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STATEMENT OF

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BEFORE THE

SUBCOMMITTEE ON MILITARY CONSTRUCTION

COMMITTEE ON APPROPRIATIONS

UNITED STATES SENATE

ON

THE CONSOLIDATED SPACE OPERATIONS CENTER

Mr. Chairman and Members of the Subcommittee:

I am pleased to be here today to testify concerning our review of Department of Defense planning for a Consolidated Space Operations Center (CSOC). This evaluation was done at the request of the Chairmen, Committee on Appropriations and Subcommittee on Defense, and the Subcommittee on Science, Technology and Space, Committee on Commerce, Science and Transportation. At their request, we issued our report (MASAD 82-14) to the Congress on January 29, 1982.

Our work focused on overall military space planning and its implication for the development of the center. We reviewed

the evolution of siting criteria and the unique operational and organizational factors bearing on final site selection, as well as the cost and legal ramifications involved.

Since 1977, the Department of Defense has recognized the need for a backup capability to the Satellite Control Facility at Sunnyvale, California which is located in a zone of high earthquake damage probability. Also, since the early 1970's, the Space Shuttle has been viewed as a replacement for expensive military satellite launch vehicles. The backup for Sunnyvale satellite control operations and a secure military command center for sensitive DOD Space Shuttle operations were considered as candidates for colocation since their inception. In 1979, at the request of the Office of Management and Budget, the Defense Department examined into whether the two systems could be merged into one center, and the concept of the Consolidated Space Operations Center was born.

After three years of evaluating candidate sites for the CSOC, the Air Force selected a section of Colorado State land 10 miles east of Peterson Air Force Base at Colorado Springs, Colorado. The Air Force is requesting \$67.7 million for Fiscal Year 1983 Military Construction and \$20.7 million for Fiscal Year 1983 Procurement, to begin construction of the CSOC, which it hopes to have partially operational in 1986. The fully operational center is expected to cost \$1.2 billion by 1990.

In our review of Consolidated Space Operations Center plans, we were hampered by the fact that there is no definition of exactly what the center is expected to accomplish. Nor did we find adequate Air Force consideration of various cost-effective alternative

approaches. Beyond this, there is no central manager for military space operations to define the role and mission of the center relative to other space programs.

Briefly, the findings of our review were:

- The need for immediate construction of a backup capability for the Sunnyvale Satellite Control Facility appears justified.
- The site selected for the CSOC near Colorado Springs is technically acceptable as far as its ultimate mission can be surmised without an overall space exploitation plan.
- There appear to be no legal barriers to the Air Force utilizing the chosen site at this time. However, the real estate transaction has not been completed.
- There are about 10 activities in the Federal government, concerned with military space activities, each with its own version of space exploitation programs.
- The Air Force has not given sufficient attention to the possibility of significant cost savings through the incorporation of many of these individual space programs into a truly consolidated space operations center.
- The Air Force currently plans to utilize computer technology developed about 1977 for the center. Given the current rate of computer development, those computers will be obsolete before the center is fully operational in 1990.
- New developments in software technology have not been adequately considered. For example, DOD is standardizing on a new high-level language called Ada. Yet, plans for the center are to use older FORTRAN and JOVIAL languages.
- The Controlled Mode, a secure operational complex at

Johnson Space Center, appears adequate for the number of Space Shuttle vehicles that will be available for military missions in the near future. We think this relieves the element of time criticality for a Shuttle Operations and Planning Center now planned to be built at Colorado Springs.

- No overall plan exists for military space exploitation, and the Air Force role has not been adequately defined to provide strong central management of the programs involved.
- Because of fragmented, and in some instances inadequate planning, we were unable to determine the cost effectiveness of the Air Force approach. As stated, it appears that the Air Force expects short term software development cost avoidance by replication of Johnson and Sunnyvale facilities.
- Cost estimates for the center have varied widely over the last 3 years. They have ranged from \$400 million to \$1.8 billion. Currently the Air Force is stating \$1.2 billion. We found no adequate support for that estimate.

These findings lead us to conclude that the Air Force, in lieu of firm requirements, has followed a development approach based on hasty achievement of short term goals. We still recommend that the Secretary of Defense take the following immediate remedial actions:

- Designation of a single manager for military space development and operation.
- Preparation of an overall plan for the military exploitation of space to include consideration of an interim Satellite Operations Complex in Colorado Springs. The plan should be supported by an adequate cost-benefit analysis of all viable alternatives.

It is our view that, until these actions are implemented, Air Force plans to build a complete space facility are not adequately supported and full funding of the consolidated center construction is questionable at this time.

Mr. Chairman, this concludes our prepared testimony. We will be happy to respond to any questions the Subcommittee may have.