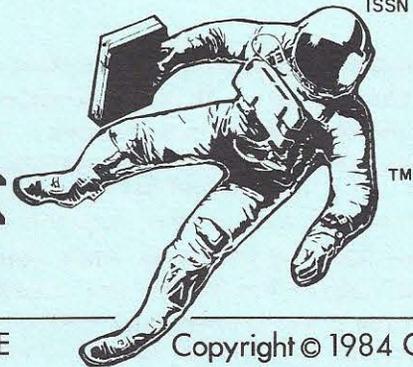


# THE COMMERCIAL SPACE REPORT

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A MONTHLY NEWSLETTER ON FREE ENTERPRISE IN SPACE

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Dear Subscriber:

Recently I received the text of a speech by James Beggs, administrator of the National Aeronautics and Space Administration, scheduled to be delivered at Syracuse University April 5, 1984.

Major subjects discussed in the text were the Space Station proposal and private sector involvement in space and space-related activities. An analysis of NASA's \$8 billion Space Station concept appeared in the February, 1984 C.S.R., and no further treatment will be presented here. What about NASA's views on private enterprise in space?

NASA would like to "encourage American industry...to move quickly and decisively into space." (quotes herein are from the text of Beggs' speech.)

It sounds good...until you examine exactly what steps NASA has in mind to accomplish this. The agency looks forward to a "partnership between government and private enterprise" working within a "permanent infrastructure for the economic development of space."

"On the financial side, we will continue to offer reduced-rate space transportation for high technology endeavors....We will also provide seed money to stimulate commercial space ventures..." This "seed money" would be in the form of grants ranging from \$4 to \$5 million each. NASA expects to spend \$50 to \$100 million on such grants.

To be precise, NASA wants to jump into the private sector with both feet, in one hand a fistful of free or bargain-rate Shuttle flights and in the other a bag of money to pass out to promising endeavors in space industry.

I submit that this approach is a disaster. While government persecution is recognized as the bane of private initiative, it is equally true that government "help" can be just as stifling. Ironically, many in NASA may honestly think they are doing the right thing for free enterprise, and may find my objections baffling.

In fact, few people in Washington (or elsewhere) comprehend why what they consider an extremely benevolent attitude strikes dread into the hearts of those devoted to private enterprise, free trade, and the entrepreneur. When the so-called "Atari Democrats" offered government largesse to the new and growing industries of Silicon Valley, they could not understand why the heads of these bright new companies just were not interested. The idea of anyone not wanting government assistance is completely alien to the typical bureaucrat. Why, many of the big, established industries jump up, lick their chops and dribble whenever the Federal bone is held out. What is the problem with these entrepreneurs anyway?

Allow me to explain, while continuing commentary on other parts of Beggs' talk.

Whenever a government tries to take an active part in an economic activity, it screws things up. It's as simple as that. The Law of Supply and Demand will assert itself under any circumstances, and, if anyone tries to force it or circumvent it, the results will be the same as they always are when one puts a penny into a fuse box.

The United States has achieved its present status as the most technically advanced nation on Earth not because of, but largely in spite of the fumbling (even if sometimes well-meaning) efforts of state and national governments.

Beggs apparently does not believe this. Quoting Bertrand Russell, he states that "'In our complex world, there cannot be fruitful initiative without government, but unfortunately, there can be government without initiative.'" The gist of this statement seems to be that without the benevolence of the State, human invention and striving are impossible. The only problem, apparently, is that the State is not getting on the ball fast enough and passing around those big, juicy bones.

Beggs also brings up historical examples of government aid to industry, seeking to "draw a brief analogy between what government is doing to open space to private investment and what it did to foster development of our highway and airport and airways systems and our railroads."

"The key to development of all transportation modes in the United States has been a publically-funded infrastructure."

"For the railroads there were land grants..."

Yes, there were. Land was often forcibly removed from its owners by eminent domain, and bequeathed to certain fortunate companies, along with other goodies such as monopoly privileges, subsidies, loans, and state and municipal bonds. The result was the creation of obese monopolies such as the Big Four of the Central Pacific (circa the late 1800s) whose corruption is somehow remembered now only as examples of the evils of "big business." On top of this the government eventually tossed in the Interstate Commerce Commission, which nearly obliterated the entire industry. However, we're not discussing regulation here, only government "aid," which in point of fact amounted to only about ten percent of the cost of all the railroads in the country.

"For the highways, there were Federal and state funds, with the Federal Government paying the lion's share; and a system of user taxes."

Initially, many roads in the U.S. were toll roads, self-supporting. With the advent of the automobile, there was pressure on the government from the auto industry and automobile owners' associations to create a system of publicly-financed highways to accommodate the expanded wants of the new car owners. This was eventually done, and roads were then financed by the government.

In spite of the fact that gasoline taxes fund much of the direct cost of road construction, road use was effectively separated from direct payment, and highways and roads became, in the eyes of the public, an entitlement rather than a perceived cost. A seemingly limitless supply of roadways, built by the power of eminent domain and the tax, encouraged growth in the number of automobiles to the point where even car lovers are feeling that there are too many roads and too many drivers on them. The number of automobiles presently in existence is probably far larger than would have resulted had the true costs of automobile travel been allowed to reach the consumer. A more balanced system of road, rail and effective mass transit would probably now exist, and it would have arrived naturally, by free market choice, rather than by the coercive methods governments are presently attempting to force drivers out of their cars and into less-than-effective mass transit systems.

"The commercial air transport industry got off the ground in the 1920's with the government-run postal service as its sole customer."

In 1929, Herbert Hoover appointed Walter F. Brown Postmaster General. At the time, the new airline companies were, as Beggs says, dependent upon postal contracts for their existence. Brown made use of this, and set out to recreate the airline industry to his own specifications. By awarding and denying contracts, assigning routes to selected companies, and circumventing the public bidding process, Brown's chosen companies and routes thrived, while other airlines were driven into forced mergers or oblivion (even though some offered lower bids for their services).

Eventually, the Federal Government was forced to call a halt to this. Brown was removed from office. All air mail contracts with private carriers were cancelled in February of 1934, and the U.S. Army flew the mail for three months until, starting with a clean slate, private carriers were once again allowed to bid on postal air routes, long after the damage was done.

Numerous other examples of government "benevolence" exist, not mentioned by Beggs: some which come to mind are the phone industry, radio and television, and the nuclear power industry (for specifics, see Robert Poole's article, referenced on page 4). In all these cases, the government was trying to help, not hinder, but the damage to an industry, which sometimes took years to appear, was still the same.

Now, the space industry is next. What would be the outcome of NASA's policies applied to private space endeavors?

The Space Shuttle is heavily subsidized, with real costs being over twice what NASA charges or will charge for a flight. This has the net effect of crowding out existing competitive launch systems and discouraging investment in new launch systems. Startup companies for commercial launch systems are hungry for investment, their concepts for low-cost space vehicles dying on the vine while NASA insists that the Shuttle is the only way to go.

A litmus test for NASA's commitment to free enterprise...see what happens to a company which, instead of approaching the agency with an industrial project or other Shuttle payload (which NASA will greet with open arms), comes forward with a launch vehicle to compete with or even underprice the Shuttle.

The aforementioned "seed money" will also have a detrimental effect. Money awarded to certain companies is a hand up for those companies which their privately-financed competitors will not receive. All else being equal, the companies which will tend to succeed in the short term will be those "seeded" by NASA. It goes without saying that NASA's criteria for selecting these companies will be based on the agency's own interests. NASA would of course bestow the most favor upon those projects that fit well into its planned universe of the NASA Space Shuttle and Space Station, and make heavy use of both. Others need not apply.

Yet Beggs can still state that "government should not be the overall judge of a project's feasibility or impede private efforts to undertake commercial space ventures." How else will the selection be made of who will receive government benevolence, and who will not? The very process implies a judgement...one that will be made, as in the past, based on politics and not economics.

Many commercial space endeavors are relatively new, and the temptation of taking government money for startup funds is enormous. As in the past, the consequences of such actions are usually not immediate, while the apparent benefits are. The possible long-range effects of government activities in space must be remembered--to say nothing of the morality of using taxpayer money to support a private endeavor.

The private space industry must be encouraged to rely on its own resources, and avoid government gifts. The strings attached are not easily seen, but they are extraordinarily strong.

#### References and Recommended Reading

Robert Poole, "Free Space!," Reason, April 1979, pp. 24-27, 33. (A version of this article also appeared in the Commercial Space Report, October and November, 1979.) "Free Space!" deals with much of the history of government "aid" to industry. The back issue of Reason in which this article appears contains other articles on free enterprise in space, and can be ordered for \$2.00 from the Reason Foundation, P.O. Box 40105, Santa Barbara, CA 93103. Reason magazine, edited by Poole, (\$19.50/year) deals with issues of individual liberty and is highly recommended.

Ayn Rand, Capitalism, The Unknown Ideal, (The New American Library, New York). An excellent collection of papers, one of which ("Notes on the History of American Free Enterprise") deals briefly with the rise of the railroads in the U.S.

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#### Administration Tax Proposals to Assist Space Industry

There is one way in which government can, and should, assist new industries. That is not by attempting to help them along, but by merely removing obstacles which the government itself has set in the road, such as onerous regulations and taxes.

Therefore, tax relief proposals for the space industries by the Reagan Administration are to be encouraged. Details of these proposals are being worked out now, but they will probably include:

- Extension of a 10% investment tax credit to space ventures
- A 25% tax credit on space-related research and development
- An accelerated depreciation of certain equipment of from one to three years.

By opposing the use of taxpayer funds to underwrite selected companies, and supporting the removal of tax burdens from the industry as a whole, the private space industry can follow a consistent, "laissez-faire" policy which will, in the long run, be the best for all.

#### Shuttle Boss Assigned to Head Space Missile Defense Project

On April 15, Lt. Gen. James A. Abrahamson will become Director of Strategic Defense, a new position in the Department of Defense reporting directly to the Secretary of Defense. Abrahamson will oversee the Reagan Administration's investigation of a strategic defense system incorporating space-based weapons, now unfortunately universally referred to as the "Star Wars" concept. (Where are George Lucas' lawyers when you really need them?)

Abrahamson was previously Associate Administrator for Space Flight at NASA, and has headed the Shuttle program since the second Shuttle launch in November of 1981. He will be replaced at NASA by Jesse W. Moore, who had previously worked under Abrahamson as Deputy Associate Administrator for Space Flight.

It's not certain how the appointment of Abrahamson, a Shuttle program veteran, will affect the rapid development of an effective strategic space-based defense, if at all. There is already considerable pressure from certain corners to transform the concept into another "pork mine" for legislators, bureaucrats, and the aerospace

industry, similar to what the Space Shuttle, to a large extent, became (and what the U. S. Space Station may yet become).

There may be little that Abrahamson could do about this, whether or not he is so inclined. Shuttle costs did not decline noticeably while he was in charge. It remains to be seen what will happen to space-based defense under his command. In the meantime, it is relatively simple to tell if an idea is turning into a government funding bonanza. Watch for these telltale signs of a potential Pork Mine:

- Heavy promotion of high-tech, high-cost, long-term, gold-plated solutions (i.e. X-ray lasers, proton beams, the Starship Enterprise, etc.) while ignoring low-tech, short-term ideas (i.e., the kinetic weapons of the High Frontier system and low-cost, ground-based kinetic defenses).
- Zeroes mysteriously adding themselves to the tail end of budget estimates.
- Years mysteriously adding themselves to the lead time for an operational system.

It may already be too late. Present total cost estimates for "Star Wars" run to one trillion dollars. That's \$1,000,000,000,000 folks. If you laid that number of dollar bills end to end they would reach from Earth to the planet Mars--and back. Of course that's when Mars is in conjunction with Earth, so maybe it's not so much money after all. As far as lead time goes, the system is not expected to be fully operational until the year 2000. Excuse me if I don't hold my breath.

#### Second Starstruck Launch Attempt Scrubbed

A second try at launching Starstruck's Dolphin rocket was cancelled when electronic failures occurred soon after the vehicle was deployed into the water. The failures were believed to have been caused by salt water seepage into external electrical fittings.

Although the launch attempt was made only 100 miles out this time, seven-foot swells hampered the operation. The launch cradle, on which the rocket is deployed and recovered, came loose from its moorings and went to the bottom along with most of the hydraulic crane it was attached to. The Dolphin rocket, although undamaged, could not be lifted back aboard the launch ship and had to be towed back to port.

The Dolphin was returned to Redwood City, California for repairs, and another launch will be attempted in the next few months.

#### Cyprus Corporation Investigating Purchase of Fifth Shuttle Orbiter

Astrotech International, a subsidiary of Cyprus Corp. located in College Park, Maryland, has submitted a proposal to NASA to open discussions relative to the purchase of a fifth Space Shuttle orbiter. Currently NASA estimates the cost of such an orbiter at about \$2 billion.

Space Enterprises, Inc., a subsidiary of William Sword & Co., Princeton, New Jersey, withdrew a similar proposal late last year and is no longer pursuing acquisition of a fifth orbiter. Space Enterprises is still seeking other opportunities in commercial space.

In related news, Astrotech plans a grand opening of its Shuttle payload processing facility located near the Kennedy Space Center in Titusville, Florida. The event, scheduled for April 5th, will begin the operation of the first private payload processing facility in the United States.

A name change for Cyprus will be discussed at the corporation's annual meeting which will be held later at the Astrotech facility. Cyprus proposes taking the name "Astrotech International" for the entire corporation. The present Astrotech subsidiary would be renamed "Astrotech Space Operations, Inc."

#### Ariane Wins Intelsat VI Launch

The International Telecommunications Satellite Organization has selected the European Space Agency's Ariane 4 launch vehicle to orbit one of the five planned Intelsat VI communications satellites. Cost of the launch is expected to be about \$53 million in 1984 dollars.

Competition for these satellites has been fierce between Ariane and the Space Shuttle, which has already landed the first two Intelsat VI launches for itself (C.S.R., July 1983, pp. 1-3).

On March 4, 1984, Ariane successfully launched an Intelsat 5 F8 satellite. This was its final flight before the Ariane launch vehicle is turned over to Ariane-space, the commercial marketing and management organization which will handle Ariane launches from now on. The Intelsat VI contract will be handled through Arianespace.

#### Correction

In last month's issue, the Conestoga II was mentioned as having a payload to polar orbit of 100 lbs. The correct figure is 1000 lbs.

#### Note to Readers

Some questions have been asked concerning C.S.R. policy on its mailing list and on advertising. The mailing list is neither sold nor given away, and remains confidential. As to advertising, no paid advertising is accepted. The text of the Report will often contain a short piece on space-related conferences, publications, etc., and occasionally, brochures will be included with the newsletter mailing. All of this is done without charge (unless a brochure requires extra postage), and at editorial discretion. Generally, if you see something plugged in these pages, it is because I recommend it. Information on conferences, etc. that may qualify to be included in the newsletter is welcomed. Including brochures with a newsletter mailing must be arranged ahead of time, and is not recommended except where there is too much information to include in the text of the newsletter.

Incidentally, comments or criticisms are encouraged...they are important sources of information on what readers want in the way of news, newsletter format, etc.

Until next time,

*Tom Brosz*

*The Commercial Space Report (C.S.R.) is published monthly, and endeavors to report and analyze developments in the field of private initiatives in space transportation and exploitation.*

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