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STATEMENT OF

Walton H. Sheley, Jr., Director

MISSION ANALYSIS AND SYSTEMS ACQUISITION DIVISION

before the

Subcommittee on Legislation and National Security

House Government Operations Committee

Mr. Chairman and Members of the Subcommittee:

I appreciate the opportunity to appear before this Subcommittee to discuss the validity of inflation projections used in ~~the Department of Defense's~~ (DOD's) major weapon system cost estimates. As you know, we have long been concerned about DOD's use of optimistically low inflation rates in estimating the cost of major weapon systems. We are concerned about the use of low inflation rates in two areas: budgeting and cost estimating for major weapon systems as reported in Selected Acquisition Reports (SARs). Unfortunately, recommendations we have made to reduce the problems and confusion caused by using low inflation rate projections have not been adopted.

Today, I would like to discuss (1) how DOD's inflation rates are projected, (2) how these inflation projections have compared with actual inflation rates, (3) the effects of using low inflation rates, and (4) recommendations we have made to improve cost estimating for inflation.

HOW DOD'S INFLATION RATES ARE PROJECTED

It should be noted that DOD's fiscal year 1972 budget was the first which the Office of Management and Budget (OMB) allowed to include inflation in future years' cost estimates for major programs. OMB provides inflation guidance which is consistent with the economic assumptions included in the President's budget message. The Office of the Secretary of Defense (OSD) uses the OMB guidance in a computer model to develop inflation rate projections for procurement, shipbuilding, research and development, operations and maintenance, and military construction and family housing. OSD's inflation projections can not, in the aggregate,

exceed the rates in the OMB guidance. The military services use OSD inflation projections in developing their portions of the DOD budget and in estimating the cost of major weapon systems as reported in SARs.

OSD periodically revises its inflation rate projections based on OMB guidance. Before August 1977, OSD allowed service-produced or program-specific projections to be used in planning and budgeting. Since August 1977, however, OSD has required the services to use its inflation rate projections, unless an exception is justified. The F-16 program, with its multinational coproduction aspects, is the only program currently using different inflation rate projections.

HOW INFLATION PROJECTIONS HAVE COMPARED WITH ACTUAL INFLATION

OSD's inflation rate projections have historically been lower than actual experience, especially since 1978. This Subcommittee's June 1979 hearings received DOD and GAO testimony that rates being used have been lower than actual inflation. Traditionally, the President's economic assumptions reflect a trend towards lower inflation rates on the basis that the President's economic programs and plans will be adopted and, in fact, work to reduce inflation.

The current Administration is estimating that inflation rates will decrease from 9.9 percent in fiscal year 1981 to 4.9 percent in fiscal year 1986. These rates appear in the revised fiscal year 1982 budget message. Based on OMB's guidelines, OSD's inflation rate projections for procurement decrease from 7.93 percent in fiscal year 1981 to 5 percent in fiscal year 1986.

From 1973 through 1980, OSD's projections show both the optimism in future inflation rates mentioned earlier and increases in the inflation rate for a future year as that year draws nearer. For example, succeeding inflation rate projections for fiscal year 1980 increased from 3.1 percent in 1973 to 8.6 percent in 1979. Only the current Administration's projections break this trend.

A comparison of OSD's inflation projections for procurement with the actual Consumer Price Index shows that shorter term predictions were closer to the actual rates than longer term predictions. Similarly, when the annual inflation rate increase was lower, such as before 1978, OSD's projections were closer to actual. Projections for more than 3 years in the future have been less than half of the actual inflation rate.

It should be noted that the inflation rate increases experienced by defense-related industries may be higher than the Consumer Price Index increases for the same period. For example, our latest report on the F/A-18 stated that the projected rates for fiscal years 1981 through 1986 averaged 7.9 percent. Aerospace industries' projections averaged 13.3 percent for the same period. Similarly, a Defense Science Board study in 1980 found that weapon system costs were increasing at a current rate of at least 20 percent while the inflation factors used in DOD planning were only 9 to 10 percent.

EFFECTS OF USING LOW INFLATION RATES

Adverse effects result from using low inflation rates in budgeting and in reporting cost estimates in SARs. Two major effects have been:

--appropriations have not funded everything in the budgets, and

--SAR cost estimates have been periodically increased to include actual inflation that is higher than projected or to reflect inflation rates that have been revised upward.

In our opinion, the first condition is the most serious. The Congress authorizes and appropriates funds based on specific research and development or procurement activity for major weapons programs.

Because of low inflation rate projections, the research and development or procurement activity reflected in the budget cannot be accomplished with the appropriated funds. Let me illustrate: the fiscal year 1981 procurement appropriation included funding for 60 F/A-18 aircraft. Primarily because the appropriated funds did not adequately cover inflation, Navy officials have said that only 53 aircraft can be bought at that funding level. Moreover, a Navy official informed us that if aerospace industry inflation projections had been used in developing the budget request, the fiscal year 1981 request for 60 aircraft would have been 15 percent higher.

Unless funds are reprogrammed or there is a supplemental appropriation to cover the funding shortfall, programs face less efficient production rates, higher unit costs, and program stretchouts. Higher unit and program costs can then lead to affordability concerns.

Significant program stretchouts cause major program cost increases because of greater exposure to inflation. Examples of recent aircraft program stretchouts and their reduced annual production rates include:

--F-16 (reduced from 180 to 120 to 96),

--F-15 (reduced from 60 to 30), and

--A-10 (reduced from 144 to 60).

Another effect of the funding shortfall is that in order to maintain program schedules, reductions may be made in areas such as spares, support, testing, and training. These reductions reduce our defense readiness posture. Funding shortfalls in a given year are often not covered in future years. These shortfalls may accumulate, especially when actual inflation remains above projections. Navy officials said the funding deficit for the F/A-18 program resulting from low inflation projections since fiscal year 1977 totals about $600 million. They said that they have had to resort to such measures as reducing program needs, delaying work, and delaying acceptance of deliveries.

Funding shortfalls, program stretchouts, and higher unit and program costs create affordability problems for the total DOD budget. With respect to the new $1.5 trillion Five Year Defense Plan, it can not be accomplished if projected real growth in the budget does not materialize. If inflation increases at a rate higher than projected and the total funding in the Plan remains constant, real growth will be decreased.

As an example of what can happen, Dr. Perry, former Under Secretary of Defense for Research and Engineering, noted in his fiscal year 1982 statement, that the fiscal year 1978 Five

Year Defense Plan assumed a cumulative 40 percent real growth in procurement. This Five Year Defense Plan was developed during 1976 using an average annual procurement inflation rate of about 4.8 percent. Expected real growth for fiscal years 1978 through 1982 was reduced to 27 percent in the budgets submitted during the five year period. However, the actual real growth experienced is expected to be only about 6 to 14 percent because of higher than projected inflation.

The other major effect of using low inflation rate projections, especially for program out-years, is that program cost estimates are continuously increased as higher than expected inflation occurs or rate projections are revised upward. Such increases have been reported on many occasions in the quarterly SARs. As the latest example, a $48 billion increase was reported in December 31, 1980. A prime cause was the difference between government inflation rate projections and current DOD experience with inflation. Numerous magazine and newspaper articles have publicized this increase.

The December 31, 1980 SAR summary disclosed that for the three month period almost $14 billion of the $48 billion increase in the cost estimates for the 47 systems was at least partially attributable to government inflation projections being lower than actual and contractor predicted inflation and to revision of future inflation rate projections. The F/A-18 aircraft, XM-1 Tank and Fighting Vehicle Systems (FVS) programs alone accounted for $11 billion of this increase. The $14 billion increase was composed of:

--$3.4 billion of economic escalation for all 47 systems due to an upward revision of inflation rate projections;

--$8.3 billion resulting from differences in government versus actual and contractor predicted inflation experience for the F/A-18, XM-1, and FVS programs; and

--$2.0 billion in schedule and support increases for the F/A-18 and XM-1 programs caused in part by prior low inflation estimates.

Although we cannot quantify the effect of these continuous increases, we believe one of the most disturbing aspects is the effect on the American public's trust of the Federal Government and its view of the Federal Government's competence.

Both the funding shortfalls and the continuous revision of inflation projections have contributed to increasing the cost estimates for major weapon systems and to increasing the portion of the program cost estimates that represent inflation. Actual and projected escalation for systems reported on SAR has risen from 39 percent of the total current estimate in December 1975 to 53 percent in December 1980.

The 47 current SAR systems have current program cost estimates totaling $310 billion as of December 31, 1980. This includes $165 billion for actual and projected escalation consisting of: $36 billion for escalation included in the programs' development estimates; $82 billion for inflation related to program changes 1/; and $47 billion for inflation resulting from changes in future

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1/ Program changes include quantity, schedule, engineering, support, estimating, and other changes.

inflation rates and differences between projected and actual inflation.

One of our major concerns is that over $193 billion of the $310 billion total current estimate is yet to be appropriated. Much of this $193 billion estimate includes inflation which has been projected at levels as low as 6 percent. If the goals of the President's economic plan are not achieved, program cost estimates for major weapon systems will continue to increase.

PAST CONCLUSIONS AND RECOMMENDATIONS

Recognizing the adverse effects of using low inflation rate projections, we have made several recommendations at various times in the past regarding inflation rates, as follows:

- --Cost estimates in SARs should be given in a range of probable cost including a single-point "best estimate;"
- --DOD should reinstitute a chart showing the impact on the program cost estimate of using different inflation rate projections at least as high as the approximate rate being experienced when the SARs are prepared;
- --Inflation should be included in the budget year and future costs should be given as a range of costs dependent on different inflation rates and spending profiles. Each year the programs' current estimates would be adjusted to include actual inflation.
- --OMB should establish guidelines for DOD and other agencies to adjust budget estimates to account for inflation during the budget processing cycle, so that budgets and cost estimates are expressed in comparable prices.

It should be noted that the first three recommendations represent three different ways of treating the same problem--uncertainty in forecasting future inflation rates.

Today we would make two recommendations regarding inflation rates. First, we would recommend that DOD's budget should be based on as realistic inflation rates as possible. This may mean that the rates should not be tied to formal indices such as the Consumer Price Index. Use of rates significantly lower than industry projections should be justified in the budget. Second, we would again recommend that DOD reinstitute using a chart in its SARs to show the effect on the program cost estimate of using different inflation rate projections, including projections at least as high as the approximate rate being experienced when the SARs are prepared.