundamental research in plasma physics, Riemannian mathematics, astrophysics, biology, etc., which will occupy our nation's attention in the decade ahead. Once that first generation of fusion-era scientists comes on line, we shall, for the first time since the NASA program, have the basis for opening up for consideration the role that this nation can play as a leader capable of guiding mankind, in the course of the 21st century, into an age of reason and science.

It is ironic, of course, that this imminent legislative breakthrough in the matter of the McCormack bill is occurring during this very ominous period in international developments. The Carter admnistration and its international backers have



painted, in the President's Report on the Year 2000, a bleak and desperate future for humanity, based on a perspective of zero economic growth, zero population growth, diminishing material resources, diminishing energy supplies, and religious fundamentalism all over the world.

On the basis of this fundamentally antiscientific perspective, the Carter administration and its sponsors are developing a diplomatic and military strategy of confrontations and conflict. The National Security Council, the prestigious International Institute of Strategic Studies, all the leading bodies of the NATO organization, are projecting "resource wars" in virtually every part of the developing sector for the 1980s. The Carter administration is pressuring our European allies to agree to an extension of NATO's area of jurisdiction beyond the European continent and into the Third World in order to thus prepare the West to fight wars over energy and raw materials supplies. This military posture derives from a criminal commitment to a zero-growth, antinuclear energy, antiscience perspective that leading elements of the country's political elite are committed to.

Admittedly, the nation has been committed far too long to this policy, and the policy instruments of the Republic have been far too deeply compromised in the eyes of the world by this policy. The reason why we are so close to world war now, and the reason why our national economy is going through its present convulsion, is directly the zero-growth, pro-environmentalist, antiscience outlook that has been dominant in the last 15 years. Replace this outlook with a science-oriented perspective and we can rapidly reverse the march toward world thermonuclear holocaust and replace the present domestic economic decay with an economic mobilization of national enthusiasm, resources, and talent that has rarely before been seen. Such a prospect is possible.

The fusion energy bills now before Congress are capable of acting as the bootstrap to get us out of the impasse. We heartily encourage our readers and friends to spare no effort, to leave no stone untouched, until these bills are made the law of the land.

The Doublet III tokamak. Photo: General Atomic Company