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WASHINGTON, D.C. 20548

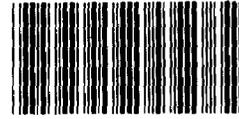
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MAY 9, 1980

The Honorable Joseph P. Addabbo
Chairman, Subcommittee on Defense
Committee on Appropriations ° 0302
House of Representatives



112313

Dear Mr. Chairman:

Subject: [Does the Department of Defense Need a Dedicated System of High Altitude Satellites To Meet Its Strategic Communications Requirements for the Next Decade?](LCD-80-59)

5 Your October 16, 1979, letter requested that we review the Department of Defense's justification for the Strategic Satellite System Program. Our findings, conclusions, and recommendations are summarized below.

35 In our opinion, Defense's requirement to initiate development of a new, dedicated system of very high altitude satellites called Nuclear Forces Communications Satellites (or referred to now as STRATSATS) has not been adequately justified. Our review shows that (1) the threat against our future strategic communications satellites has been apparently misinterpreted by the Department of the Air Force and (2) the upgrade of the present Air Force Satellite Communications System to meet the future strategic communications requirements is both a viable and more cost-effective approach.

The Defense decision to begin developing STRATSATS was based on the results of the Defense Systems Acquisition Review Council's review which was made in January 1979. The Air Force maintained that a system of very high altitude communications satellites (STRATSATS) would frustrate any enemy attempt at an anti-satellite attack against those resources. Also, a maneuvering capability would be added to the STRATSATS as an added dimension against physical attack. In addition to this physical survivability, the STRATSAT system would provide enhanced communications and anti-jamming capabilities over those of the present Air Force Satellite Communications System.

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During its review, the Council assessed the merits of STRATSAT and two alternatives. These alternatives were the minimal improvement program and the maximum upgrade program. The Council concluded that the new, dedicated STRATSAT system was the best and least costly way to meet the future strategic communications requirements.

We found, however, that the physical threat to the survivability of our strategic satellites was apparently misinterpreted by the Air Force in its justification for the Council's review, and the upgrade of the presently approved system of satellites was both a viable and less expensive approach. Therefore, in our opinion, the Defense decision was based on erroneous information and, consequently, should be reconsidered.

The life cycle costs reviewed by the Council showed that the STRATSAT system would cost about \$1.4 billion, the minimal improvement program would cost about \$1.8 billion, and the upgrade program would cost about \$2.4 billion (all fiscal year 1978 dollars). The latest Air Force estimate for the STRATSAT system was \$3.5 billion, in then-year dollars, over the system life cycle. Although the Air Force has not reviewed the costs of the upgrade program since the Council's review, based on satellite configurations and cost data provided to us by the Air Force's Space Division, the program should cost at least \$450 million less than the STRATSAT system. The primary difference between the Air Force's estimates and ours is that the three alternatives were not treated consistently by the Air Force when the Council made its review. As a result, the Air Force's alternative was apparently less costly than the upgrade. However, our assessment of the alternative costs indicates that the opposite is the case.

DLG
LDH In addition to the Air Force's apparent misinterpretation of the threat to our strategic communications satellites, we found that the Defense Science Board Task Force on Enduring Strategic Communications, Command and Control gave a lower priority to the high altitude STRATSAT approach to survivability than it did to the upgrade program's type of proliferated approach.

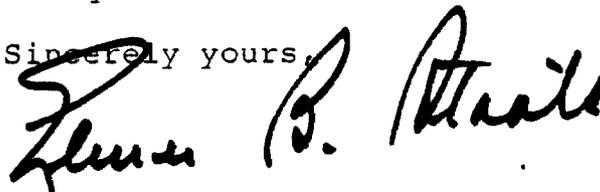
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We are therefore recommending that the Secretary of Defense terminate current efforts to initiate development of the STRATSAT satellites and reconsider the Council's decision, in view of our findings.

In conducting this review, we interviewed officials of the Department of Defense and the Department of the Air Force. At your request, we did not take the additional time needed to obtain official agency comments on this report. Defense officials with whom we discussed the report issues declined to comment.

As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from the date of the report. At that time, we will send copies to interested parties and make copies available to others upon request.

Sincerely yours,

A handwritten signature in black ink, appearing to read "James B. Starks". The signature is written in a cursive, somewhat stylized script.

Comptroller General
of the United States