

June 6, 2002

Honorable Pete V. Domenici  
Ranking Member  
Committee on the Budget  
United States Senate  
Washington, DC 20510

Dear Senator:

You requested a cost estimate for a draft version of the "Commercial Reusable In-Space Transportation Act of 2002," which may be added as an amendment to S. 2514, the National Defense Authorization Act for Fiscal Year 2003.

In estimating the budgetary impact of this language, two subsections are most relevant:

Subsection 3(g), Credit Instruments

With a recent modification, this section would authorize the appropriation of up to \$1.5 billion in subsidies for direct loans to eligible U.S. commercial enterprises for purposes of producing commercial reusable in-space transportation services or systems. Such systems would, for example, provide a means to move satellites from a low orbit to high orbit, to correct erroneous satellite orbits, or to recover, refurbish, or refuel satellites. We estimate that, if the necessary funds are appropriated, the resulting outlays would occur over the next several years, beginning in 2004.

Subsections 3(c), Limitation on Loans Guaranteed, and 3(d), Credit Subsidy

Subsection 3(c) would authorize the Department of Defense (DoD) to guarantee a loan to a commercial provider of in-space transportation services or systems provided that the subsidy cost of such a guarantee is offset by a fee collected from the borrower. In-space transportation systems do not exist

today, and there is no demonstrated, reliable equipment to provide such services. Consequently, the commercial demand for any such service will be highly speculative until both the performance and price of the technology have been demonstrated. Based on information from the National Aeronautics and Space Agency (NASA), DoD, the Office of Management and Budget (OMB), and aerospace firms, CBO expects that the subsidy cost of a loan guarantee made for these purposes would be very high, well in excess of 50 percent, if the estimated subsidy cost only reflects projected revenue from commercial customers over the life of the loan. OMB has indicated that it would assign a very high subsidy rate (in the vicinity of 100 percent) to such guarantees. CBO expects that the resulting fee would make a loan guarantee unattractive for firms interested in this enterprise and that no loan guarantees would be issued. Assuming that OMB would follow this approach, CBO anticipates that the program would not be implemented and thus would have no effect on direct spending.

It is possible, however, that DoD and OMB could implement this legislation differently. While the commercial sector may be very wary of the risks involved with such a system, the government has recognized a need for such a service for its own satellites. OMB may choose to consider the demand for such services from the federal government when it calculates the subsidy cost of a loan guarantee for commercial in-space transportation providers. In this situation, the agency could assign a much lower subsidy cost to a loan guarantee that would be attractive to private firms interested in developing these transportation systems. If, as is likely, the government were to be the primary (or perhaps sole) initial user of the system, this arrangement would, in effect, allow the government to finance the acquisition of such transportation services by borrowing from the public through the commercial firms developing this technology. The government would thus bear much of the cost of the system either by having to pay off the guaranteed loan or by paying for use of the system from funds appropriated to government agencies.

There is a precedent at DoD for using such borrowing arrangements to make use of capital assets. DoD has used loan guarantees to finance at least four military housing projects, at least two of which are located on a military base. OMB has recorded subsidy costs of about 6 percent for such projects, largely reflecting the risk that the government could close the base. As explained in previous CBO estimates for that program, there is little or no viable private market for housing units on military bases because of security concerns. In

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CBO's view, such loan guarantees have allowed the government to finance the acquisition of facilities or services by borrowing from the public through the commercial firms. Loan guarantees for a space transportation system could serve a similar function, particularly since DoD has shown some interest in developing such systems, which were identified as an element of possible approaches to meeting U.S. spacelift needs in a recently issued DoD mission need statement. According to the standard principles of federal budgeting, obligations should be recorded that reflect the full amount of the government's financial liability when the government makes such a commitment, and outlays should be recorded as the systems are constructed. In the case of this legislation, those principles would result in direct spending equal to the full cost of the project(possibly \$1 billion or more) over the next several years.

Given the very limited information CBO currently has about the potential future operation of the program and the very limited information CBO has from the current Administration about its intent and interest in the program, CBO does not have a firm basis to indicate that the guaranteed loans would be issued with a fee that would be viable for the borrowers. If they are, however, the probability is significant that much of the cost would ultimately be borne by the government.

Sincerely,

Dan L. Crippen  
Director