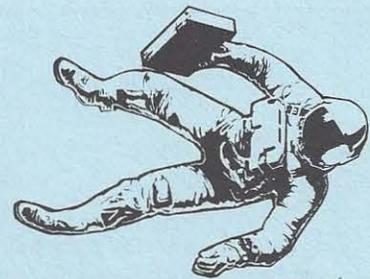


THE
**COMMERCIAL
SPACE REPORT**



PUBLISHED MONTHLY

Gary C. Hudson, Editor

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Dear Subscriber:

March, 1981

With the winds of change blowing through Washington, we have devoted the last two issues of The Report to the political options of the new Administration. How these options are excersized will profoundly effect the future of American activities in space. Both the public space program and the various private projects underway have an opportunity that has not existed in over a decade and may last no longer than the next four years: a Republican President and a Republican Senate with an abiding desire to reassess government expenditures, ease government regulation of business and reaffirm American technological and industrial know-how.

Having already spent a significant amount of time on recommendations for NASA expenditures, I would like to take a little more for some specific recommendations that would benefit private enterprise directly, both space related and non-space related, and not cost the taxpayers a penny. It seems that anyone who is literate and belongs to a service organization has been involved in drafting recommendations to the various Reagan transition teams. Consequently, I have no idea whether anyone will see these or if they will appear in any other final documents that cross Mr. Reagan's desk. I believe they are important enough to warrant an airing here. As the new Reagan policy begins to appear in the coming months we will be reporting on the responses to the various options that have appeared here and how those responses will effect American space activities. And in deference to our less politically inclined readers and the inclinations of the Editor, we will get back to discussions of new ideas and technologies for opening the space frontier.

The "New Beginning" promised by Mr. Reagan is already causing controversy at many levels of Society as proposed cuts in social programs cause re-evaluation of the functions of government. Discussions of possible directions for the Reagan Space Policy have become no less controversial. Having attended countless study groups, meetings and conventions over the years, it has not been surprizing to me to find battlelines drawn within the various NASA centers and Aerospace Companies over recommendations for a new executive space policy. Mr. Stockman, however, has not shared these experiences. His surprise at finding a house divided in as cohesive sounding an endeavor as The United States Space

Program is already in evidence. Finding a lack of consensus on the priorities of new missions in Space Science and a Space Transportation System that is four years behind schedule and \$2 billion over budget, Mr. Stockman has proposed budget cuts that could profoundly change the structure and future of NASA.

The NASA charter specifically directs the agency to do research and development, not to run a commercial Space Transportation System. The decision to build the Space Shuttle was predicated on the understanding that it would serve as a platform for new scientific research utilizing the capabilities of human beings in orbit and expand capabilities for planetary exploration. Yet the majority of proposed cuts to the 1982 budget are in the Office of Space Sciences and most severe in new starts for planetary exploration missions.

These cancellations and delays follow from Mr. Stockman's desire to hold down increases in spending while allowing the U.S. to "finish what it has started" on the Shuttle program. The long range implications of such a policy aside, Mr. Stockman's priorities for budget cuts may place NASA in a position it has never wanted and cannot by its very charter be put in, that of a launch vehicle service. That may be all it has left to do, and at that fulfilling only planned missions already on the books. The proposed delay in the production schedule of the 4th orbiter and cancellation of funding for a slow start on the 5th puts even this function in jeopardy.

In the final analysis, the effect of these proposed cuts will be to cancel the future of the civilian Space Program just when the results of the Viking, Voyager and Pioneer missions have begun to make America proud of its achievements again. To date, all the other recommendations to Mr. Reagan that I am aware of have advocated a view point quite different Mr. Stockman's. New starts and new goals have been proposed that are predicated on the understanding that space has more to offer than pride in achievement and an unbalanced budget. They are based on recognition of the effects space activities have on the national economy and new technological developments. They take a more long range view of the value of space than political expedience. Unfortunately, Mr. Reagan has a job to do and whether he is in a position to take recommendations from a long range view point that involves immediate increases in government spending at any level remain to be seen. Mr. Reagan, however, is a visionary and a businessman who can understand such payoffs. We wish the authors of these NASA recommendations much good fortune in their efforts.

Ironically, in all the recommendations I have read or taken part in, almost no mention has been made of private, commercial initiatives in space. I say ironically because Mr. Reagan is the first American President in many years to have a well known personal philosophy that is pro-private enterprise, pro-capitalism

and against unreasonable regulation of American business, especially small business. As long as everyone else is giving Mr. Reagan their two cents worth on "what to do about space" I asked myself and a few colleagues what Mr. Reagan could do to encourage American business and the private sector to begin to exploit the space environment for commercial purposes. The answers were surprisingly cheap, the cost of introducing and supporting three pieces of new legislation. The result could be the opening of space to American industry and the reestablishment of American technological leadership. I take no credit for any of these ideas, just for asking the question.

Mr. Reagan has recognized the need to stimulate American business productivity to help curb inflation and narrow the gap between American innovation and technology and that of Europe and Japan. A lesson to be learned from such technological leaders as West Germany is the stimulation that tax credits on high-risk, high-technology investments have on encouraging development of capital sources for new business. The scarcity of capital for new starts that has resulted from prohibitive tax regulations in the United States has been a major factor in the steady decline of U.S. innovation. That such a tax credit could stimulate private space activities is already evidenced by the success of OTRAG.

The state of Bavaria in West Germany allows a tax write-off in excess of 100% on investments in high-technology businesses. This tax write-off allowed OTRAG to attract more than \$60 million to begin development of low-cost orbital transport. Such tax credits could stimulate a wide variety of activities in the United States in speculative new technologies and help put the country back on its feet.

While such a tax credit in the 100% range might be too new an idea in the United States, a credit in the 40% range such as that already allowed on solar power production projects would be effective and sufficiently similar to existing legislation to be enacted quickly. The ultimate effect of such a tax credit would be the creation of new industries and could be the stimulus to begin the Third Industrial Revolution.

Another European example that could provide a model for legislation in the U.S. is that of the Economic Development Region. The Republic of Ireland and other European nations have had great success in attracting new business, creating jobs and stimulating economic development in underdeveloped or depressed regions by declaring tax moratoriums on profits on the initial sale of goods and services produced in these regions. These tax moratoriums are usually for a fixed period of time, for example the tax moratorium enacted in 1965 on the western coast of Ireland which expires in 1990. Such tax freedoms allow pioneering companies to attract capital investment and plow profits back into expansion, new product development and research. By

attracting businesses to a new region, the local economy benefits from the purchasing power of these companies and the new jobs created lower unemployment.

Space is certainly an underdeveloped "region" with great potential for new products and services. A tax moratorium beginning in 1981 and lasting until the year 2000 on profits from the initial sale of space based products and services could provide the stimulus to make many projects now on the drawing board a near-term reality. The many companies who have expressed an interest in, for example, materials processing or space based manufacturing but have tabled active participation due to high start up costs and high risks would be in a position to re-evaluate the economics of space based activities. The stimulus to communications and other service industries would be equally enormous. In addition, as new products and services entered the market, new ground based industries would spring up to support the space based. At the end of the moratorium, the government would find itself with a mature new set of highly profitable industries and a greatly stimulated economy well on its way to the Third Industrial Revolution, especially if combined with a tax credit on initial investments to generate highly speculative new starts.

And last, but hardly least and certainly the most controversial, Mr. Reagan could announce our intention to withdraw from the 1967 Treaty on Principles Governing Activities of States in the Exploration and Use of Outer Space. This compromise between the U.S. and the Soviet Union places several limitations on private companies such as requiring "authorization and continuing supervision by the appropriate state party to the treaty" and establishing the state from whose territory an object is launched as internationally liable for third party damages. These requirements are without parallel in the private sector. Despite the fact that enabling legislation has never been passed regarding the 1967 Treaty in the U.S., it has chilled the investment environment for private corporations interested in financing space activities. The Treaty does not take into account the rapid change of technology nor does it reflect a nation's changing economy. A withdrawal from the 1967 Treaty and a review of the Registration and Rescue Conventions would be a signal to American industry and the world that the new administration supports commercial activities in space and the attendant economic benefits the country would derive from such activities.

Until Next Time...

Gary C. Hudson

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