

**THE PLANNING, FORMULATION, EXECUTION, AND  
MANAGEMENT OF THE DEFENSE BUDGET**

30 October 1957

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Honorable Wilfred J. McNeil, Assistant Secretary of Defense (Comptroller), was born in Boone, Iowa, 21 February 1901. Prior to World War II he had experience in banking, automobile merchandising, and newspaper circulation. During the war he served in the Supply Corps, U. S. Navy, and attained the rank of rear admiral. He was appointed Fiscal Director of the Navy Department in January 1945, and served as Special Assistant to the Secretary of Defense from September 1947 to September 1949. Mr. McNeil was nominated by President Truman as Assistant Secretary of Defense, and was confirmed and designated Comptroller in September 1949. He has served continuously in these capacities under Secretaries of Defense Marshall, Lovett, and Wilson.

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**ADMIRAL CLARK:** Gentlemen, there is no more difficult area of administrative responsibility in the management of our national security affairs than that which relates to our defense budget. We therefore are extremely fortunate this morning in having as our speaker the man who is chiefly responsible for the planning, administration, and formulation of that budget and who I think undoubtedly is the most experienced man in this country in this field.

Last year in addressing this College he said at that time he thought that the job that faced the President, the National Security Council, the Secretary, and the Chiefs in relation to the formulation of the budget was the toughest they ever had; and that he for one didn't envy them. Now, whether the job is even tougher this year perhaps the Secretary will tell us. But, at any rate, anybody who has even a bowing acquaintance with governmental affairs knows that the job of a comptroller is perennially tough.

It's a great pleasure and privilege for me to introduce to this College and to welcome back to this platform the Assistant Secretary of Defense, the Honorable Wilfred J. McNeil.

**SECRETARY McNEIL:** Members of the Faculty and Gentlemen: It is indeed a pleasure to meet again with the students and faculty of the Industrial College to talk about the defense budget. As you know, this is the season of the year when we are approaching the final stages in the preparation of the defense budget for the coming fiscal year. It is the time of the year when budget problems are uppermost in the minds of the men responsible for the planning and management of the Nation's defenses. The topic assigned to me for today, "The Planning, Formulation, Execution, and Management of the Defense Budget," is therefore very timely.

I would, however, like to devote my time primarily to the planning and formulation aspects of defense budgeting. Budget management and execution are very important, but the critical

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problems now confronting the defense establishment, the Government as a whole, and the country at large lie within the area of budget planning and formulation.

It is still too early and, in fact, it would not be appropriate for me to discuss the fiscal year 1959 budget as such. But the basic policy issues which will shape the character and scope of the defense program, not only for fiscal year 1959, but also for the next few years, can and should be thoroughly discussed and understood, particularly by those of us in the defense establishment.

First, I think that it must be clearly recognized that military strategy and the size and composition of our military forces cannot be divorced from economic and fiscal policy. This interrelationship is not a new phenomenon. Neither is it unique to the United States. Other countries both on this and the other side of the "Iron Curtain" must also cope with this problem. There are differences in degree--important differences--but still differences only in degree.

This relationship between economic and fiscal policy and military policy exists in wartime as well as in peacetime. In time of war the physical capacity of the economy becomes the limiting factor. In peacetime, the emphasis shifts to other factors--budgetary policy, the tax burden, the demand for public improvements and for higher living standards, etc.

I think we can all agree that economic capacity, per se, is not a limiting factor on the size of the defense program today. In theory the United States economy, right now, could support a considerably larger program than the one we now have, provided it were of short duration. But this is not the real issue. There are other, perhaps more subtle, factors which set a very real limit on the size of the defense program which we can expect the Nation to support in peacetime, year after year, without a foreseeable end. Although the Government has made a great effort in recent years to stem the course of inflation, and has achieved some success, the basic long term trend of prices and wages is still inflationary, not only in this country but throughout the world. Under these circumstances the Government must continue to plan for a budget surplus, or at the very least, a budget balance in the interest of fiscal and economic stability.

Beyond this there is a continuing underlying demand for some reduction in the relatively high tax burden now being borne by the people and the business firms of this country. The Federal tax-take since the end of World War II has more than doubled, but the State and local tax-take has almost tripled during this period. Admittedly, the country has grown considerably since then--the Gross National Product has increased from \$209 billion in 1946 to an estimated \$435 billion in 1957. But even in terms of the GNP, the combined Federal and local tax-take is today the highest in our history including World War II and the Korean War periods--26.2 percent in 1957 compared with the World War II peak of 25 percent in 1943, and the Korean War peak of 25.6 percent in 1952. The demand for schools, roads and other services normally provided by the States and local governments continues unabated and the tax burden in that quarter may be expected to increase further.

Over the long pull, in a free enterprise economy such as ours, economic growth depends on the willingness of individuals to save, to invest their capital, and to take business risks. There is a general feeling in the country that the present tax burden is such as to stifle the incentive to take such risks. Many students of the subject feel that for the good of our future economic growth, upon which our future military power depends, the tax burden should be reduced. Since there is little hope for tax relief in the State and local area, Federal taxes become the target for reduction.

As I stated earlier, the country could support a considerably larger defense program for a relatively short period. But the threat to the security of the United States is not one which could reasonably be expected to recede in the foreseeable future. Even had the recent disarmament negotiations met with success, the nature of the disarmament problem is such that we cannot hope for any significant reduction in the threat to our security for many years to come. Meanwhile we dare not revert to the old "feast or famine" pattern of our military history. What is needed today perhaps more than ever before is a relatively steady, sustained military effort until satisfactory assurances or guarantees exist and our effort may be safely relaxed. A stable, steady military effort for the long pull has been the basic military policy of the United States for the last seven years although it has not always been perfectly executed.

In December 1950 General Marshall, in explaining why he favored a partial rather than an all-out mobilization, stated the policy this way:

"The intensity of our immediate mobilization must be in keeping with our ability to carry on during the possible years of tension. It is a trial of endurance of a character which is new to the American people, but is a trial that must be met with determination."

President Eisenhower in April 1953 after several months of study restated the policy as follows:

"We reject the idea that we must build up to a maximum attainable strength for some specific date theoretically fixed for a specified time in the future. Defense is not a matter of maximum strength for a single date. It is a matter of adequate protection to be projected as far into the future as the actions and apparent purposes of others may compel us. It is a policy that can, if necessary, be lived with over a period of years."

The wisdom of the long pull policy, I believe, has been well demonstrated over the past seven years. We are still faced with essentially the same threat to our national security, and we still see no real evidence of its lessening in the foreseeable future. Notwithstanding our sincere and determined efforts, together with our free world allies, to secure a safeguarded arms reduction agreement with the USSR, that goal is still in the indefinite future. We are still confronted with the problem of maintaining a large and costly military establishment for an indefinite period. In addition, we still have to continue to help our allies support and train their military forces--an indispensable element of the concept of the collective defense of the free world.

Further complicating the problem is the astonishingly rapid rise in the cost of new weapons. Whereas the average cost per military man has been increasing at the rate of 3 or 4 percent a year, even without a pay raise, the unit cost of new weapons has been increasing at several times that rate. These increases in costs have not resulted primarily from increases in general prices and wages, although these have also been important.

These cost increases result for the most part from greatly increased complexity associated with the much greater combat power and effectiveness of these new weapons.

I would like to illustrate this point with a few specific examples. Let us consider first the cost of aircraft, which still accounts for well over half of our major procurement expenditures. The average flyaway cost for aircraft bought by the Air Force has more than tripled from about \$700,000 for aircraft in the 1951-1952 period to more than \$2.2 million per aircraft in the 1957-1958 period. Similarly, in the Navy the average cost per aircraft has just about doubled from about \$530,000 to over \$1 million per aircraft. The cost of aircraft will be even higher in fiscal year 1959.

There are many reasons for this startling increase in unit costs--heavier aircraft, more electronics equipment, higher performance, etc.

The relation of performance, complexity and cost becomes more evident when specific aircraft models of the same types are compared. The B-29 cost about \$600,000 per airplane, exclusive of spares, ground-handling equipment, etc. The B-36 cost about \$4 million per airplane. These are now being replaced with the B-52, which costs twice as much.

But the cost of an airplane alone does not give the full measure of the increase in the cost of equipping a wing. A B-36 heavy bomber wing, as you know, has a UE of only 30 aircraft plus command support and costs about \$132 million for aircraft alone. The 11 wings of B-36's are now being replaced, one for one, with B-52 wings of 45 aircraft each, plus 30 KC-135 tankers in support. Including command support, these new heavy bomber wings will cost four times the B-36 wings they are replacing.

The B-29, after World War II, was reclassified as a medium bomber and was later replaced by the B-47. This airplane costs just three and one-half times the cost of the B-29 it replaced even though it was produced in very sizable quantities. To replace the present 28 wings of B-47's with the B-58, which would also require replacing the KC-97 tanker with the KC-135, would cost between \$20 and \$25 billion for aircraft and spares alone.

The same pattern exists in other types of aircraft for both the Air Force and Navy.

Even if the factor of size and weight is eliminated, the cost of aircraft has increased enormously since World War II and will continue to increase in the future. During World War II the cost per pound of aircraft (weight empty) averaged from \$9 to \$11. During the Korean War the cost per pound averaged between \$20 and \$30. The airplanes now being delivered cost between \$45 and \$55 per pound. For the aircraft to be delivered two or three years from now, the cost per pound will run between \$70 and \$80. The cost of prototypes is running about \$200 per pound. Mr. Wilson liked to compare this with the cost of silver--less than \$15 per pound.

These startling increases in unit costs of weapons are not confined to aircraft. During World War II, the cost of a submarine was about \$4.7 million; during the Korean War, a conventional type submarine cost about \$22 million; the nuclear submarines being built today cost twice as much (\$45.0 million). The Fleet Ballistic Missile Submarine may cost twice as much again. The cost trend for destroyers and aircraft carriers has followed the same pattern.

The Army, too, has not been immune from these great increases in the cost of new weapons. An antiaircraft battalion, equipped with the NIKE I (AJAX), costs about three times as much as a battalion equipped with 90 mm. or 120 mm. antiaircraft guns. The NIKE B (HERCULES), which will soon be replacing the NIKE I (AJAX), is several times as big and will cost several times as much per missile as the NIKE I (AJAX). This is exclusive of the cost of the atomic warhead for the NIKE B (HERCULES).

These new weapons not only cost much more to produce--they also cost a great deal more to operate and maintain. The cost of overhauling an F-102--\$44,000--is more than double the cost of overhauling the F-86D--\$21,400--which it is replacing in the air defense system. Because of their higher fuel consumption and larger size, modern jet aircraft are also more expensive to fly. Part of this increase is due to higher fuel costs. But most of it is due to the higher fuel consumption of the newer jet planes. For example, the fuel cost for a B-66 is \$114 per hour compared with \$30 per hour for the older B-26 which it replaced. Similarly, the B-52 consumes \$330 of fuel and oil per flying hour compared with \$272 of fuel and oil consumed by the B-36 and \$83 for the B-29, the heavy bomber of World War II.

The jet and rocket age has also imposed vastly increased demands upon our research and development programs. I need not tell a group of this sort that supersonic aircraft and missiles have entailed complex problems of control and instrumentation which have multiplied the cost of experimentation.

Thus, the development of new weapon systems to the point where they can be placed in quantity production for the equipping of operational units is becoming increasingly costly. Many billions of dollars will have been invested in the development of ballistic missiles before our military services actually achieve even initial operational capabilities with these weapons. In fact, it is estimated that the cost of developing ballistic missiles to an operational state may run two to three times the cost of developing the first atomic bomb. (If some of you think that the ICBM will be a bargain once it is developed and in production, let me pass on to you some preliminary and still highly tentative cost estimates. For one ICBM wing the cost may run as high as \$1 billion per wing.) These development costs are over and above the current costs of equipping our forces and must be carried simultaneously, thus placing a double burden on the defense budget.

Only part of these costs are to be found in the research and development appropriation. The larger part of the cost--for development, test and evaluation--is financed in other military appropriations, particularly procurement and production. The total cost of research, development, test and evaluation has increased steadily over the years, from about \$3.4 billion in fiscal year 1955 to about \$5.2 billion in fiscal year 1957. In fiscal year 1958 these costs are expected to exceed \$5.3 billion and may continue to rise in the future.

The full significance of this weapons revolution, for defense costs, was brought home to many people in the Pentagon, perhaps for the first time, in the preparation of the fiscal year 1958 budget.

The preliminary costing of the military departments' fiscal year 1958 proposed programs showed a requirement for about \$48 to \$49 billion a year in new money, compared with actual appropriations for fiscal year 1956 of \$33.2 billion and a fiscal year 1957 budget request of \$35.5 billion. Taken together with the preliminary estimates of other Government departments and agencies, the grand total money request for fiscal year 1958 would have been

\$87 billion compared with estimated revenue for that year of \$71.5 billion. Because of the long lead time involved in military procurement, actual expenditures in fiscal year 1958 would have been lower but would soon have risen to the \$87 billion level. Even so, the estimated deficit in fiscal year 1958 would have amounted to over \$4 billion and would have been considerably higher in later years.

It was clear from even a cursory examination of the cost figures that a normal budget review alone could not get the \$48 to \$49 billion figure down to what might be considered a realistic level. The problem was in forces and programs. The services were requested to review rigorously these forces and programs.

Later in the year the services formally submitted their fiscal year 1958 budget requests. The total was \$45.2 billion, only \$3.3 billion less than the \$48.5 billion preliminary estimate for 1958. The estimates were conservatively developed, in the sense that there was no deliberate padding. It was clear that to get the figure to a level which would fit the Government's anticipated income, something more than budget review would be required. The final result was some reduction in forces and programs. The final figure included in the President's January budget was \$38.5 billion of new obligational authority. The Congress actually appropriated only \$36 billion. All the services were affected.

Now let us look at the other side of the problem. Actual expenditures for the military functions of the Department of Defense in the fiscal year ending 30 June 1957 amounted to \$38.4 billion--\$2.4 billion more than the amount estimated in the budget and about \$2.5 billion more than the amount expended in fiscal year 1956.

There were many reasons why our expenditures ran so far ahead of our early estimates. The following are perhaps the more important:

First, progress and spending in the ballistic missile programs during the last fiscal year were much greater than earlier anticipated. Expenditures for this purpose increased from \$250,000 in fiscal year 1956 to about \$1 billion in fiscal year 1957.

Second, the usual production delays, material shortages, strikes, etc., which have plagued defense production programs in the past, were virtually absent in fiscal year 1957.

Third, the tight money market and the upward trend in interest rates, which developed during 1957, no doubt provided defense contractors with an incentive to accelerate their collections from the Government.

Fourth, there has been a general increase in the number of what we call "level of effort" projects. These are projects which involve development rather than production of a fixed quantity of an item. Obligations for these projects are on a very short lead time basis, and the elapsed time between the obligation and the expenditure of the money is relatively short.

Fifth, a new technique of partial financing or "installment buying" was introduced during the year. This is rather involved and controversial and I shall not attempt to discuss it at this time. It is sufficient to say that partial financing accelerates expenditures in relation to a given volume of obligations.

Sixth, prices and wages increased significantly during the year. It is impossible to isolate from design and engineering changes the exact impact of these increases on defense expenditures, but we know that these increases enter into the prices of virtually everything we buy, be it goods or services. The Bureau of Labor Statistics wholesale price index increased 2.8 percent during fiscal year 1957. The Department of Commerce index of construction costs increased 3.8 percent and the Navy's index of shipbuilding costs increased 7.3 percent. Average gross hourly wages in the durable goods industries increased 4.8 percent during the year.

Seventh, more program was planned or put under way than we could pay for with \$38 billion.

Had it not been for certain offsetting reductions in other Federal expenditures and somewhat greater than anticipated revenues, the overrun in Defense Department expenditures would have wiped out the planned budget surplus for fiscal year 1957. As it turned out, the Government succeeded in ending the year with a modest surplus of \$1.6 billion.

But our troubles did not end with the close of fiscal year 1957. Expenditures in the second half of that fiscal year were running at an annual rate of \$40 billion and showing every sign of going

higher in fiscal year 1958. Our problem was further complicated by the decision not to ask the Congress for a continuation of the temporary increase in the public debt ceiling. As some of you may know, the temporary \$3 billion increase in the debt limit expired as of 30 June 1957, leaving the debt ceiling at \$275 billion. Since Government revenues normally fall short of receipts prior to March or April of the fiscal year, when the heavy income tax payments are made, the Treasury is forced to borrow during that period. At the present time the debt is less than a billion dollars below the legal limit and the Treasury's operating cash balance stands at about; \$3.5 billion, a relatively low level considering the size of the Government's operations. The situation will get considerably worse, particularly in January, February and March of next year, at which time the debt is expected for all practical purposes to be up to the legal limit, and the Treasury's operating cash balance significantly lower than the current level. This leaves the Treasury with virtually no margin to meet unexpected contingencies, and virtually no "elbowroom" to manage the debt in an orderly manner or to take advantage of a favorable turn in the Government securities market.

Under these circumstances it is imperative that all Government Departments and Agencies must make every effort to operate within the expenditure estimates contained in the President's fiscal year 1958 budget, especially during the critical period, November-February. That is why the Department of Defense was directed and has made such a vigorous effort to reduce expenditures during the current fiscal year. You are no doubt aware of the various actions taken--they have been well publicized. Overall these measures have met with some success. Expenditures for military functions during the first quarter of the current fiscal year total \$9.768 billion. Converted to an annual rate on a straight monthly basis, this amounted to about \$39.1 billion. This compares with the budget estimate of \$38 billion for fiscal year 1958 and a spending rate of \$40 billion during the last half of fiscal year 1957.

It may not be possible for the Defense Department to stay within its goal for the first half year--\$19 billion--without taking actions which might harm vital elements of the military program or encourage the use of unbusinesslike practices. Rather than take such actions the President has permitted, and the Treasury is making the necessary arrangements to finance, additional defense expenditures of up to \$400 million through the end of this calendar year.

I believe the fiscal year 1958 expenditure problem will be brought under control, but the financial problem over the next few years will remain difficult. Even if defense expenditures are held about the present level, total Federal expenditures by 1960 according to some estimates could reach almost \$78 billion a year. Budget receipts for fiscal year 1960, with no reduction in current tax rates, could reach \$80 billion a year, producing a small surplus of about \$2 billion. This projected surplus, however, is based on the assumption of uninterrupted economic growth. In the light of the present business situation, this may be a rather optimistic assumption. If a mild recession on the order of that which occurred in 1953-1954 is assumed, Federal revenues in fiscal year 1960 could amount to only \$74 billion compared with \$78 billion of expenditures, thus producing a \$4 billion deficit.

Nobody can with certainty predict business conditions over the next few months--least of all over the next few years. I mention these budget projections simply to indicate how tenuous is the basis for a tax cut in the near future and how doubtful the prospects are for a substantial increase in defense expenditures. It is quite apparent that defense expenditures in excess of \$50 billion a year are just not in the cards.

Even with the most optimistic assumptions with respect to future economic growth and the assumption of no tax cut over the next several years, defense expenditures of this magnitude would again place the Government well in the red. Budget deficits at this time could be very dangerous to the financial and economic stability of this country, and indeed to the entire free world. The United States is the keystone of the economic structure of the entire free world which is already seriously strained by the forces of inflation. A major economic dislocation in the United States at this time--either on the deflationary or inflationary side--would entail very serious risks to the economic stability of the entire free world.

It would seem, therefore, that the Department of Defense to be realistic must plan on a future level of expenditures not far different than the present. This means that the Defense Department as a team must devote its best efforts to developing a good \$38 to \$39 billion defense plan.

It would appear that the only practicable way in which we can continue to carry the heavy burden of defense without impairing our future economic strength is to weed out ruthlessly the obsolete and obsolescent and concentrate our resources on those forces and weapons which really contribute to military strength in this era of rapidly evolving technology. In the process of constantly reallocating resources for defense, certain basic principles are clearly applicable: First, full weight must be given to the greater combat capability of new weapons systems. When four battalions of Army CORPORAL missiles equipped with nuclear warheads are equivalent in firepower to all the artillery employed in World War II, and when one thinks of the destructive power that can be carried by one Air Force B-52 bomber, it is reasonable to assume that some reduction can be made in numbers of military units.

Second, a proper balance must at all times be maintained between numbers of men and modernization of equipment. As numbers of military units decline, numbers of military personnel on active duty will also decline. The Department of Defense will have to continue its efforts to hold down expenditures for people and facilities and to keep operation and maintenance costs in line, so that expenditures for the development and production of new weapons can be maintained or even increased in future years.

Third, increasing attention will have to be given to the overlapping of new, old and intermediate weapons systems. The cancellation of the NAVAHO long range, and TRITON medium range, "airbreathing" missiles recently announced are examples of what must be done in this area. Both of these missiles are overlapped by old and new systems--the NAVAHO by the older SHARK "airbreathing" missile now in production and by the newer intercontinental ballistic missile, ATLAS, now in an advanced stage of development. The TRITON is overlapped by the older "airbreathing" REGULUS II and by the newer POLARIS.

Fourth, related to this problem is the need for greater selectivity among weapons systems planned for the same time period. We cannot afford too many parallel approaches, except in the more critical areas. One of these critical areas is the ballistic missile. Here we have not only undertaken parallel approaches to the complete weapons system, but parallel approaches within weapons systems. Because of the multiple approach adopted in the development of these important weapons, the time will come when a

decision will have to be made between competing systems. The decision between the Army's JUPITER and the Air Force's THOR intermediate range ballistic missiles is one of these.

Fifth, to maintain a level defense program of about \$38 to \$39 billion a year will require more than the \$36 billion appropriated by Congress for FY 1957. For all practical purposes carryover funds will be fully used up by the end of this fiscal year. Thereafter, new obligation authority will have to approximate the planned level of expenditure.

The proper application of these principles may require some changes in the strategic thinking of some of us, but it is a problem which can no longer be sidestepped. It should be faced squarely at the military planning level and not left for solution at the budget review stage. The Public Printer is an inflexible tyrant and budget deadlines must be met. All the issues which are sloughed over in the earlier stages of our planning-programing-budgeting cycle must be decided for better or worse in the final budget review.

I think it is clear from all that I have said that economy and efficiency throughout the defense establishment, which should be our goal in any event, is an absolute necessity today. There are actually three different levels of economy in military affairs: Economy in forces, which is the job of the Joint Chiefs of Staff and higher echelons; economy in programing, which is the job of the departmental headquarters; and economy in the day-to-day operations of the Defense Department, which is the job of each and every one of us. Particularly at this time, when the public and the Congress are becoming restless under the admittedly heavy burden of the defense program, any case of inefficiency or waste, no matter how trivial, can cost us dear. In their present mood, people tend to seize on these isolated instances and generalize them as glaring examples of waste throughout the whole Department. So we have a selfish as well as a patriotic reason for doing the kind of job that will merit the continued confidence and support of the people of this country for an adequate defense program for the long pull.

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