The Military-Industrial Complex: The Dynamics of Power and Compliance

An Honors Thesis (ID 499)
by
James E. Ringenberg

Thesis Director
Dr. George H. Kelly

Ball State University
Muncie, Indiana
May, 1974 (Graduation: Summer, 1974)
How does one thank those who have helped him to learn and grow, to question and seek not only answers, to strive and not be satisfied? This appreciation and indebtedness certainly cannot be adequately translated into words. But insofar as it is possible to articulate these feelings, I would like to express my gratitude to those professors, those fine educators, who make all the difference between mediocrity and excellence. It has been my pleasure to learn from them and share in their knowledge. This paper is dedicated to those who were not complacent, but who strove rather to be exceptional in their field, and who have thus greatly benefited my growth. I especially wish to recognize one individual to whom this thesis is particularly dedicated: Dr. James A. Benson, whose personal devotion, diligence, and concern epitomize the finest ideals of education.
Introduction

It may be stated with considerable justification that the history of man has also been the history of war. Ruthless slaughter, insane outpourings of blood, and calculated cruelty have seemingly always been man's self-inflicted fate. Yet never before the post World War II era has the potential for total global devastation truly existed.

The wonders of technology and a determination to protect ourselves at any cost have propelled us into the age of thermonuclear overkill. Both the United States and the Soviet Union now possess the capability to destroy men and vaporize communities many times over.

Yet the above statement is absolute nonsense: once a man is dead, he is dead; once a region has been incinerated, for all practical purposes, it ceases to exist. Nevertheless, the United States currently retains 11,000 strategic nuclear warheads* to be targeted principally at 156 Soviet cities with populations of 100,000 or more.¹ This means that each of these sites could be hit more than 70 times with a thermonuclear weapon. The reader will excuse my re-statement of the obvious: a man can be no "deader" after being destroyed for the 70th time than the first. This will hold true no matter what the victim's

*Not to mention 7,000 tactical U.S. nuclear warheads in Europe.
political ideology. No additional deterrence from nuclear war can be gained by attempting to kill again those who have already perished in the holocaust.

Such national-priorities emphasis on assured destruction and overkill fosters a world in which the populations of the two most powerful countries are over-armed and, in many cases, under-fed.

The position of this Honors Thesis may be summed up in the following: Military expenditures are far in excess of national defense needs. The Pentagon's budget is rather a function of military, industrial, economic, and political incentives aimed at increasing and sustaining "defense" expenditures at exorbitantly high levels. The United States has become "locked-in" to a system of defense which is enormously pervasive, incredibly expensive, and makes constant demands for more men, money, and machines. The Military-Industrial Complex (MIC) is often held accountable to no one outside its own ranks. Benefits from this system have become widespread and created potent interest groups and supported individuals who seek the system's perpetuation and continued growth.

Such factors have significantly reduced incentives to control Department of Defense (DOD) spending. Largely unscrutinized military outlays result in huge wastes - both in unnecessary production and Research and Development (R&D) and procurement inefficiencies. The arms race also is further exacerbated by continually greater DOD outlays (especially those in the strategic area). Incredible social costs are
imposed by the MIC's considerable success in attaining its goals. Perhaps the greatest tragedy is that these social costs are largely unnecessary.

The reason for the situation described above lies in the relationship between Cold War psychology and A) capitalism (and its profit motive), B) the military (and its bureaucratic incentives), C) representative government (and institutional biases linked with indiscriminate "pump-priming" economics), and D) the political and social position of the military. The combination of these factors (thus far grossly oversimplified) creates a concurrence of interests whose size, resources, and power allow it to seriously compromise and/or defeat its critics.

Let the reader clearly understand from the outset: this writer unequivocally supports a strong national defense. Unilateral disarmament, while perhaps morally enlightened, is not today a viable alternative. This thesis in no way advocates a strategy of weakness and dependence on the "loving nature of mankind." Such is decidedly not the position of this paper.

The fundamental point is this: The reasons for the excessively high levels of defense spending are to be found less abroad than in the incentives and inertia of the Military-Industrial Complex.

If knowledge is the first step in bringing beneficial social change, it is hoped that these words will in some way add to that knowledge. The question posed in this paper, along with an attempted explanation, is: "Why so much for the Military?"
Section One

One of the most significant factors of the post World War II world has been the Cold War between the United States and the Soviet Union. There has probably been no other single chain of events which has so profoundly influenced the fates of the major nations during this period. A central element of this Cold War has been the atomic bomb, and more recently, the thermonuclear warhead.

The United States emerged from the war [World War II] with a vast sense of power, and indeed, as the most powerful single state in the world, anxious to attain a highly organized world economic and political community as a pre-condition to the realization of its vital peace aims.2

Never before had America stood out so prominently in the affairs of the world as at the end of World War II. She intended to reshape a shattered world in her own image. One force seemed to threaten the accomplishment of this dream: monolithic Communism. The chasm of differing political ideologies took on great significance and rapidly turned the United States and the Soviet Union into protagonists in a bipolar world.*

*The purpose of this paper is not to furnish the reader with a history of the Cold War; yet to understand the reasons for the protagonists' constant preparation for nuclear war, the reader must glimpse at least some of its major assumptions and themes.
World War II seemed to confirm all traditional American strategic axioms. Victory had been the result of massive outpourings of material. Strategic bombing was seen as a linchpin of victory, that is, the enemy's unconditional surrender. This directed American strategic thought toward an adaptation of Second World War concepts. Nuclear weapons were incorporated into existing practices as a more efficient explosive. It is a very short and logical step from these positions to the doctrines of Containment and Massive Retaliation. Each sought to keep defense budgets at minimum levels because of the envisaged negative impacts of large Pentagon expenditures on the national economy. Yet as early as 1949 the concept of necessarily high budgets for the military on a sustained basis was conceptualized in the "Long Haul Strategy."

Primary components of national security (e.g. allies, time, overseas balance of power, oceans, and industrial capacities) underwent rapid change in relative importance. Flexible Response to brush-fire wars and an improved national defense became a touchstone of the 1960 presidential campaign. Thereafter the arms race increased dramatically - focused especially on the Intercontinental Ballistic Missile component of strategic power. The Vietnam tragedy absorbed considerable American attention, manpower, and resources. Concurrent with Vietnam escalation and disengagement were the development of many technologically sophisticated weapons systems which had cost overruns in the multi-billion dollar range and which often exhibited critical failures in performance.
By skillfully exploiting Cold War fears, political and economic pressure, and clever marketing techniques, the military establishment has been able to secure a disproportionate share of federal budgets and national resources. Simple economic self-interest has drawn millions of workers, their labor unions, and elected officials into the Military-Industrial Complex. To the industrialist and worker more and larger defense contracts mean higher profits, wages, and prosperity - not war. To the general, an escalated missile program means success, security, and prestige. To the politician, a new defense establishment or contract order in his district means another "feather in his cap" come election day. Self-interest has brought us to the age of thermonuclear devastation, overkill, and increasing claims for "national defense".

An appraisal of United States destructive capabilities as a means of attaining its national goals is useful at this point. The United States seeks, as does the Soviet Union, freedom from enemy attack and/or the consequences of the threat of such attack through what is known as "deterrence". That is, the consequences of an overt act of war would be so incomparably worse than any conceivable gain from an attack that the potential aggressor is effectively and unambiguously discouraged from beginning hostilities. In relations between the superpowers it is assumed that any life-or-death struggle would result in nuclear weapons being used to gain comparative advantage over the other power.
Strategic power is generally defined as the calculated capability to deliver nuclear weapons on the homeland of an adversary. Included in the formula are technical, political, and economic factors which inhibit or aid the production and use of these weapons. The appraisal of strategic power is in no way simply accomplished, as there are a multitude of relevant, relative factors. For example, "superiority in deliverable megatonnage [as the Soviet Union possesses] is essentially meaningless when a relatively small number of weapons can inflict heavy damage." Differences in national demography mean that differing sizes and numbers of weapons would be needed to inflict comparable levels of damage. The preferred measure of strategic power is the relative ability to "punish" an opponent in a nuclear exchange. Therefore, it would appear that whoever can amass the greatest destructive capability should be the most secure. Right? Wrong!

As Henry Kissinger explains,

But when weapons have become extremely powerful, there is an upper limit beyond which increased destructiveness pays diminishing returns. When both sides are capable of inflicting catastrophic losses on each other with their forces-in-being, an increment of destructive power may be strategically insignificant.

The greater the power of individual weapons, the less the importance of numbers or even of quality....

In short, power has grown disproportionate to most of the objectives in dispute.

Superiority in the world of nuclear armaments has little meaning; it is an obsolescent concept. Even if this were not so, the attempt to attain a significant superiority in the
long-run would be costly and futile. The National Security Council determined in 1969 that due to Soviet nuclear power and ability to respond to technological improvements in U.S. strategic forces, superiority would clearly be impossible to maintain.12

Furthermore, attempts to achieve strategic superiority can generate fears, create tensions, and exacerbate the arms race for continually new and improved instruments of genocide. The public is led to believe a tragically expensive type of science fiction in the quest for military superiority, i.e., that this pre-eminence of power is both possible and advisable in an advanced nuclear age.13 What Americans and Soviets alike must come to realize is that efforts to gain significant military advantages will have more impact on overall levels of armaments and defense expenditures than on the strategic balance. It must be realized, too, that absolute security for one nation means the absolute insecurity of all others.

Less than ten percent of the U.S. strategic weapons arsenal would be needed to inflict fifty to eighty million soviet deaths in just the first effects of an attack.14 The overkill capacity on both sides is so great that the basic nature of military power has been transformed. Either of the nuclear powers can destroy the other, and neither can prevent the other from doing so.15

Currently any defensive strategy or technological innovation can be either saturated, overwhelmed, and/or evaded by a variety of nuclear and other offensive weapons systems.
Overall military power cannot today be defined as the sum of its parts. An improved warhead, a missile with improved penetrability, a faster fighter may produce just that -- but they cannot alter the superpowers' fundamental overkill capacity.16

Perhaps the following fact by its striking nature can give some insight into the exponential leaps with which annihilating capabilities have increased: "one plane, or one missile, or one underwater mine can carry explosive power equivalent to all the explosive released over Europe during the Second World War."17 Recall, as mentioned earlier, that the U.S. has over 18,000 thermonuclear warheads - 7,000 stationed in Europe and 11,000 more dispersed in bases in the Continental United States and the rest of the world.

Nuclear war - as long as present destructive capabilities exist (and they show no sign of declining) - could never be a rational alternative by any government which values the survival of even a small part of its population. Especially since both major powers have developed relatively invulnerable forces designed to ride out a surprise nuclear attack, the potential aggressor is in no way assured of comparatively fewer casualties by even an all-out first strike. Henry Kissinger believes it inconceivable that a

President [as well as a Premier] could ever gain sufficient confidence to stake everything on weapons for which there is no operational experience in wartime, on the basis of tenuous intelligence and with the certainty of tens of millions of casualties.18
In calculating costs of deterrence through Mutual Assured Destruction (MAD), it is apparent that the focus of such scrutiny must clearly rest with the advanced weapons systems. Some erroneously allege that the importance of strategic weapons is grossly overstated. They express the viewpoint that the bulk of defense expenditures are accounted for by the deployment worldwide of ground and naval forces.

This argument conveniently overlooks the fact that large weapons systems dominate both tactical and strategic missions. It is the body of major weapons systems around which the plethora of other defense expenditures revolves. While at one time it was the vast numbers of individual soldiers upon which the strength of an army rested, it is no longer so. The dominant expense is that incurred by researching, developing, procuring, and maintaining ultra-sophisticated weapons systems - e.g. the F-111 fighter or C-5A cargo jet, the Minuteman III missile, or the Trident or Polaris submarines. The masses of maintenance and support personnel are merely animate appendages of the modern machines of mega-death.

And the costs! The incredible, utterly incomprehensible costs! It has been estimated that it will cost more than $153 billion for the services to acquire 116 weapons systems currently being developed. If the reader-taxpayer still hasn't begun to clutch at his wallet, he may wish to do so before going further - because he's heard only the beginning. The costs of acquisition are just a small part of the weapons picture. Once developed and procured, the systems still must be
operated, maintained, and serviced. The costs of fielding and supporting weapons systems is estimated at from 5 times to ten times the cost of acquisition. 22

James B. Conant, assistant on the Manhattan atomic bomb project, vividly portrays the Defense Department in regard to research and weapons development, which "is not unlike the man who sprang onto his horse and rode madly off in all directions." 23 Any major weapon system may be a multi-billion dollar project. The political and economic impact of such a decision must not be overlooked. This defense contract will mean tens of thousands of jobs, instant interests groups, a gushing flow of funds from which many may draw "water". The interests of the career officer, the corporate chieftan, the blue-collar worker, and the politician all begin to coincide. The jackpot seems to pay all and promise the chance for more.

We turn now to consider the military and the defense industry for their special incentives, influences, and impacts on public policy and the budget.

Section Two

The National Security Bureaucracy is not a static, non-motivated grouping of disparate interests. Rather it is a collection of organizations and branches whose success and survival depend on fending off cut-backs and expanding the scope and perceived importance of their operations. This phenomenon exists in all bureaucracies; yet the most spectacular example of this bureaucratic principle is the military. Its unique,
pervasive grasp on society gained through power, fear-threats, institutional legitimacy, and the option of secrecy makes its position almost unassailable. The ultimate purpose of this organizational struggle is to increase the relative influence of its own being - with little regard for the position or attainment of other societal values. As soon as (and possibly before) the bureaucracy's political objectives are met, new claims and rationales will be advanced for increased amounts and types of benefits.¹

Henry Kissinger exposes one of the military's motives in *Nuclear Weapons and Foreign Policy*: "Each service seeks to get under its control every weapon...it considers essential, even if such a weapon already exists in a sister service and even though it is almost impossible to draw a definite line between essential targets for air, land, and sea warfare."² Each service desires a favored "place in the sun" and considerable inter-service rivalry is one of the results. Although the competition of this rivalry may make for a stronger military at a lesser cost than would otherwise be the case, the competition also promotes the logrolling of budget requests by the Joint Chiefs of Staff, who must pass them unanimously. The military budget requests tend to remain in three equal pieces - each at its maximum feasible level.³ Whenever the fear-threat can be successfully employed before Congress or the Executive, inter-service rivalries act with an accelerating effect - rather than as mutual checks - on military spending and influence.⁴
Although distinguishing strategic missions is impossible to accomplish simply by noting the service branch, there is little agreement between the services on the proper strategic doctrine. Partially because of this, each service struggles to obtain every weapon imaginable for the destruction of what it believes constitutes an essential target. One top policy-maker has gone so far as to suggest that it would be easier to permit a duplication of effort between, for instance, Air Force and Navy than to secure one's adaptation to the other's strategic doctrine. Enjoy, indeed, to incur exorbitant costs.

The pattern of the Defense Department as a whole is clear: it is one of undermining the Soviet deterrent while complaining that the other side may at sometime in the indefinite future undermine that of the U.S. Pressures go beyond traditional underestimation of cost and overestimation of performance of U.S. weapons systems being developed or procured. DOD invariably exaggerates to whip-up public and Congressional support for absolute U.S. security, which, of necessity, means absolute insecurity for all others - thus, a permanent arms race.

One might reasonably ask how, in general terms, the military attempts to "sell" itself and increase demands for its wares. One method is for the Pentagon to portray itself as a vendor of protection. (Lest the reader forget, as previously noted, there is admittedly nothing either super-power can do to significantly lessen its own catastrophic casualties once hostilities have begun.)
Find some common desire, some widespread unconscious fear or anxiety; think out a way to relate this wish or fear to the product you have to sell; then build a bridge of verbal or pictorial symbols over which your customer can pass from fact to compensatory dream, and from the dream to the illusion that your product, when purchased, will make the dream come true.

Thus we no longer buy a fighter (e.g. the multi-billion dollar F-111, whose wings have a tendency to fall off in flight), we buy security. We do not just procure an advanced tank (e.g. the MBT-70 which was cancelled after costs became prohibitive), we obtain deterrence from Soviet attack. Every new means of destruction contemplated becomes, according to the Pentagon, the "minimum needed". The remoteness of circumstances under which such a system would be the "minimum needed" is rarely offered, or for that matter, even requested during budget examination. Whenever the Pentagon's judgment is questioned, there is always resort to a psychological weapon known as "That's secret, sir. You wouldn't want to endanger national defense, would you?" After all, the money is being spent for "defense" against a foreign threat - not merely some frivolous welfare program!

If this, combined with a 40 million dollar public relations budget, still is not successful in casting out doubts, at least two strategies remain: double-think and the restraint of outside surveillance. An example of the first is tragi-comic because of its commentary on the level of thought in some top decision-makers. Always eager to save the taxpayers money, the Pentagon devised its own ingenious scheme for
The systematic perpetuation of ignorance of relevant facts is not the only means of defrauding the taxpayer and senselessly contributing to cost escalation. Sometimes the military's motives are attained through what may euphemistically be called a "bureaucratic truth" or more correctly - blatant lies. Senator Proxmire, outspoken critic of military excess and chairman of the Subcommittee on Economy in Government (of the Joint Economic Committee), has lost any naive credulity in regard to the military. Proxmire states his experienced cynicism this way: "The low initial [cost] estimates when weapons systems are authorized are not a matter of minor misjudgment or good faith miscalculation....They [the Pentagon] purposely underestimate the cost of these weapons systems in order to get them established and to get Congress and the country committed to them."\(^{11}\)

Expert testimony before Congress corroborates this point. The Director of Procurement Control and Clearance for the Navy explained: "We play games. We know that if we tell the DOD...how much something is really going to cost, they may scrub it. And they know that if they tell Congress how much it is really going to cost the Congress may scrub it."\(^{12}\)

The concealment of facts from Congress, false testimony, changing of internal cost reports, and collusion with industry all reflect, if not the actual violation of the law, certainly the law's irrelevance to the Pentagon. These "games" have meant that 90 percent of the major weapons systems procured end up costing at least twice as much as was originally estimated. The typical cost overrun may be from 300 to 700 percent.\(^{13}\)
This is not to say that the Pentagon pays no attention to the law. One might surmise that the military would be very conscientious in the enforcement of certain statutes like Public Law 85-804. In it is the provision that the Defense Department may designate any company "essential to the national defense." (N.B. the company receives such a designation, not a specific weapon or contract.) Corporations deemed "essential" may then be given contracts, beneficial contract modification, or funds with or without consideration (i.e. no corporate performance is required). Such decisions and grants do not require justification (i.e. the GAO may not investigate the decisions).\(^{14}\)

The GAO has maintained no statistics on the amount of funds authorized under PL85-804 or similar laws.\(^{15}\)

Fear-appeals, public relations, secrecy, and other tools used by the Pentagon have gained for it great success. No single organization with control of 430 major foreign bases and 3,000 other installations overseas, ownership of real estate in the U.S. greater than the area of the state of New York, with personal property holdings valued at 164.1 billion dollars, and with unique social, political, and economic position as are held by the military can be called anything but titan in a world of Tom Thumbs.\(^{16}\) If power is the base for more power, then it is no wonder that the military takes the share of the budget that it does. Unsurpassed decision-power over manpower, materials, and industrial production is possessed by the Pentagon.
But let us not forget its potent ally who enjoys many concurrent interests: the military's marriage partner - industry. This union is hardly an innovation of "New Morality". One is very safe in saying that profiteering (making excessive profits on defense contracts) is as American as the American Revolution or the War of 1812 or the Spanish American War, etc. Profiteering is as American as, why...capitalism.

Excessive profits made on the production of instruments of war is in no way novel. For instance, testimony before Congress during investigation of exorbitant pricing for armor plate in 1896 is revealing. It seems that the two sole manufacturers of warship plating, the Carnegie Steel Company and the Bethlehem Steel Company, got into some "hot water" over their questionable pricing policies. More than one set of eyebrows was raised, for example, at the discovery that Bethlehem was charging the Navy 200 percent the price being charged the Russian government for the same armor plate. Neither company would admit anything but the most up-right, straight-forward business practices, and Andrew Carnegie himself testified that a deep sense of patriotism was his sole reason for being in the armor plate business.17

Thus, profiteering is nothing new. But never before the Cold War had the opportunity for it persisted over so many years or on such a massive scale. A state of sustained fear and suspicion coupled with an institutionalized fervor for spreading the gospel of Americanism and a sometimes neurotic compulsion to prove the United States technologically
(measured in terms of product performance), in the decade 1957-1966 its after-tax earnings on investment were more than 10% above the aggregate for American industry. A one year study concluded by the GAO in 1964 revealed $500 million of waste on only 5 percent of military and NASA contracts during that period. A reasonable extrapolation of these figures would argue persuasively that during this one-year period there was approximately $10 billion of questionable charges to the government through defense and NASA spending alone.

Under the current contract system contractors in non-competitive situations (approximately 90 percent of all contracts are non-competitive) are provided with an incentive to increase costs and exacerbate inefficiency to maximize profits. Entrepreneurial investment of effort and equipment to enhance production efficiency tends to lower, rather than increase, long term profits. Incentives for the contractor strongly motivate him to cause the price of his weapon system to escalate.

Cost increases not only increase sales and profits, they also make possible continued retention and replacement of government-owned property, steady flows of progress payments, maintenance of skilled and unskilled labor pools, competitive advantages over smaller defense and commercial firms, and all the economic and political benefits that accrue from being a large and entrenched government contractor.

As indicated above, not only are defense contracts often-times exorbitantly profitable in obvious ways, but there are also enormous profits which could never be seen from looking at a firm's profit and loss statement. Benefits which are not
"profit" are numerous and significant. Firms acquire all patent rights gained through advances in technology at the government's expense. The firms are then legally entitled to all earnings from what is truly "government-owned" knowledge. Hidden profits accrue to the firm whose production inefficiency gains it a larger sale base. The corporation is also able to lower its average total cost of commercial production by passing part of general administrative expenses and overhead along to the taxpayer. The House Select Committee on Research and Development reported in 1964 that scientists and engineers were being maintained by contractors in standby "brain-pools" to enhance their positions in bidding on and receiving new projects. As such, these costs can be passed along to the government as overhead while simultaneously the possibility of competition in the industry is decreased through the difficulty of entrance of new firms.

Any industry which incurs profits in the magnitude cited above certainly will have an extremely potent interest in maintaining and enlarging the market demand for its product. The defense industry is obviously no exception to this rule. That is the nature of private enterprise. Yet, the matter is open to serious question whether the defense industry may be legitimately called "private enterprise".

Renowned economists like John Kenneth Galbraith reject this idea and say instead that corporations such as North American-Rockwell, Lockheed, General Dynamics, and Boeing are in reality public extensions of government bureaucracy.
Nevertheless, the popular misconception that they are private opens the door to a host of means of increasing weapons systems development and procurement. The methods range from direct lobbying to financial support of pro-military, "private" organizations.27

Even military strategy may be affected by defense industry desires. The major concern of those heavily dependent on defense contracting is strategic weapons systems. Consequently, this industry has a vested interest in assuring the position and increasing the funding for the systems.28

The unique market structure of supply and demand for armaments has a marked effect upon the industry. Defense production is characterized by oligopoly and monopoly.29 In 1967, 15 companies (including nine of the largest defense contractors) held 84 percent of the $2.6 billion of government-owned production equipment.30 The top ten defense subcontractors received 80 percent or more of all subcontracts. The leading subcontractors were often themselves major prime contractors.31 While some might allege that the oligopolistic market structure is the result of economies of scale, such an explanation is far from complete. To a considerable extent, it is because the government concentrates defense spending in so few firms, that it appears obliged to do so.32

In partial consequence of this market structure, major aerospace firms depend on the government for as much as 95 percent of their business.33 Just twelve aerospace contractors accounted for more than 55 percent of the industry production,
which averaged $9 billion annually (1966-1969) in DOD purchases. Incompetence, extravagance, and mismanagement all have the tendency to increase, rather than decrease, profits and are subsidized the federal government.

Large corporations have the advantage of averaging their profits for investigative purposes. Thus, excessive profits can be made where there is no competition and monopoly and smaller profits earned on competitive contracts. This has two negative consequences for those outside the vested interests: A) the large corporation's ability to average profits allows it to underbid smaller firms, and thereby virtually eliminates meaningful competition; and B) a conglomerate's subsidiaries cannot be adequately checked for extra-legal profits which may be hidden in the mass of sub-corporations and accounting intricacies. Small business is discriminated against; the most recent trend has been towards further decreasing small firms' already minor share of contracting. 36

A policy shift in the 1960's to the production of fewer, more technologically advanced, multipurpose weapons has had a great impact in a number of areas. Because production capacity became excessive, obtaining government contracts (especially in the aerospace and ship-building industries) became a matter of economic survival for many firms. This has induced contractors to propose unrealistically low price estimates, to promise above what can be realistically delivered, and to stress weapons sophistication. The enormous amount of funds involved in just one program also increases the problem of
allocating resources among and within the services, since the
decision to proceed with a project creates a powerful inertial
effect and virtually guarantees a branch's secure "place in
the sun" in DOD.37

Contractor performance, sometimes unconsidered due to
a sense of awe at the incredible flying machines and their
technological refinement, has often been stunning - not amazingly
good, that is, but shockingly poor. Some comparisons with other
nations' war industries may be very illuminating. Apparently
"good ol' American ingenuity" isn't all that ingenious. While
a U.S. contractor might use several hundred engineers on a sin-
gle component of an advanced fighter, the usual French or German
development team will vary from three to fifty engineers on an
aircraft or from three to ten on an electronics project. In
stark contrast to the American practice in aerospace engineer-
ing departments of having almost twenty administrative personnel
for every technical employee, the ratio for European development
is just the opposite.38

Failure of contractor performance is even more profound
when measured by other indices. Most people assume after con-
cstantly hearing of weapon - sophistication improvements that
armament effectiveness is improving. But, "it ain't necessarily
so." Modern high-cost aircraft avionics (electrical and elec-
tronics systems, e.g., advanced radar and guidance controls)
have been appraised by knowledgeable sources as being in some
cases from 20 to 300 percent less effective than World War II
iron bombsights.39 Richard A. Stubbing, weapons system analyst
for the former Bureau of the Budget reported, "Less than 40 percent of the effort [during the 1960's] produced systems with acceptable electronic performance." Of thirteen major aircraft and missile programs dependent on complex electronic systems procured by the Navy and Air Force from 1955 to 1970, only four performed at a level 75 percent or above their required contract specifications. Five had performance levels under 75 percent of requirements. Four more were eventually cancelled because of poor reliability or unacceptable cost escalation.

Schedule slippages of from six months to three years were noted in 34 of 57 major weapons systems selected for examination. Performance levels were below requirements in 29 of the systems. (Seventeen of these experienced both improvement and degradation of performance.)

Even the untrained eye is not strained to see the effect of poor contractor performance in higher costs. During a six-year period the C-5A cargo jet increased in cost by $26.6 million to reach a price of $55 million each. The B-1 bomber, proposed successor to the B-52 and problem-plagued FB-111, experienced cost escalation of 44 percent in three years. Present estimated per unit cost for the B-1 is a shocking $51.5 million.

Neither are the examples cited strikingly atypical. Between 1950 and 1968 the real cost of the average bomber and military transport plane rose 300 percent and the average fighter almost 800 percent.

The money that bought 100,000 fighter aircraft during World War II, when adjusted for inflation would buy less [sic] than 1,000 F-14 fighters today. The money that bought 57,000 tanks during World War II would now buy fewer than 2,000 main battle tanks.
This cost growth was principally a product of increasing performance demands and the subsequent technological difficulties that must be overcome to achieve them. These factors can be expected to push costs ever upward - no matter how well the programs are managed.

What is far less obvious is whether "advancing the state-of-the-art" (as it is affectionately known in Pentagon circles) is always worth the price. Case and point: each engine for the F-15 fighter costs over $1 million. A DOD expert estimated that about 20 percent of the total price was added by increasing thrust 5 percent.48

Constantly escalating weapon sophistication has negative military ramifications quite apart from cost growth. First, these systems become lucrative targets for enemy attack and thus are top priorities for destruction. Because loss of a relatively few weapons or planes may significantly affect military capabilities, real defense is downgraded. Secondly, since large numbers are prohibitively expensive, deployment to a war theater is sparse. Third, due to increased complexity, the ratio of system readiness time to "down time" is worsened. Thus, weapons sophistication - the highly extolled panacea of the modern military - creates serious problems in effectiveness, cost, and defense considerations.49

In Section Two the military and industry were reported on in terms that maximized their individual entities. Section Three will seek to expand on this, emphasizing the coincidence of interests and explain some of the working relationships of the Military Industrial Complex.
Section Three

What is meant by the term "Military-Industrial Complex" or MIC? Briefly, the concept is that a potent and entrenched military establishment will almost inherently develop mutual ties with the industry which supplies weapons designated as the "minimum needed" for deterrence and defense. Civilian firms and numerous citizens prosper on the fat of massive defense outlays. Those benefiting from the system are induced to seek its further expansion to enlarge their influence and profits. A multiplier-effect of mutual self-interests and dependencies gradually develops and secures the support or at least acquiescence of politically relevant characters. The result is a complex: labor unions, industries, educational institutions, business leaders, scientists, generals, and politicians - all of whom find their interests in part or largely attainable through perpetuation and growth of the military establishment and its civilian appendages.

Within this complex the distinction between buyer and supplier becomes ever more blurred. Decisions normally made by business management are gradually taken over by the Department of Defense. A new relationship is created in which DOD prescribes detailed development and production procedures to companies selling the weapons systems. As a consequence of this and the sheer dollar power of the Pentagon, the distinction between the health of the military and the economy in general becomes hazy.
Almost 90 percent of all DOD contract awards, which average well over $40 billion annually, are given without competitive bidding\(^2\) - a practice which experts like former Defense Secretary McNamara believe adds from 25 to 50 percent to the cost of weapons procurement.\(^3\) The most common method used by DOD in selecting a contractor and determining price is "negotiation" with a single source of supply. A limited rivalry among two or three firms may be conducted. The Pentagon recognizes the importance of price, but this factor is only one of many. Estimated technical performance, delivery schedules, and other variables may be the decisive points in any given case. Nevertheless, "the history of procurement does not demonstrate the Pentagon's ability to obtain quality from its contractors, much less timely or economical performance."\(^4\) For example, Boeing, after having had its designs rejected for the C-5A project, used them to build the 747, a plane similar in size to Lockheed's C-5A. Very significantly, the 747 sold commercially for $22 million each, the same price quoted to the Pentagon earlier,\(^5\) while the C-5A's estimates missed the mark by $26.6 million per plane!

Military buyers have a wide variety of methods available which add to the contractor's profits and which make obvious the commonality of interests in the MIC. It seems at times almost magical the way a negotiated, "fixed-price" contract becomes a cost-plus situation. Although long illegal because of its obvious cost escalation incentive, the cost-plus approach is quite easily attained through what is known in the jargon as "contract nourishment".
Contract nourishment is accomplished through the "change notice," which is a government-requested design modification for which an increase in price is allowed. On a technologically sophisticated weapon, changes may number in the thousands as new knowledge is gained and novel difficulties are faced. Many of these changes are justified and may improve the functioning of the system. However, the military's traditional loose enforcement of contract terms alerts firms to the fact that even if costs run higher than anticipated, the Pentagon may simply agree to pay them using a change notice as an excuse. The change notice, thus, sometimes becomes a convenient means to more than cover contractor mistakes or boost his profit.

The government may not only agree to reprice the weapon in favor of the contractor, but often chooses not to enforce many of its previously guaranteed rights. At times the unenforced obligations lie at the very heart of system performance; claims waived include the right to have the Federal Aviation Administration certify the quality and airworthiness of a plane and the right to refuse delivery of defective products and weapons.

A practice which has increased sharply and which puts the government in an extremely weak contractual position is the letter contract. This is an informal means of written authorization for a firm to proceed on government work, providing a minimum of protection against cost increases and corporate claims. From 1965-1968 the value of these contracts rose from $1.2 billion dollars to $7 billion.
The bargaining position of the weapons producers, which is tolerated by the Pentagon varies from powerful corporation to deity. Sometimes the entire contract is abrogated and restructured with no penalty along the lines set down by the weapon supplier. This drastic measure usually follows the threat by a contractor to stop work unless his demands are met on a project deemed vital to national security.9 The reader will also recall Public Law 85-804 and its potential for distributing funds without increasing contractor obligations. (See above, page 14).

Yet another means of fleecing the taxpayer is the reimbursement of firms under the accounting title of "other technical efforts". Under this category, independent research and development having no relation to defense is nevertheless underwritten by DOD. "Under existing practices," explains Senator Proxmire, "a defense contractor could carry on commercial research, bid on commercial business, and yet charge from 80 to 100 percent of the individual costs as overhead on his defense work." During fiscal year 1969 some $685 million was paid out by the Defense Department under such practices.10

Congress, in the early 1960s, responded to cries about overpricing in absence of competition with the Truth-in-Negotiation Act, which required certified cost data to be submitted for price determination. However, in 1967 the GAO found that of 185 instances selected for study where the data was mandatory, no certified costs had been supplied in 165 of the cases. The implication of the study was that no data had
even been requested - in direct violation of the law. If the government insists on truth-in-negotiations, and if, as in some cases, the companies refuse to sell, officials waive the act.11

A means of objectively determining how and when costs and performance deviations occur was instituted in 1968. Known as Selected Acquisition Reports (SAR), these summaries of cost, schedule, and performance data were to enable program managers and their superiors to assign blame, reward competance, and locate "snags" in the system. It was and is an excellent idea.

Even so, the SARs omit crucial data necessary to evaluate weapon, government, or contractor performance. The following is illustrative of the omissions: The reports failed to clarify that end-items were delivered without crucial sub-systems. Comparisons of quantities delivered with those scheduled for delivery did not appear. Although appraisal of technical weapons features are required, the reports did not indicate the comparison of contract-specified performance with actual performance. Nor did most SARs isolate reasons for program delay although required to do so.12

The Truth-in-Negotiations Act and the Selected Acquisition Reports are examples of well-intentioned bills and regulations which fall short of success largely due to indifferent enforcement. Implicit in the relations between buyer and seller has been the understanding that it is not the theft from the citizen that is so wrong - rather, the true error comes in being caught. And, many times, fellow members of the MIC
perceive their greatest benefit in the cover-up - much to the misfortune of those who pay the bill.

Within the Military-Industrial Complex opportunities for conflict of interest are pervasive and may be highly profitable. (There is a nearly worthless conflict-of-interest law "on the books"; but again, writing the law has done little to enforce it.) In the decade from 1959 to 1969 the number of high-ranking retired regular officers employed by the 100 largest defense contractors tripled to reach a figure of 2,100. Just ten of the larger contractors employed 1,100 of them.\(^{13}\)

Known in the trade as "rainmakers", these retired military personnel do not have to "sell" anything. However, if in the course of their functioning as "technical consultants," they should happen to drop a word in the ear of an old friend still in the service about their program or set up an informal meeting between previous subordinates and current employers - all the better for them, their job, and their company.

In reference to the matter of conflict of interest corruption, and dishonesty, this writer feels it necessary to reject emphatically the notion that practices like these are at the core of the problem to which this thesis is directed. Such analysis is not only superficial but also does a deep disservice to the vast majority of public servants, who seek to carry out their positions with competence and integrity. The real point is this: a host of factors from apathy to xenophobia encourages unnecessarily high expenditures for the
military. Those who are most intimately involved in defense are those most capable of making beneficial change; yet, sadly enough, it is those individuals who are many times least disposed to eliminate the excesses.

One area of the defense budget—Research, Development, Testing and Evaluation (RDT&E)—may serve well as a heuristic microcosm of the MIC. Here may be found almost all of the symptoms of the complex at their most potent. At least one reason can be given for this: R&D, though only a fraction of the total program cost, determines how enormous sums of money will later be spent. Research and Development, in short, is the thin edge of the budget wedge. The few million dollars spent initially may, and probably will, lead to multi-billion dollars to be spent in the future. Thus, although funded for only roughly $8 billion to $10 billion annually, it is out of these early "seed" investments that the "ripened" major defense expenditures will later grow.

The advanced state of technology and the huge amount of capital needed for RDT&E have created new relationships between government and industry. The rule of the marketplace no longer applies to the development and production of weapon systems. The absence of competition is a key factor in this relationship.

The tendency of firms doing R&D also to receive the production contract, as well as the Pentagon's tendency to purchase spare parts and even off-the-shelf items is what is generally meant by the term "lock-in". That is, government
becomes "locked-in" to a single source of supply. Since the contractor is aware that corporate "blue-skies" are ahead once his R&D bid is accepted, he has an incentive to underestimate seriously program cost and overestimate performance.

The interests of MIC are not static. If this were so, the complex would soon lose influence because its loss of ability to distribute benefits. For instance, once all the ICBMs or ships or planes desired had been produced, the labor union component of the complex could not be expected to (other things being equal) maintain its support without being rewarded. Thus, constant change and obsolescence of the product is necessary.

An arms race is the perfect background for such a market. Fear appeals, propaganda about foreign intent, and even rational appraisals of the balance of power may militate towards increasing technology in weapons development. However, the compulsion to advance the state of the art for split-second community incineration is often not subject to rational analysis. Although as Henry Kissinger insists, "Power has become disproportionate to...objectives in dispute," there is apparently no point where a level of satisfactory overkill is attained.

Most resources are spent on systems to replace systems performing the same or similar types of missions. Each successive generation of new weapons pushes the state-of-the-art of destructive capabilities and, as a result of weapons complexity and performance demands, costs are driven up. "Electronics technology has spawned new countermeasures and counter-countermeasures to mislead and confuse the opposing sides."
R&D awards sometimes also serve a covert purpose of the MIC. Programs may be maintained on fairly meager budgets while Executive or Congressional resistance to them is high and resurrected when opposition to the project has lessened. Traditionally, Congress and the President have had great difficulty resisting requests for research on the scope of a few million dollars. As a result this and the miracle of science, programs once thought dead, live again and feast on multi-billion dollar budgets. For example, the B-70 bomber -- apparently "killed" during the Kennedy Administration because of its doubtful strategic value -- was sustained at low research dollar levels and variously renamed the RS-70, and Advanced Manned Strategic Aircraft (AMSA), until brought to life again as the B-1. Current estimates place per unit costs for the B-1 at more than $51 million.

The matter of weapon system cost growth, already discussed for its magnitude and relationship with other factors, is fundamental to an understanding of the social impact of the Military-Industrial Complex. The following section will deal with the causes of the rising cost of "defense" and weapon system cost escalation.

Section Four

Fiscal Year 1975 budget requests for Research and Development have been set at $8.4 billion - $1.4 billion more than appropriated for FY 1974. The total defense budget, if approved
would stand at $92.6 billion ($85.8 billion for FY '75 with a budget supplement of more than $6 billion for FY 1974). Almost a full third of the budget would be used directly for R&D and procurement.¹

Though not easily calculated in real dollar terms, a large part of the reason for high defense costs results from the lack of integration of service missions and objectives. It seems that each branch seeks to be a totally autonomous defense force, even though missions cannot be strictly defined. Senseless duplication is an enormous waste of effort and for-gone opportunities. Oblivious to these facts, for instance, the Army demands surface-to-surface missiles, surface-to-air missiles, and the host of ultra-sophisticated and ultra-expensive subsystems to support them. Were there no such entity as a United States Air Force, one could well justify the need for these or similar tactical forces. But what in heaven's name would the Air Force be doing during an overt attack for which these weapons would be needed - polishing its fighter planes?

The Army alone is currently developing or procuring at least seven missile systems - just one of which is estimated to end up costing almost $5 billion. The Navy is developing or procuring at least 7 planes and 8 missile systems. One of the Navy's aircraft systems is estimated to eventually cost $6 1/3 billion; the estimated price for one of its missiles: $687 million.²
The AWACS system (Airborne Warning and Control System) is illustrative of the military's lack of cost-conscious analysis of realistic threats. The mission of the system is to "provide airborne early warning of a bomber threat and command/control of tactical interceptor force." The cost is conservatively estimated at $2,652.7 million.\(^3\) This amount would serve to protect the Continental U.S. against attack from approximately 150 Soviet long range bombers. Perhaps approximately $2.6 billion on one such system does not seem too high a price to pay for an improved protection from a bomber threat.

Yet consider the expenditure from the following viewpoint: These incoming intercontinental bombers cannot fly at speeds much faster than 500 miles per hour. Unless suicide-type missions were planned, re-fueling would have to take place somewhere over Alaska. Suicide-type missions, furthermore, would leave the USSR with no bargaining position after a cessation of hostilities, since it could not threaten additional enemy losses. Also included in the calculation must be the reality of 599 U.S. fighter-interceptors, 19 additional National Guard squadrons, and Canadian air units attached to Norad.\(^4\) Existing early warning systems (the Dew Line and the SAGE System) can and will provide advance knowledge of an attack.

Most important, the AWACS systems is inconsistent with the U.S. strategic doctrine of deterrence. Once it is conceded that either superpower can inflict catastrophic damage on an enemy's homeland with little or nothing the other can do about it (as both the U.S. and USSR recognize), the only
viable strategic doctrine is to make potential enemy gains far less than losses - i.e., deterrence. To this end the superpowers have developed relatively invulnerable forces designed to "ride out" the aggressor's first strike through concealment, "hardening", and mobility.\(^5\)

As technology constantly advances, two developments occur: A) With the advent of novel weapons technology, improvements are projected into Societ capabilities, thus creating new contingencies to be covered by U.S. forces; B) The novel technology makes more feasible the development of new weapons to guard against potential threats previously thought impossible to neutralize. These factors combine to produce ever more sophisticated and expensive weapons and ever more contingencies to be offset.\(^6\)

The General Accounting Office estimates that it will cost more than \$153 billion for the DOD to acquire the 116 weapon systems presently being developed. Multiply this \$153 billion by a factor of 5 to 10 for the cost of fielding and support (see page 7), add the two, and the reader may begin to "grasp" the unfathomable cost of major weapon systems.*

The GAO cites three principal causes for these astronomical costs, A) inflation, B) "increases resulting from the greater capability demanded of new systems, which, in turn, require greater complexity," and C) a catch-all grouping, "increases

*Using an average multiplier of 7.5, this figure equals 11,628,000,000,000 dollars, i.e. 11.6 trillion dollars.
resulting from the way a weapon program is managed during
development, design, and production.⁷ Each of these rea-
sons will be examined respectively.

Inflation is almost universally claimed as a justifi-
cation for price increases. It is true that inflation can
reasonably be blamed by DOD for escalating the costs of its
weapons. But actually, how much of the price increases is
due to this single cause? The House Committee on Appropria-
tions declared in its report of December 3, 1969, "Inflation
accounted for only 11.4 percent of the total cost increases
identified. It can be said that cost overruns in fact have
contributed to inflation."⁸ With higher rates of inflation
in the years after 1969 it can be assumed that this reason
may account for a somewhat larger share of cost growth. Some
sources in fact place the share as high as 30 percent.

The second major reason given by the GAO for cost
escalation is the constant trend toward weapon sophisti-
cation. As has been noted several times, the emphasis on advancing the
state-of-the-art invariably forces the price of newer weapons
higher. Successive generations of systems may sometimes make
the old system "obsolete" even before a potential enemy can
itself devise a countermeasure. Most U.S. military resources,
in fact, are invested in new systems to replace others perform-
ing the same kinds of missions. The GAO suggests that adequate
data does not exist to appraise net mission or combat effective-
ness of these technical improvements. Nevertheless, "a com-
parison of the latest generation of eight weapons - such as
military and transport aircraft, helicopters, missiles, tanks, and torpedoes - shows that the cost of a successor system is between two and six times greater than that of its predecessor.\(^9\)

The third major reason for cost growth according to the GAO may be termed "program management" failure. Since this is a vague category, it must be broken down and analyzed in more detail. One component of improper management is inaccurate program cost estimation. After extensively studying 57 selected major weapon systems, the GAO determined that improper contractor and military cost estimates were responsible for about 25 percent of the total cost overruns.\(^10\) Strong motivation exists for the contractor to propose unrealistically low cost "approximations" and for the service representatives to accept as valid what are sometimes only very optimistic guesses. Incentives are manifested in: A) unrealistically high performance requirements, B) the assurances of price estimate correctness in spite of sheer difficulty of determining unknowns and predicting technology, and C) "overoptimism on the part of the bidders and the buyers or even 'buying-in' in the hope of recovering possible losses through engineering change orders."\(^11\)

DOD has possessed capabilities to apply far more accurate estimating procedures than it has used. "Parametric estimates[ as they are known] are very close to actual performance...and substantially higher and better than the contractors' original proposals."\(^12\) For example, parametric estimates predicted that both the F-111 and C-5A contract bids were far below reasonably anticipated costs. Perhaps because of this, the parametric analyses were ignored.
Unrealistic performance promises, overly optimistic cost predictions, and erroneous appraisals of difficulties inevitably cause engineering changes, schedule slippages, and cost increases. It is widely accepted among government investigators, survey teams, and Blue Ribbon Defense Panels that one of the most significant reasons for like failures is the lack of substantive, initial definition of mission requirements and the technical specifications necessary to achieve them. Preliminary planning, according to the GAO, must be greatly improved. Weapons systems are sometimes acquired "before it has been adequately demonstrated that there is reasonable [emphasis added] expectation of successful development." \(^{13}\)

A good example of the result of such administrative incompetence is the Cheyenne helicopter. The cost of the Cheyenne per unit rose from \$1.4 million to \$2.4 million. Cancellation of the program was eventually due to unacceptable performance. \(^{14}\) Brochuremanship - the practice of selling the services of a weapon system before there is minimal assurance of its performing according to specifications - may be able to get a program "off the ground", but it certainly cannot keep it there. Apparently the Pentagon has forgotten at least one thing when it comes to the world of weapons development and procurement: Look before you leap!

By the time production gets underway, DOD and the taxpayer have made heavy commitments to the program. A failure at this point becomes a political "hot-potato". Cancellation then or later creates bad publicity for officials and program
managers - not to mention the lost profits for the failing producer. GAO credits these factors for creating "a strong bureaucratic reluctance to halt or cancel a development program." The same factors may also induce something like a "sweet-lemon" mechanism. That is, for fear of revealing a gross mistake, officials continue to suck on the lemon, hiding a grimace, and extolling the fruit's sweetness until it can be tossed discreetly "under the table".

Competition is significantly absent in prime defense contracting. Former Secretary of Defense McNamara estimated that items procured through competition cost the government 25 percent less than similar items procured through negotiation. Other experts believe that the lack of rivalry means a 50 percent cost increase. Admittedly, some contracts, because of requisite technical "know-how", can only be realistically bid on by a few firms. Yet this cannot excuse the overwhelming majority of cases where competition is lacking.

Of the total dollar value of DOD procurement for fiscal year 1970, only 11 percent was formally advertised and an additional 27 percent was negotiated on the basis of price competition. A total of 57 percent was placed on a sole-source basis, and the remaining 5 percent involved design or technical competition. Advertised prime contracts, which only amount to 6 percent of total sales reported, appear to be the least profitable for contractors.

The method of contract profit determination singularly militates toward weapon system price escalation. It has been noted previously that up to 90 percent of any given program's
cost is periodically assumed by the government through pro-
gress payments. Because of these payments, true contractor
investment may be kept at a minimum while keeping real profits
high. Further, adverse criticism may be avoided by legiti-
mately claiming that profits, as a percentage of sales, are
extremely low. It matters little that in documented cases true
profit of at least 6,500 percent\textsuperscript{18} has been "earned"; it matters,
rather, that criticism may be diffused by quoting a patrioti-
cally low (but incredibly invalid) profit margin. Industry
may thus "have its cake and eat it, too."

The General Accounting Office reported in its Defense
Industry Profit Study that there are "no formalized procedures
for the development and consideration of [contractor] invested
capital in negotiating contracts." Because this GAO report
documents the situation so clearly and concisely, it will be
quoted at length.

Further, only minor consideration is given to the
use of Government-owned facilities....
In the case of a contractor having no Government
facilities, there is no provision for increasing
his profit percentage to compensate him for adding
privately owned facilities. In fact, since the
acquisition of improved facilities should result
in reduced costs, his profits on negotiated follow-
on contracts would probably be reduced....
Facility investments, soundly made, generally reduce
total contract costs. Under the present ASPR [Armed
Services Procurement Regulations], however, facili-
ties, investment tends to lower rather than increase
profit dollars on negotiated contracts.

The acquisition of facilities that increase
efficiency may affect the ability to obtain a con-
tact....however, if a contractor can get the busi-
ness without additional facilities investment, he
can expect more dollars and a higher percentage of
profit on invested capital by refraining from invest-
ment as much as possible and allowing or causing
expected costs to be as high as will be acceptable....
Most of the contractors stated frankly that they invest as little capital as possible in facilities for production on negotiated contracts in order to avoid reducing their return on invested capital.19

In summary, then, contractors are provided with an incentive to increase profits by increasing costs. It is currently inevitable that fantastic sums of money are squandered to perpetuate inefficiency, since (it should be recalled) almost 90 percent of the Pentagon's contract awards amounting to about $40 billion annually are given without competitive bidding.

Perhaps the comment is overly cynical, but it sometimes appears that the government generally and the Pentagon specifically are less than willing to make substantive investigations for fear of what they may discover.* Because of the lack of uniform accounting procedures in the defense industry, investigators are very limited in their ability to discern if costs are being accurately charged or if profits are being passed on to the government as hidden costs.20 Variations in accounting standards also complicate the auditor's task of determining how component parts are priced, how depreciation is being manipulated, and how overhead and indirect costs are charged. These complexities and auditing impediments enable contractors to shift costs from commercial work to government work or from fixed-price to cost-reimbursement agreements.21 DOD does not require suppliers to keep detailed records of

*In view of the Watergate revelations, perhaps my "overly cynical" comment borders on sublime naivete."
how change orders, (see page 26) affect costs and contract price. Such "contract nourishment" can then be used to disproportionately inflate costs, contract prices, and corporate profits. Ignorance may be euphoric; but in this case, at least, it is certainly incredibly expensive.

In spite of all that has been said about cost increases, sometimes they are justifiable or even highly advantageous. In a small number of cases, incorporating the latest technology even after production has started may increase the overall cost effectiveness of the system. The development of a novel weapons system is based on conjecture. Costs may increase as suppositions and theories prove wrong. But it cannot be overstated that the prices paid for modern weapons systems are exorbitantly in excess of what may be justified by legitimate excuses.

Intentional ignorance, institutionalized biases, the attainment of narrowly motivated incentives contrary to the common good, and the lack of accountability all contribute to setting the price of "defense" at astronomical levels.

In the following two sections, the matter of Executive and Legislative oversight (i.e. scrutiny) of the military budget will be considered.
Section Five

Prior to the submission to Congress of the proposed budget for the following fiscal year, the Executive, through its agent, the Office of Management and Budget (formerly known as the Bureau of the Budget), receives budget requests from all departments, bureaus, commissions, etc., for their operations during the next fiscal year. It is the task of the OMB to determine the "proper" funding levels for the agencies. It must discern, for instance, whether society is better served by more federal highways or more money for cancer research. Obviously, the task is monumental. It is also intensely political, for it is at the funding level that true national priorities become most obvious.

The OMB does not simply staple department budget requests together and submit them in toto to Congress. Rather, OMB functions as the "right hand" of the President deciding which national goals must precede others, which programs may flourish while others die. Thus, society (in theory) attains the greatest utility for its limited funds through the OMB acting as a super-agency to coordinate planning and programming for the Chief Executive.

Budget requests of the military services are regularly reduced by the Administration by from 10 to 20 percent before being submitted to Congress. This may be largely the result of the law of anticipated reactions and political sagacity. Realizing that Congress may feel compelled to scrutinize more
zealously a budget which is obviously unreasonable, the executive shows wisdom in not pressing the issue *ad absurdum* but in tempering the requests and claiming moderation, frugality, and fiscal responsibility.

The Department of Defense occupies a unique position in the struggle for funds. In the Cold War it has largely eluded oversight by the OMB. Apparently, the super-agency arbiter of national priorities is not "super" enough to impose its will upon the Pentagon. Robert McNamara while Secretary of Defense testified to the House Armed Services Committee chaired by Mendal Rivers: "The Bureau of the Budget has absolutely no authority to determine in any way the budget of the Defense Department. [The Bureau is] not in the chain of command with respect to the Defense Department."²

This "special status" for the military is not a recent phenomenon. Maurice Stans testified in 1959 while the head of the Budget Bureau: "We do make eliminations and review them with [civilian] agencies....But in the case of Defense, we do not make eliminations or determine a budget figure."³ The Budget Bureau once had a significant influence over military spending, but the Joint Chiefs of Staff were successful in their plea that the Defense Department ought to be exempt from central civilian planning.

In 1969 President Nixon's budget director, Robert P. Mayo revealed that only about 10 percent of the OMB's analysts (i.e. approximately 30) review defense spending, although defense is responsible for about 80 percent of relatively
controllable federal spending.\(^4\) (Relatively controllably funds do not include transfer payments, such as trust funds, over which there is little fiscal discretion.)\(^5\) Despite economies of scale of personnel in budget analysis, it can be fairly stated that only 15 to 20 percent of the OMB's analytic effort is engaged in reviewing 80 percent of the controllable budget, i.e. military spending.\(^6\) Thus, since the OMB is limited to superficial examination of the military budget and excluded from imposing a ceiling on Pentagon spending, the responsibility must fall almost entirely with the Secretary of Defense and the President.

According to Charles L. Schultze, former budget director under President Johnson, the budgeting procedure could be improved, but that procedure was not the most relevant consideration. Since the President could have the Budget Bureau carefully scrutinize any area he so desired, the real issue, Schultze said, is whether the President feels he can effectively question military judgment. Pressed further by what he was suggesting about Presidential deference to the military, Schultze responded that the Executive could question "military judgments," - but could not "in the basic environment of the Cold War and the post-war era question military judgments to the point where the President will possibly face a major attack on the grounds of undercutting the security of the United States."\(^7\)

Questioned before the Holifield Committee in March of 1969 as to why the Pentagon received preferential treatment by the OMB, the Deputy Director of the Bureau and longtime civil servant Phillip S. Hughes replied:
The most relevant consideration is, in blunt terms, sheer power - where the muscle is... the Secretary of Defense and the defense establishment are a different group to deal with, whether Congress is dealing with them or whether the Budget Bureau is dealing with them.8

According to former Budget Director Schultze, probably the single most important factor in rising military budgets is that "some of the most fundamental decisions which determine the size of these budgets are seldom subjected to outside review and only occasionally discussed and debated in the political arena."9 Questions are rarely raised, for example, about the real utility of a new main battle tank whose primary mission would be to operate in Central Europe during a tactical nuclear war or germ-warfare environment. Or, why are funds really necessary to replace the 18 billion dollar SAGE continental air defense system? This SAGE system, now in need of replacement according to the military, was developed and deployed to counteract the supposed Soviet intercontinental-bomber strike threat which has never materialized.10 Now, says the Pentagon, a more technologically sophisticated (and incidentally, more expensive) weapon system is the "minimum needed" to deter a Soviet bomber strike. Tragically, there are few, if any, within the Executive who have successfully managed to raise the most important question: Why?

President Johnson, while perhaps leery of questioning military judgment of how much should be spent on defense, was certainly determined about where it should be spent. In the first three years of Mr. Johnson's presidency, the Pentagon increased military procurement in Texas over 500 percent to
reach a total of $1.25 billion; Texas advanced from eleventh - to second largest recipient of DOD outlays. Texas, always known as a great producer of cattle, apparently during the Johnson Administration realized the importance of "Pork."

Section Six

Congress, through its ultimate control of the authorization and appropriation of all funds which may be legally spent by the federal government, potentially exercises enormous power. Section six will deal at length with congressional consideration of the military budget - focusing especially on the relevant committees, subcommittees, and key political figures and positions. Both particular strengths and weaknesses of legislative oversight will be discussed.

The reader must recognize before proceeding further that Congress is an extremely complex body; generalizations about its basic functioning and operations, while important to an understanding, may consciously or unconsciously omit relevant detail and impose overly restrictive conceptual frameworks. Congressional scrutiny, however, is too important to the matter of military appropriations and the role of the armed forces in society to be overlooked because of anticipated complexities.

Budgeting lies at the heart of politics. Federal spending has an incalculable effect on American society and an impact throughout the world. Appropriations determine the survival
or cessation of programs influencing the fates of many millions of individuals. It is natural that the powerful instrument of the budget should be subject to political pressures since disparate interests will seek to optimize personal, sometimes, mutually exclusive, gains.

Congressional deliberations of the military budget (and in other budget areas as well) are swayed by considerations which may seem unrelated to the determination of the "correct" defense appropriation. Representative Jamie Whitten (D Mississippi), member of the House Appropriations Defense Subcommittee, stated it this way:

I am convinced defense is only one of the factors that enter our determinations for defense spending. The others are pumppriming, spreading the immediate benefits of defense spending, taking care of all services, giving all defense contractors a fair share, spreading the military bases to include all sections, etc....We see the effect in public and Congressional insistence on continuing contracts, or operating military bases, though the need has expired.1

Budgeting practices have been described as "specialized, incremental, fragmented, sequential, and nonprogramatic" - implying that the budget is never systematically considered and its component parts coordinated. Aaron Wildavsky, in his book Politics of the Budgetary Process, states that this apparent lack of "coordination" is in reality often the result of conflicting political viewpoints held by individuals and organizations with independent sources of influence in society and Congress. Wildavsky advises that the only way to attain "coordination" in such cases is for one side to convince, coerce, or compromise with the other.2 Thus the budget may be seen in
many cases not as the rational compilation of measures to meet society's articulated needs, but rather as the somewhat "hodgepodge" record of various interests' abilities to out-maneuver or overpower other interests.

At times the facade of justification for actions on national defense grounds crumbles completely, as the following case illustrates. Because Lockheed Aircraft Corporation was in perilous financial condition principally due to a number of recent contractor failures for DOD, the firm requested that the federal government guarantee them a $250 million loan. The rationale for this loan was supplied by former Secretary of the Treasury John Connally who testified: "What do we care how they perform? We are guaranteeing them...a $250 million loan...so they can, hopefully minimize their losses, so they can provide employment for 31,000 people throughout the country at a time when we desperately need that type of employment."\(^3\)

The above is an obvious case of how the defense industry (and incidentally the individual firm) is subsidized on economic justifications. In such a manner, defense becomes increasingly bound up with the idea of economic prosperity. And who can deny the political importance of prosperity?

Generally, Congressmen have little incentive to become adamant in their opposition to high defense expenditures. Little reward at election time will await those who choose to become expert critics of the defense budget; no punishment awaits their fellow representatives who did not. Congressmen are very rarely in a position to question effectively military
The Joint Chiefs of Staff are not known for their submissive obedience to a Representative's or Senator's demands and/or threats. On the contrary, a statement by the Joint Chiefs that a "radical" Senator or group of Senators is endangering national security would certainly make even those with "safe" districts fear for their political lives.

If Congressmen are often very reluctant to take a firm stand against the excessive defense budgets, those lobbying for more defense contracts most assuredly are not hesitant in pressing their demands. Defense contractors are constantly engaged in lobbying, ready at all times to provide favors for Congressmen and positions for ex-Pentagon officials. The Pentagon itself, as has been implied, also lobbies extensively. In fact, the Defense Department spends a minimum of $4 million annually on its staff of 339 congressional "liaison specialists," whose task it is to "inform" legislators of the importance of defense and push for new programs. The Pentagon thus maintains more than one lobbyist for every two of 535 members of the House and Senate.

Several almost inherent limiting factors narrow the range of realistic budget examination. The General Accounting Office stated recently that it is "clearly not possible to add significantly to the scope of congressional [budget] consideration within the present timing arrangements." Whereas the Executive takes eight months to analyze and consider the budget, the subcommittees (where most of the substantive review occurs) have only two months to complete their task. Because
Congressmen are often overloaded with work and diverse responsibilities; it is not unknown for a chairman to bring his committee to order knowing only the formal purpose of the hearings. Moreover, his knowledge of the reason for the day's session may be only the result of a note just passed to him by a staff member.9

Congress attempts to overcome impediments to carrying out its assigned tasks in a number of ways. Committee and subcommittee consideration of problems and policies allows for greater flexibility, expertise, and specialization than would otherwise be the case.* Incremental budgeting is a second means of coping with very limited time. That is, the single most influential factor of this year's budget is last year's budget. Changes are made slowly, by increments, rather than drastically with little continuity. Incrementalism allows considerable savings of time and energy in the decision-making process and reflects the continuing nature of most government programs and funding.10 Incrementalism also imposes a conservative bias on the budgetary process and focuses attention on significant departures from the status quo.11 If Congress has not to its satisfaction completed work on the budget before the time that it must go into effect, the House and Senate may pass a temporary Continuing Resolution, under which agencies may continue to spend funds at a level not higher than the previous year's statutory limits.

*Committee and subcommittee scrutiny, because of its monumental importance to the size and composition of the budget, will later be considered in greater detail.
Yet another method of extending real congressional scrutiny is to focus special attention on decisions relating to present and future weapons systems, specifically the areas of RDT&E and Procurement. These areas lie at the core of defense spending, since it is from these investments that most costs will stem. Control of the defense budget can be most efficiently accomplished from this leverage point for several reasons. First is the relative ability to exercise program control before economic dependencies and specific project interest groups develop and influence policy. The effects of program inertia and limited decision-making time also militate towards the desirability of intensified early observation and review. "Sunk costs" (i.e. funds already expended for a program) may make continuation of a poorly planned and failure-riddled project more palatable than cancellation with the certainty of no program benefits. Thus, the full scope of defense expenditures can be most efficiently affected by special scrutiny at the Research and Development and Procurement levels.12

Congress, by its very nature, has institutional biases which make its legislative decisions more prone to be conservative than liberal, more status quo-minded than innovative. The distribution of power, procedural complexity and rigidity, protection of minority rights, and the composition of majorities are all important factors in developing conservative outputs.13
The classic model of "majority rule" may be more misleading than helpful, because majorities, in the usual sense of the word, rarely rule. Instead, diverse interests represented by a large group of members are normally the major political actors. Further, given the large number of points from which policy may be vitally affected, one must also distinguish between various majorities, e.g., committee majorities, subcommittee majorities, floor majorities, etc.\(^{14}\)

For Congress to perform the role of independent analyst and decision-maker on the size and composition of the budget, it must depend on its committee structure. There is no real opportunity for in-depth analysis through floor debate.\(^ {15}\)

Committees are the "work horses" for congressional budget consideration. The men holding the "reins" are the committee chairmen. Committee chairmen have enormous power over the activities of their committees and its determinations. They are in control of a number of resources or "side payments" which are important to other members.\(^ {16}\)

Since all funds which may be spent must be both authorized and appropriated, several committees and subcommittees become of key importance.* The Armed Services Committees of House and Senate (which must authorize funds) have in fairly recent years increased their power in determining the content and size of the defense budget. By imposing more meaningful

*No funds may be spent on projects not specifically or generally authorized. No funds may be spent above project authorization ceilings. Projects may be authorized which are never funded or are funded at levels far below the restrictions.
spending limitations in certain areas and projects, the House Armed Services Committee has sometimes curtailed the discretion of the Appropriations Committees. However, usually respectful of DOD wishes, the House Armed Services Committee has traditionally made only minor changes. For example, in FY 1973 it cut only $625 million from the military budget of approximately $75 billion.

The power and authority of the House Appropriations Committee is impressive, judged statistically by its success in having its decisions made law. In one major study, of 443 separate case histories, "the House accepted Committee recommendations in 87.4%; and in...33.6% of the cases, the House Committee's original recommendations...were the exact ones enacted into law." Congress, acting through its Appropriations and Armed Services Committees, has at times materially altered budget requests for the military.

However, for fiscal years 1960 through 1970, Congressional changes rarely exceeded a 2 percent overall deviation. This figure may be misleading, for modifications in differing budgeting areas may counterbalance one another. Further, it appears that when Congressional confidence and support for the President is high, the House and Senate will make few or only minor changes. More basic dissatisfaction with President or policy may mean a significant change in the budget. For instance, defense in fiscal 1969 and 1970 experienced overall cuts of approximately 6.75 percent and 7.5 percent respectively. Nevertheless, when compared to non-defense appropriations, Congressional changes in the President's defense requests have been small.
Probably the most important single committee in the budgetary process is the House Appropriations Committee. Committee members agree that they must take a "highly critical, aggressive posture toward budget requests, and...should, on principle, reduce them."25 The Treasury is to be protected from excessive or unsubstantiated claims. A third major committee norm is the acceptable and encouraged task of serving the constituency to which the representative owes his election.26

Members of the Appropriations Committee find that their most common role conflict is between the norm of budget cutting (in line with Committee expectations) and selective budget expansion (in line with constituency desires). In theory, this conflict is resolved by a norm of giving top, long-run priority to the budget-cutting task and permitting constituency service as a "short-run exception."27

Minimal partisanship, especially at the subcommittee level, is expected of all members. Even so, Committee hearings are by no means politically neutral. Differences of opinion are allowed; the meaning of the minimal partisanship norm seems to be that dissent should simply not result in publicity which may make compromise difficult or impossible. Partisanship becomes progressively more acceptable at each stage from subcommittee to Committee to floor consideration.28

Norms also apply to the various subcommittees of the House Appropriations Committee. Subcommittee specialization permits more detailed budget examination than a more general
approach. Each subcommittee, under its respective chairman, is allowed to make determinations in isolation from others. Reciprocity and comity among the units favors smooth operations with a minimum of conflict. Deference to subcommittee decisions is an outgrowth of reciprocity and specialization. Subcommittee unity fosters a friendly "give and take" and helps to assure later acceptance of bargains which may be struck. The House rule that a member of the Appropriations Committee may not simultaneously serve on any other standing committee helps prevent role-conflict, fragmentation, or lack of unity.29

The working relationships of Appropriations Committee members is a key variable in budgeting and in legislative politics as well. Internalized group goals, norms, roles, and expectations mean integration of effort towards desired ends. This unification of effort requires conformity. And conformity to acceptable behavior will almost of necessity mean member deference to those with more power, generally imposing a bias toward conservative outputs. Members with the greatest power to bring change exhibit the least disposition to use it for such.30

Threats to Committee integration by new members are significantly reduced by the fact that the newcomer, "who from untutored perceptions, from ignorance of norms, or from dissatisfaction with the apprentice role may not act in accordance with Committee expectations," demands basic or rapid change, does not possess the influence or the resources to impede the normal operation of the body. Socialization of
new members is in part simply training the individual to see, hear, and behave according to group norms and to interpret the world in a fashion similar to the Committee view.

The House Appropriations Committee employs a professional staff of 20-25 personnel to assist the members. Known as "clerks", these individuals owe first allegiance to the Committee chairman and have a working alliance with the respective subcommittee chairman. The clerk is expected to form the basic working relationship with the subcommittee chairman. The clerk is to a lesser extent to assist the ranking minority member; expectations in regard to other subcommittee members are quite limited.

Staff positions are "permanent". The stability of membership allows for the clerk's accumulation of expertise, subject familiarity, and increased influence in the Committee or subcommittee. The clerk's potential for power and persuasion stems from the information and knowledge he comes to possess. Yet it is useful to him only to the extent that he can establish a relation of trust, confidence, and respect with his subcommittee chairman. This relationship is developed by integration to and socialization in Committee norms over a period of time. The clerk is in close contact with every stage of decision-making and may exert very significant influence on determinations.

The Defense Subcommittee employs six clerks. It is primarily their job to screen the approximately $80 billion defense budget. It is inconceivable to this writer that the
few members of Defense Subcommittee and their staff could in any meaningful way review in depth the individual necessities of budgeted sums.

While the GAO regularly submits all reports to Congress and may make special investigations upon its request, GAO review of Pentagon still leaves gaping holes. Information on the extent of GAO oversight is difficult to obtain. The following reply was received from the Deputy Director of Procurement and Systems Acquisition Division of the GAO in response to the question, "What is the size of the GAO subsection which deals with DOD expenditures and defense contract auditing?"

Our Procurement and Systems Acquisition Division expended 263 man-years of productive time in fiscal year 1973...The major portion of this...applied to Defense activities. In addition, we expended considerably resources in the Defense manpower area.35

In FY 1973 the GAO had 5,050 personnel.36 It therefore appears that the GAO devotes a maximum of 5 percent of its efforts to 1/4 of relatively controllably federal expenditures. (Procurement and R&D are responsible for about 1/3 of military spending, which amounts to 80 percent of relatively controllable spending.)

The Senate Appropriations Committee does not scrutinize the entire defense budget. Senators are quite aware of the House Committee's pre-eminence in appropriations and concentrate their limited time reviewing DOD appeals from the House's decision.37 The number of reclamas (as the appeals are known) is limited to a minority of House changes. It is thought that DOD restrains its claims for fear of antagonizing the Senate and almost certainly the House.38
As previously noted, the authorization bodies for military spending, the House and Senate Armed Services Committees, have traditionally made only minor restrictions on spending levels. Strong proponents of the military have dominated committee and committee chairmen positions. Further, many staff members of these committees may have significant pro-military biases, since they often were previously employed by the Pentagon in similar or related work.39 Seymour Melman writes:

...committees on Armed Services and Appropriations have not only included strongly pro-Pentagon members, but have operated with virtually no staff of their own to given them independent investigative and policy formulating ability.40

When House and Senate settle on different funding levels (as is almost invariably the case), a Conference Committee of the two bodies must settle the differences and agree at a figure. This Committee will focus on the areas of dispute and typically “swap” disputed items.41 The predominant form of conflict resolution is logrolling. Rarely is a compromise figure accepted. Even though it may be said that the House dominates Congressional appropriations scrutiny, this does not mean that the House prevails against the Senate in budget figure determinations.42

The factor most conspicuously and tragically absent from Congressional oversight and appropriations for the military is an over-all policy review. While Senators and Representatives might be devoted and skilled in eliminating financial trivia from the defense budget, their principle shortcoming
was a lack of consideration of major policy issues. The conclusions of the Commission on Organization of the Executive Branch of Government, Budgeting and Accounting substantiate and expand this point. The report stated in part:

Congressional committees [make] "spot" eliminations of this or that item that may seem...superfluous, without...[determining] what the actual importance of the item may be in the total picture...

A major error of Congressional budget scrutiny and appropriations for DOD is the failure to recognize that the size and composition of Executive requests for defense are inevitably the result of political influence and pressure. Congress, while having the ability to control defense policy (especially through PDTAE and Procurement fundings), often avoids the responsibility and simply puts its stamp of approval on a slightly altered defense budget (rarely deviating more than a few percent from the requested sums).

Congress, for perhaps self-serving purposes and/or reasons of institutional bias and system rigidity, has denied itself the ability to fully carry out its duty of effective budget scrutiny. This is the result of severely and unwisely limiting staff extensions which might facilitate more realistic Congressional budget consideration.

Congress has failed to develop the analytical capability necessary for the entire Congress fully to understand the annual defense requests and has therefore lacked the confidence to interpose its judgment for the Pentagon's.
Politico-economic incentives induce highly questionably defense spending. Just 10 states receive almost 2/3 of all military contracts. Three of the states, California, Texas, and New York receive about 1/3 of all dollars for military contracts. This may mean several things. First, any general increases in defense spending will probably result in added economic benefits for these areas. Similarly, any general decreases in military spending may create serious economic dislocation for selected industries and in areas heavily dependent on defense expenditures.46 Bearing in mind constituency representation, conservative (military-oriented) spending practices, logrolling, and congressional fear of questioning military judgment, it becomes apparent that an institutional bias toward continually higher military expenditures is powerful and pervasive within Congress.

Those with the greatest incentive for escalating DOD funding are very often those with greatest influence of the levels and distribution of defense benefits. In 1969, half of the members of the House Armed Services Committee were elected from the top ten states in net value of military contracts. More than 2/3 of the members were from the top 20 states. In the Senate more than 1/3 of the Armed Services Committee members were from the top 10 contractor states; almost 2/3 were from the top 20 states.47

A powerful or strategic position in the "right" committee can mean the difference between life and death for a program based in a member's constituency district. For example,