

Comparative Analysis of Decision-Making Processes with Respect to US Armaments Procurement: A Case Study of the F-16

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Abstract

The overall purpose of this thesis is to question the value of the use of models regarding decision-making as it effectively operates within the environment of US armaments procurements. For example, conceptual framework models such as bureaucratic politics, organisational outputs, incrementalism, and others are far too simplistic in their application to this subject - they only tend to distort reality. The thesis argues that the process is far too complex with decisional centres shifting throughout the life of any one given system, thus necessitating a more realistic conceptual approach. Evidence of this is provided throughout the discussion of the organisational processes and the roles of those involved in the procurement process. Moreover, it becomes apparent that those in the highest positions of decision-making (for example, Presidents, Secretaries of Defense, etc.) are at times least likely to be involved in decisions, dependent on the stage of development of the weapon system. Further, other groups (for example, Congress, Joint Chiefs, etc.) commonly perceived as the decisional centres have little, if any involvement during the earlier stages in the life of a weapon system. The possibility of their involvement increases as the system enters what the author refers to as the hardware phase, when monies must be appropriated. In other words, the system becomes politicised and the expertise of those in higher positions becomes salient, because they are chosen for their political and managerial skills - not their expertise in detailed defence matters. Even the weight of their decisions during the hardware phase is questionable due to the fact that lower level "experts", referred to as DoD Components, with longer periods of tenure, are consistently directing upwards their appraisals of new systems requirements, threats, etc., thus setting the parameters for the higher positioned decision maker. Following the description of the organisational processes and the roles of those involved, the discussion turns to the case study of the F-16 to validate these points. The purpose is not to research a case study and then attempt to extrapolate from its axioms of weapons procurement. The exercise is intended to yield credence to the points referred to above.

Keywords: *Comparative analysis, Decision-Making and Processes procurement*

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Background to the Study

Research into weapons procurement methods, policies and problems as an organised academic discipline is relatively new, not only within the field of Political Science and Economics, but also within the US Department of Defense, the Executive Branch, Congress and other defence related agencies. Where billions of dollars^{2]} are involved, research into defence procurement has generated over-simplified explanations such as military industrial complex theories, contractors are the cause of cost overruns, or that it is a system on the verge of disorder.

For example, consider the three following interpretations:

A normal thirst for more managing power within the largest management (Pentagon) in the United States gives the new state management an unprecedented ability and opportunity for building a military-industry empire at home and for using this as an instrument for building an empire abroad. This is the new imperialism. The magnitude of the decision-power of the Pentagon management has reached that of a State. After all, the fiscal 1970 budget plan of the Department of Defense - \$83 billion - exceeds the gross national product of entire nations: in billions of dollars for 1966 - Belgium \$18.1; Italy \$61.4; Sweden \$21.2. The state-management has become a para-state, a state within a state. Large defense contractors can let costs come where they will and count on getting relief from the DoD through charges and claims, relaxations of procurement regulations and laws. or other escape mechanisms. They will make their money whether their product is good or bad; whether their price is fair or higher than it should be; whether delivery is on time or late." Let's face it - the fact is that there has been bad management of many defense programs in the past. We spent billions of the taxpayers' dollars; sometimes we spent it badly. Part of this is due to basic uncertainties in the defense business. However, most of it has been due to bad management, both in the Department of Defense and in the defense industry. Frankly, gentlemen, in defense procurement, we have a real mess on our hands.

These and many other criticisms, or exposes of management, regarding the decisions of weapons procurement (even though two quotations - the first from the Defense monitor and the other from Secretary of Defense Packard are from within the defence establishment) have blurred the decisional processes of weapons procurement. All too frequently, conventional wisdom and the literature relating to weapons procurement have related certain viewpoints to a given weapons system, and proceeded to assert that all weapons procurement decisions were the resultant of such activities which subscribe to or fit within the scope of that author's persuasion. For example, Seymour Melman, mentioned above, viewed decisions in military hardware as promoting benefits to the defence industry (para state), with the motive being profit. Anthony Sampson argued that weapons procurement processes are "about the companies who make the arms, and the attitudes and methods of the men who buy. them and sell them. The implication throughout being that it is a business in which a "fellow has to wish for trouble so as to make a living". George Thayer, set out to detail the international sales of arms. Throughout his work he made reference to "a distinct group of arms dealers", also referred to as "munitions manipulators". Bloomfield and Leiss examined the lack of arms control, and the influence of the military industrial complex in limited wars. The authors

reviewed profits et al, but neglected in their work to provide a basic definition of war. 101 The point here being that these authors, and others"] like them, hold a certain outlook that neglects the consideration of essential variables such as wars. national security, Congressional Oversight Powers, foreign sales and so forth. In other words, a conception or belief is formed on the part of the author by his interpretation of the facts, which he sees fit to utilise, accounts for only a part of the process. The trap, or blurring effect, is that the observer, if convinced, tends to relate a few facts to the overall process while still failing to fully appreciate the reality or the complexity of the situation. Furthermore, it is not only opinions which cloud the decision-making processes.

Planning Us Defence Policy

Conventional wisdom dictates that comprehensive defence planning and decision making is the province of the Executive Branch; Presidents are perceived as the pivot. They either make the most important planning decisions or retain responsibility when they delegate authority for the subordinates to make them. In the idealised case, "comprehensive national security policy, promulgated by the President, forms the foundation for defence planning in conformation with proven procedures. He hand-picks so-called qualified Cabinet officials, who participate in that process - the Senate probes and confirms their competence, "11 together with appointed senior subordinates, both military and civilian. Positioned beneath them, the next in order are the "career" military officers. They remain outside the sphere of Congressional approval or civilian scrutiny, though they are dependent upon Congressional funding and civilian groups (contractors, lobbyists, et al). They seemingly participate in the implementation of defence policy guidance which comes from their superiors. Therefore, in the ideal case, the military at all levels is held in check by a civilian "checks and balances" and those at the top, the appointed civilians, determine overall defence policy. The intention of this Chapter is to describe defence planning and defence decision making as it effectively operates, compared to the simplistic explanation offered above. Before doing so, it is necessary to mention that in attempting to assess the decision making within an organisational political system such as the defence establishment, two tasks are required

- 1) The principal organisational actors need to be identified on a meaningful basis
- 2) then, the power of these various actors needs to be assessed.

Pfeffer states further that in identifying the relevant organisational units "it is wise to start with the labels used in and provided by the organisation. However, extreme caution must be exercised since although separate units, National Security Council (NSC), Department of Defense (DoD), et al, will be identified, people within these organisations also have multiple interests which are cross-cut in a variety of ways. For example, a given individual may move from the Department of State to the Department of Defense, later to the Staff of the National Security Council, followed by two years at the Senate Armed Services Committee and presently works in the Office of Management and Budget. Other variables for consideration are educational background and disciplinary background (law, business, engineering) and so forth. The list is infinite. Primarily, the discussion in this Chapter and the next shall clarify the established units of defence decision making and, second, what power and influence by law, tradition or whatever means, shall be exercised by these units in promulgating decisions.

Commencing with the top of the chain of command - and state outright - Presidents are the Commanders-in Chief of the US Armed Forces, but they are not experts.: in the field of national defence. Dwight D. Eisenhower was the only defence specialist to occupy the White House in this century. Strategic expertise will almost certainly continue to be the exception, rather than the rule, for US Presidents. They come from all walks of life and once installed have little time to digest all facets of defence planning. The XXII Amendment to the US Constitution, proclaimed on 1 March 1951, permits each President no more than two four-year terms, plus "two years of a term to which some other person was elected". In the period under review, excepting Reagan, only two Presidents since 1960 have endured even half that long (Johnson - 5 years, 2 months; Nixon -4 years, 7 months). Moreover, during their time in office, the Presidents must address themselves to many other demanding issues that compete with their attention for the national defence.

The National Security Council

The foremost defence related organisation within the Executive Branch is the National Security Council. It is the forum within which the President operates in either promulgating or making decisions. The National Security Council, supervised by the National Security Adviser^{7]} and his "NSC staff of fewer than fifty professionals are occupied with virtually every serious national security and international economic problem confronting the government". The Council includes the President, the Vice-President, the Secretaries of State and Defense, and the heads of the Central Intelligence Agency and the Joint Chiefs of Staff. The President chairs the National Security Council (NSC), whose members ideally "assess and appraise (US) objectives, commitments and risks. in relation to our actual and potential military power", then advise him, "with respect to the integration of domestic, foreign and military policies. The Council's apparatus and procedures for application, however, have been an institutional "roller coaster" since the NSC's inception in 1947. Rapid rises to peaks and plunges of influence within the NSC occur repeatedly, whilst successive Presidents reshape Council purpose and structure to suit their temperaments. Every President, since Eisenhower, has installed a National Security Adviser. Associated functions have never been subject to statutory restrictions, since their post is not prescribed by law. For example, uniformed officers on active duty are eligible but none have been selected.

The Fiscal Cycle and the Decisional Processes

The term "weapons acquisition" has been used throughout the text hitherto without any explanation as to what it is. "The weapons acquisition process of any country is a heterogeneous activity that varies considerably over many dimensions. The specific military service, the class of equipment, and the vagaries of time are but a few of the dimensions over which enormous disparities are observed. In order to reduce to a manageable size, the problem associated with a description and analysis of weapons acquisition, some simplifications are necessary. " 11 Primary objectives can be acquired if the proper decision making and action is pursued by the group, individual or organisation seeking the objectives. Thus, it is important to appreciate the acquisition process from the perspective of the decision maker, who as an insider is directly influencing and checking the acquisition process hoping to achieve their primary objective as the end resultant. The process from the decision maker

viewpoint breaks down into four phases along organisational structure lines:

1. Concept Exploration (Conception)
2. Demonstration and Validation (Research and Development)
3. Full-Scale Development
4. Production and Deployment

The Life Cycle and the Decisional Processes

Life Cycle The development of major weapon systems is a primary function of the Department of Defense. The development process is as highly structured and complex as that witnessed in the Fiscal Cycle. The combined process involves close interaction between the needs of the users, the military, and the ability of the developer, the weapons contractors, to fulfil them. A substantial portion of personnel of the Office of the Secretary of Defense (OSD) and the military services are involved in the process, in which the costs of weapons development consume a large portion of the military budget each year, and involves large segments of industry which are engaged in producing them.

The Conception of the F-16

The Non-Hardware Stage of the Lightweight Fighter F-X Concept

The F-16 multinational programme is a multimillion-dollar co-operative undertaking between the United States and four NATO countries, Belgium, Denmark, the Netherlands and Norway with the prime contractor being General Dynamics. The General Dynamics YF-16 (F-16) is a fighter plane which is a compact, single-seat, single-engine aircraft designed to achieve air superiority over other aircraft in air-to-air combat, and to carry over 15,000 pounds of missiles and bombs on air-to-ground missions. The F-16 is slightly over 47 feet long, with a wingspan of 31.3 feet, including two missiles at the wing tips, and an overall height at the tail of 16.3 feet. The aircraft weight, with full internal fuel, is 21,000 pounds, with maximum take-off weight of 31,000 pounds. Maximum external payload is 15,200 pounds. It is powered by the fully developed Pratt and Whitney F 100-PW-100 turbofan engine (the same 25,000-pound thrust engine that powers the US Air Force F-15 Eagle).

The F-16 "multirole fighter" emerged from the Light Weight Fighter programme, which was initiated by the US Air Force during the early 1970s in response to rising costs. The acquisition cost of tactical aircraft has risen steadily since World War II.² This was partially due to the development of increasingly sophisticated avionics and weapons technology. Also, although inflation accounted for some of the increase, "most of it is attributable to the greater size and technical complexity of modern planes, as well as the declining rates of production that have accompanied the rise in unit costs". The General Dynamics F-16 (also referred to as the Fighting Falcon) was one of the stars of the 1977 Paris Air Show. Aside from it being one of the "hottest", and probably at the time, the most controversial fighter in the Western world, many observers were intrigued not only by the aircraft itself, but by some who were photographing it. One person in particular, dressed in a suit that was distinctly out of date, and equipped with a Russian camera fitted with a large telephoto lens, was photographing the aircraft, not from close up, but from a range of several hundred yards. The resulting photographs were no doubt examined in an East European Defence Ministry a few days later.

However, the whole exercise might have been much easier had the photographer simply approached the aircraft, like everyone else, and accepted photographs and a booklet showing basic design and potential capabilities from two General Dynamics men on duty beside the aircraft. 41 This story was repeated amongst interested observers, who, although they found humour in it, also realised the seriousness with which the Warsaw Pact was taking this new warplane - even if their intelligence gathering method was unsophisticated. Although the F-16 made its debut in 1977, it had flown by "accident" four years earlier on December 13, 1973, at Fort Worth, in what was supposed to be a high-speed taxi trial. To the surprise of General Dynamics pilot, Phil Oestricher, the aircraft oscillated and, realising that the aircraft's horizontal tailplane had hit the runway, he knew that the best way to resolve this difficulty was to become airborne - a brief six-minute flight followed and the F-16 was brought & in to a smooth landing. 4 The debut of the F-16 and its first flight were turning points for the F-16 programme. However, how the Air Force and/or the Defence establishment turned concepts and needs into the hardware of the F-16 is the major emphasis of this Chapter. This matter can be brought to light by first, turning attention to the events and earlier contractor actions before the conception of the F-16. The case study of the F-16 can be better appreciated if firstly there is a discussion of the procedures, the activities of various DoD Components, and particular individuals credited with the F-16 programme.

Conclusion

From the foregoing discussion, it should be apparent that no single conceptual approach or model suffices in the study of decision-making found within the environment of US armaments Procurement. As witnessed, there are too many different variables and influences operative from within the organisational decisional centres as well as upon them. Moreover, the importance of these respective decisional centres is in a state of flux, which permit decisions to be the resultant of an individual or group advocating the decision not based or dependent upon his/their position of authority. Also, these decisions can be affected by variations in organisational, bureaucratic, or personal factors, and by structural influences, (legal or extra-legal,) and by manufacturers' associations, -program managers in DoD, and so forth, all of which are interacting at different stages of the development of a weapon system. Moreover, the entire process becomes more complex when accounting for the shifting between various decisional centres. The determination of the influence of decisions from those in authority is further complicated following the review of organisational/ structural roles. Those at the top tend to be managers, chosen for their managerial and political skills. Obviously, given the size of the organisations within the defence establishment, it is virtually impossible for those in authority to be cognisant of, and be able to comprehend, every weapon system at each and every stage. It is not the purpose of this exercise to prove that point. The focus is that the decisional centres within the defence establishment shift and the actual shifting which occurs can act as an influencing factor in itself. This is further exacerbated by the structure of the organisational processes which promote this notion, for example, Fiscal Cycle Overlap, Five Year Defense Plans, the diversification of Congressional Committees (all having some form of jurisdiction), Selected Acquisition Reports, DoD Components, assistance to the Joint Chiefs of Staff, and so forth. Given this, it is seriously misleading to apply one conceptual model to the whole of the decision-making process.

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