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(S) NATIONAL RECONNAISSANCE OFFICE
WASHINGTON, D.C.

OFFICE OF THE DIRECTOR

7 September 1976

MEMORANDUM FOR MR. ELLSWORTH

SUBJECT: Streamlined Management and the NRO

Since its inception, the NRO has functioned within a framework of streamlined management. Streamlined management was instituted at the outset principally to maximize program success by keeping the numbers of people involved in the review and decision apparatus as low as possible. The following philosophy was employed for the NRO's first eleven years.

- Major program decisions were made directly by senior managers, in the forum of the NRP Executive Committee. As originally conceived, the two principal members were the Deputy Secretary of Defense (Chairman) and the Director, Central Intelligence. Program and budget issues were staffed to the ExCom directly by the Director, NRO. Resource decisions were clearly and unambiguously fed back to the NRO.

- Following the allocation of resources, the Director, NRO exercised line management authority with direct control over his managers in the field.

- Managers of the Program Offices were responsible for the total satellite life cycle from system concept through operation.

- A small staff, free from any significant involvement with other elements of the DOD, provided support for the Director, NRO.

- Strict internal review was conducted by a select audit organization within DCAA.

- The NRO was exempted from all other Executive Branch oversight or review except that provided by the ExCom.

WORKING PAPERS

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- Congressional interface was a minimum. Normally discussions were limited to the Chairman, ranking minority member, and a staff member, for each of the four committees of concern.

- The incremental funding concept was applied to NRO programs.

- Funding flexibility was permitted within the overall approved program.

- Interagency participation existed, with both DOD and CIA elements.

- Personnel were carefully selected, and retained under a stabilized tour program.

- Operation in a closed security environment further protected the NRO from involvement in the bureaucratic DOD study and decision process (and prohibited any other organization from conducting satellite reconnaissance studies, development, or operation).

In the last four years there have been significant changes, which have diluted the streamlined management concept and resulted in growing normalization:

- The creation of the ASD(I) office and more recently the Director, Defense Intelligence, which has influenced the NRO and NRP both by directives affecting resources and by requiring support to study activities.

- The formation of the IC Staff, which also provides direction and requires significant support for study efforts.

- Significant increase in the interface with the Congress, with much greater information requirements in response to staff questioning.

- Congress has made program decisions this year which have normally been made by the ExCom.

- With the abolishment of the ExCom and assumption of this function by the CFI, the IC Staff now provides certain staff functions duplicative of those formerly performed for the Director, NRO and the ExCom.

- OMB involvement has increased.

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The impact of the normalization process is:

- Additional layers of review, which requires significant NRO Staff support.
- A proliferation of study activity which requires continuing participation from the NRO Staff and Program Offices, both of which are not manned for this requirement.
- A consequent dilution of the effort which can be devoted to satellite development and operational management.
- Uncertainties in the decision process, and the introduction of organizations not in the direct line of management.
- A potential for increased costs and longer schedules for deployment of reconnaissance satellites and technical compromise in their capabilities.

The streamlined management structure for the NRO has contributed greatly to successful mission accomplishment, while effecting considerable savings in people and costs compared to more normalized DOD management methods. Recognizing that complete reversal of recent changes and return to old ways of doing business are not totally possible, it is believed that some steps are required to establish a new management framework and prevent further unproductive erosion. A plan for doing this would include the following elements:

- Obtain an Executive Branch decree that the NRO will be operated as a special, fenced, and streamlined entity.
- Establish a series of agreements with involved Executive Branch organizations, which both define and limit the extent of review and direction or participation. These agreements would be directed and approved by the Secretary of Defense. Specific organizations would include at least the ASD(I)/DDI, IC Staff, OMB, DDR&E, DMA, ARPA, and DCAA.
- Direct that outside staffs concentrate on the validity of requirements, priorities, and broad budgetary trade-offs, rather than hardware solutions for the NRP.
- Direct that outside staffs evaluate the NRP output against requirements and priorities, rather than the intra-program issues pertaining to hardware trade-offs for the NRP.

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- Limit outside staff involvement to bottom-line issues.
- Direct that the Director, NRO have the sole responsibility for staffing NRP issues to the CFI.
- Approach the involved committees of the Congress seeking agreement to limit involvement in the NRP decision process. Further, to attempt to limit the number of formal submittals and responses required of the NRO to only the most essential because of the workload involved.

Charles W. Cook

Charles W. Cook
Acting Director

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STREAMLINED MANAGEMENT - CONTROL WITHIN THE NRO

The concept of "streamlined management" provides the essential management and operation within the NRO to assume timely and effective management, command and control of NRP resources.

"Streamlined management" consists of the following methods:

a. The DNRO presently has resource allocation authority within a fenced budget. This provides him budgetary flexibility.

b. The DNRO has direct access to his line organization elements. This short vertical up and down chain makes his programs highly responsive and makes him directly accessible to his program managers.

c. The DNRO controls end-to-end system contracting and procedures which, therefore, makes it responsive.

d. The NRP enjoys strict internal review by select audit organizations and personnel. This limits indiscriminate reviews by any number of agencies that might feel a necessity to intervene in NRP matters.

e. The special security required for collection system protection provides a management spinoff by allowing conduct of NRP system acquisition, conduct and operations in, essentially, a sanctuary environment. This environment prevents unwarranted external intrusion into NRP activities.

f. As a national organization, the NRO is integrated and interagency manned by highly qualified personnel motivated

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by the NRP mission to provide the necessary objectivity to their decision makers. Historically, the program has been marked by a high stability in personnel manning, which has been beneficial to continuity and effectiveness. This stability accrues from the high program priority.

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OFFICE OF THE SECRETARY OF DEFENSE
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1 October 1976

MEMORANDUM FOR MR. ELLSWORTH

Beneath is a revision to the streamlined management paper. Below are some of my thoughts of a streamlined management concept in general in a more or less abstract fashion.

Streamlined management should embody the following principles:

- Non-competitive and unambiguous mission - single responsibility
- Overall program effort fenced by means of strong security policy, strong management protection - reports to the top management directly
- Program and budget issues staffed directly to the top management for decisions without intermediate levels of review
- Resources, once decided upon, not competitive with other resources - management of resources within the program is permitted to be flexible
- Program managers report directly to the Director - decision authority clearly defined and vested at the lowest possible level
- Staffing (manning) held to a bare minimum of people with high responsibility
- Reporting held to a minimum consistent with proper accountability requirements - checks and balances for oversight clearly defined and delimited
- Outside support requirements held to minimum - required audit, studies and furnishing of information held to the level commensurate with minimum manning and top management approval.
- Most important, the mission and modus-operandi must be psychologically perceived as vital and important and worthy of special treatment, both internally and externally to the organization - further, the bureaucracy must be willing to keep its hands off - but with the confidence that checks and balances and safeguards are present.

Attachment
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[REDACTED]
LTJCOL., USAF
MILITARY ASSISTANT

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SUBJECT: Streamlined Management and the Organization

Since its inception, the organization has functioned within a framework of streamlined management. Streamlined management was instituted at the outset principally to maximize program success by keeping the numbers of people involved in the review and decision apparatus as low as possible. The following philosophy was employed for the first eleven years.

- Major program decisions were made directly by senior managers, in the forum of an Executive Committee. As originally conceived, the two principal members were the Deputy Secretary of Defense (Chairman) and the Director, Central Intelligence. Program and budget issues were staffed to the ExCom directly by the organization Director. Resource decisions were clearly and unambiguously fed back to the organization.

- Following the allocation of resources, the Director exercised line management authority with direct control over his managers in the field.

- Managers of the subordinate offices were responsible for the total life cycle from system concept through operation.

- A small staff, free from any significant involvement with other elements of the DOD, provided support for the organization.

- Strict internal review was conducted by a select audit organization within DCAA.

- The organization was exempted from all other Executive Branch oversight or review except that provided by the ExCom.

- Congressional interface was a minimum. Normally discussions were limited to the Chairman, ranking minority member, and a staff member, for each of the four committees of concern.

- The incremental funding concept was applied to the individual programs.

- Funding flexibility was permitted within the overall approved program.

- Interagency participation existed.

- Personnel were carefully selected, and retained under a stabilized tour program.

- Operation in a closed security environment further protected the organization from involvement in the bureaucratic DOD study and decision process (and prohibited any other organization from conducting system studies, development, or operation).

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2.

In the last four years there have been significant changes, which have diluted the streamlined management concept and resulted in growing normalization:

- The creation of the ASD(I) office and more recently the Director, Defense Intelligence, which has influenced the organization and program both by directives affecting resources and by requiring support to study activities.

- The formation of the IC Staff, which also provides direction and requires significant support for study efforts.

- Significant increase in the interface with the Congress, with much greater information requirements in response to staff questioning.

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→ - OMB involvement has increased.

The impact of the normalization process is:

- Additional layers of review, which requires significant internal Staff support.

- A proliferation of study activity which requires continuing participation from the Staff and subordinate offices, both of which are not manned for this requirement.

- A consequent dilution of the effort which can be devoted to system development and operational management.

- Uncertainties in the decision process, and the introduction of organizations not in the direct line of management.

- A potential for increased costs and longer schedules for deployment of systems and technical compromise in their capabilities.

The streamlined management structure for the organization has contributed greatly to successful mission accomplishment, while effecting considerable savings in people and costs compared to more normalized DOD management methods. Recognizing that complete reversal of recent changes and return to old ways of doing business are not totally possible, it is believed that some steps are required to establish a new management framework and prevent further unproductive erosion. A plan for doing this would include the following elements:

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3.

(1) - Obtain an Executive Branch decree that the organization will be operated as a special, fenced, and streamlined entity.

(2) - Establish a series of agreements with involved Executive Branch organizations, which both define and limit the extent of review and direction or participation. These agreements would be directed and approved by the Secretary of Defense. Specific organizations would include at least the ASD(I)/DDI, IC Staff, OMB, DDR&E, DMA, ARPA, and DCAA.

✓ - Direct that outside staffs concentrate on the validity of requirements, priorities, and broad budgetary trade-offs, rather than hardware solutions.

✓ - Direct that outside staffs evaluate the organizational output against requirements and priorities, rather than the intra-program issues pertaining to hardware trade-offs.

✓ Limit outside staff involvement to bottom-line issues.

→ - Direct that the organization director have the sole responsibility for staffing issues to the CFI.

(3) - Approach the involved committees of the Congress seeking agreement to define a limit of involvement in the decision process. Further, attempt to define a limit to the number of formal submittals and responses required of the organization to only the most essential.

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OFFICE OF THE DEPUTY SECRETARY OF DEFENSE

5 Oct 76

MEMO FOR

PLEASE DEVELOP, W/ DNRO,
A PLAN TO GET DOD, DCI, WHITE HOUSE,
AND CONGRESSIONAL APPROVAL OF NEW
"ARRANGEMENT" ALONG THESE LINES.


Robert Ellsworth

Notes on our memo and Mr. Ellsworth's

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STREAMLINED MANAGEMENT

The concept of "streamlined management" would provide the essential management and operation to assume timely and effective management, command and control of resources.

"Streamlined management" would consist of the following methods:

a. Resource allocation authority within a fenced budget. This would provide budgetary flexibility.

b. Direct access to line organization elements. This short vertical up and down chain would make a program highly responsive and directly accessible to managers.

c. Control end-to-end system contracting and procedures which would make it responsive.

d. Would enjoy strict internal review by select audit organizations and personnel. This limits indiscriminate reviews by any number of agencies that might feel a necessity to intervene.

e. Be integrated and interagency manned by highly qualified personnel motivated by the program mission to provide necessary objectivity to their decision makers. Marked by a high stability in personnel manning, which would be beneficial to continuity and effectiveness.

COMMENTS

1. The section on Historical Perspectives of Acquisition Managements -

You may want to expand this section if appropriate. The following were highlights not mentioned in your discussion.

1950s - Dominance of the cost plus a fixed fee contracts. Management competition de-emphasized due to the urgency surrounding the ballistic missile programs.

1960s - Contract definition concept to determine which contractor would receive the development contract. Emergence of incentive contracting. Packard "fly/try before buy" concepts. Prototyping re-emerges. DOD Directive 5000.1

1970s - A good source for amplifying this area is the book Arming America by J. Ronald Fox.

2. (Tailored) Streamlined Acquisition Management Approaches

In this section you mention the U-2, SR-71 and Atlas D upper stage propulsion vehicle. There are two other examples which might be covered, the Polaris and the F-15. The first was highly successful. Streamlining the latter was not very successful. Gen Bellis attempted to adapt streamlined management for the F-15 and an understanding and review of his difficulties might be edifying.

I think stressing the classified programs such as the SR-71/U-2 may prejudice your case.

3. Characteristics of the (Tailored) Management Approach

You may want to consider changing this section to a discussion of the criteria for successful (tailored) streamlined management. The following is by no means an all inclusive list:

- a. **Unassailable Priority** - A widely recognized priority of the requirement. Although it is realized that it is unlikely in this day and age to receive unequivocal support throughout the Executive and Legislative branches, nevertheless a program must have an accepted priority and a constituency at the highest levels of OSD, OMB and Congress.
- b. **Need Date** - To counterbalance the ever-present threat of program deferral or fund reprogramming, there should be an accepted date by which this capability must be operational.
- c. **Scope** - As a general precept, streamlined management is most successful when employed on a program of limited scope. The

larger and more complex, in terms of technologies, contractual base and legislative/constituency interests, the less likely streamlined management can be successfully employed.

- d. **Simplified Requirements Mechanism** - There is an inexorable tendency to change the system requirements and, thus the design, during the early phases of the system acquisition process. The more simplified the requirements mechanism (the number and diversity of the potential players) the better the chance for success.

4. Proposed Alternatives

The section appears to be redundant as you have already discussed characteristics. You may want to consider combining this discussion with that which appears on pg. 5. Listed below are additional or revised characteristics for your consideration. Obviously, some may not be appropriate.

ORGANIZATIONAL CONSIDERATIONS

- a. **Small and cohesive organization** - minimum number of people with the maximum qualifications.
- b. **Rank structure** - Proportionately more higher grade people than lower.
- c. **Long tenure** - Long duration assignments for both officers and civilians.
- d. **Direct Chain of Command** - Direct line from the engineer to the SPO to the decision maker. A direct and vertical chain of command.
- e. **Collocation of buying and engineering personnel** - contributes to good understanding of requirements by buying and engineering personnel.

5. Procurement and Financial Authorities -

The SPO controls direct end-to-end system contracting. The authority to apply funds on an incremental basis is an important tenet which allows sufficient funding latitude to permit ready use of the most practical means of contracting. This funding flexibility also allows programs to avoid the constraints of piecemeal procurement.

6. Increased Contractor Involvement

In general, streamlined management activities are characterized by extensive contractor involvement in all areas of the cycle. For example, the contractor has much deeper involvement in configuration management and quality control. Accordingly, the need for the government to perform contract administration is significantly reduced. Contractors may take responsibility for development, manufacturing

and operational success with appropriate oversight by engineering/contracting officers.

7. USE OF CONTRACTOR INCENTIVES

Contractors are granted large incentive fees for operational performance. Thus, there is significant motivation on the part of the SPO/contractor team to ensure mission success. This also tends to minimize, to the extent possible, an adversary relationship between government and contractor people.

8. OVERSIGHT

Oversight should be kept to a minimum, with special audit activities performing the function. Efficiency suffers when programs are subjected to the normal inspection/oversight process.

Such are my specific comments. In general I think it is essential that your paper establish a framework of decision for the Air Force hierarchy. That is why I emphasize the need to have a criteria baseline (what constitutes the factors which must exist before tailored management techniques can be used). Once those are developed, you can play your candidates against this criteria. It is realized that the foregoing list of characteristics is the best of all worlds, the AF/RD challenge is to selectively adapt whatever characteristics are appropriate.

Should your successor or Gen Lowe want additional information on the general subject of streamlined management, may we suggest a review of the Congressional review (Joint Armed Services Committee) or the Weapon Systems Acquisition Process which occurred in December 1971. Files on these proceedings are available in SAFLL. [REDACTED] and Admiral Rickover were featured witnesses.

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON, D.C



20 MAR 1979

REPLY TO
ATTN OF RD

SUBJECT: Tailored Acquisition Strategies

TO: SAF/SS

1. The Deputy Chief of Staff/Research, Development and Acquisition has directed Major General Dewey K. K. Lowe, Director of Contracting and Acquisition Policy, and [REDACTED] Assistant for Special Projects, to perform a review of the acquisition process and determine appropriate strategies for selected programs that will allow the Air Force to acquire urgently needed capabilities in compressed acquisition cycles.

2. As a part of the basic research in this project, General Lowe and [REDACTED] are reviewing the application of specialized management techniques that have been successfully applied to various programs in acquiring capabilities in much shorter times than the current twelve year cycle.

3. Your cooperation and assistance in examining selected programs to assess the utility of alternative management approaches is appreciated.

[REDACTED]
Assistant for Special Projects
DCS/Research, Development and
Acquisition

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~~(S)~~ NATIONAL RECONNAISSANCE OFFICE
WASHINGTON, D.C.

THE NRO STAFF

7 June 1979

MEMORANDUM FOR MR. HILL

SUBJECT: Tailored Acquisition Strategies

As you may recall, AF/RD has been studying the feasibility of adapting certain streamlined management tenets to selected Air Force programs. The ultimate aim is to compress the 12-year acquisition cycle to a more reasonable duration. To assist General Lowe in understanding streamlined management in practice, we briefed him and he visited SP and Buckley. Based upon your suggestion, he examined the differences in management style between DSP and [REDACTED]

The attached draft which has been provided to us for review and comment is General Lowe's summary report to General Stafford. [REDACTED] and I will review and I have sent a copy to [REDACTED] as well.

The paper is fairly shallow in some areas. We plan to suggest a reorientation of his discussion of the characteristics of streamlined management. For example, I think the paper may be more useful to the Air Force hierarchy if a criteria matrix were established which would describe what factors/situations permit successful employment of streamlined management techniques, i.e., unassailable priority, a need date, a well defined requirements mechanism. Additionally, there are several more examples of streamlined management schemes than those mentioned (i.e., Polaris, F-16).


[REDACTED] General Lowe's action officer on the project, is interested in the feasibility of developing a BYEMAN annex comparing DSP and [REDACTED]. Although it undoubtedly would strengthen the document, I think General Lowe envisions us writing the annex as Brandt is being transferred in the next two weeks. As we are not the most objective office on this subject and as we could be criticized for throwing stones at the "white" Air Force, I recommend we resist an active involvement in the annex if one were to be proposed.

Please let me know what you think.

Thomas S. Moorman Jr.

THOMAS S. MOORMAN, JR.
Lt Col, USAF

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TAILORED ACQUISITION STRATEGIES

INTRODUCTION

The basic objective of acquisition management is to deliver modern, usable equipment to the force at the time needed. The total time to accomplish this objective is increasing. The acquisition cycle for major programs is now taking 12 or more years with noted increases in time from program initiation through DSARC II. As a result of the lengthening cycle, costs are escalating and systems are becoming technologically obsolete before they are deployed.

In the race to catch technology and reduce the rate of increasing costs, program funding is deferred and production schedules are stretched. Thus requirements are shifted to future years where the same funding problems will again be faced with compounded effects. Hence, a funding or budget bow wave is produced which effects the services' ability to program and budget adequate resources to execute programs in an efficient and effective way.

The single most important challenge in acquisition today is to shorten the acquisition cycle through tailored management strategies. The cycle must be compressed not only to afford the systems needed but to prevent unreasonable technology decay.

Historical Perspective of Acquisition Management

The 1950s

The systems management approach to Air Force acquisitions was developed and institutionalized in the 1950s. This innova-

tive. technique facilitated the urgent and successful development of the U.S. ballistic missile program and was spurred on by the Russian Sputnik launchings late in that decade. Concurrent development and production used regularly in this era significantly reduced the time required to field the new missile systems. However, programs too often were marked with high risk, poor definition and low visibility which resulted in cost overruns of 200 to 300 percent.

COST PLUS
FIXED
FEE
CONTRACTS

MANAGEMENT
UNPETITION
DEEMPHASIZED

The 1960s

A number of concerns about the process became evident in the early 1960s. Final costs were still exceeding cost estimates by factors of 1 to 2 and, in addition, more systems were entering development than could reasonably be procured with available production funds. In some cases duplicative systems were developed, while unglamorous but needed equipment was not produced at all. The general lack of a prioritized allocation system was evident.

The resulting reaction to this environment was the implementation of changes to the process that focused on more detailed initial planning, elaborate cost estimates, and greater centralization of responsibility for development and acquisition decision-making. This was the birth of the sequential production decision process by the Office of the Secretary of Defense (OSD). A summary critique of the 1960 changes found an emerging realization that the acquisition cycle length was increasing.

↑
PACKARD
THE FLY SECURE
BUY
CONCEPT

PROTOTYPING
RE-EMERGES
DOD DIRECTOR
5000.1

The 1970s

In the late 60s and early 70s an attempt was made to return to a more decentralized management system. The services were allowed more freedom to improve on their program management with OSD approval. Key acquisition management personnel were given more responsibility and recognition (e.g., program directors). However, this supposed decentralization was coupled with the institutionalization of a sequential step-by-step acquisition system. A three step development cycle was implemented (i.e., conceptual development, full scale development and production). Other failsafe "fly before buy" assurances were also emphasized.

The Office of Management and Budget Circular A-109 on major systems acquisitions also influenced the late 70s. This policy formalized the "Front End" of the acquisition cycle by adding a specific "Milestone Zero" decision for initiation of a program based on a mission oriented statement of need.

The result of acquisition management changes in this decade (e.g., formalization of DPC/DSARC system, prototypes, etc.) lead to reduced cost growth (generally less than 100 percent) but also to a marked increase in the length of the acquisition cycle, especially in the time from program initiation through DSARC II.

Characteristics of Today's Acquisition Management Environment

Today's system acquisition management process has a high degree of technical involvement by the OSD staff, principally the Office of the Under Secretary of Defense Research and

Engineering (OUSDR&E), but also the Office of the Assistant Secretary of Defense Program Analysis and Evaluation (PA&E). This involvement manifests itself throughout the life cycle of programs with heavy influence on the scope and statement of need as well as on the technologies and risk assessments of the approaches being pursued. Although decentralization has been a common recommendation in system acquisition studies the overall trend has been more, not less, concentration of authority and control at the top.

The decision processes, as a result of centralization, are highly kinetic with almost frantic activity in the various organizational hierarchies all the way from the program office to OSD. Great quantities of paper, considerable travel by significant numbers of people, and participation by large staff contingents are the norm. The milestone decision process requires a program manager to "fight his way to the top" to gain approval to proceed at each new phase of his program. The heavy involvement at the higher levels requires that the previous phase be essentially complete before enough information is available for a decision on the following phase. The common result is a go-stop-go profile of the funding and activity in the program which creates serious gaps between program phases and disrupts the continuity of the contractor's activities and work force.

A parallel, yet somewhat related problem is the seemingly growing dominance of the resource allocation process over the systems acquisition process. Milestone decisions to proceed

with a system acquisition have not been explicitly linked to allocated resources. There is a growing problem in disconnects manifested by the PPBS not providing the necessary funds to implement even recent milestone decisions. This further aggravates the instability in program objectives and tends to negate any gains in continuity resulting from the sequential milestone approach.

A summary view of current systems acquisition management procedures finds a highly structured and formalized process which is significantly centralized at the higher organizational levels. Its procedural focus tends to be on activity within the government above the program manager level rather than on the contractual relationships with industry. Complex in its own right, the acquisition process is complicated even more by the bureaucratic resource allocation process.

(Tailored) Streamlined Acquisition Management Approaches

There have been streamlined system acquisitions that were conducted differently from the previous characterization of the formalized system. These programs have been few, mostly classified and generally successful. Two such examples are the U-2 and SR-71 reconnaissance airplanes built by Lockheed in the Kelly Johnson "Skunk Works". Both shared high national urgency with strict security limitations on access to the program. Both programs were considered successful with high performance/technology systems being fielded in a relatively short time at

close to initial cost estimates. These systems are still operating successfully in original or follow-on versions.

A third example, a space system also built by Lockheed, is the Agena D upper stage propulsion vehicle. This program was also quite successful with the first vehicle being delivered approximately seven months after contract go-ahead. The vehicle performance met or exceeded requirements with a 12-16 percent cost growth. Significantly, access to this streamlined managed program was strictly limited but not because of security considerations.*

Characteristics of the (Tailored) Streamlined Management Approach

There are several key characteristics common to streamlined management programs. The focus of the entire management method is on the relationship between government and industry and centers on the working level activity of the contractor. Authority is highly decentralized to the government program office and on to the contractor's project organization. Both groups operate very independently with rapid, direct communications between them and the appropriate decision makers. A close knit, hands-on, management relationship exists between the two project organizations. Both government contractor organizations are small in numbers of people but strong in talent and initiative. Most of these programs enjoy high priority with only minimal funding changes. Also, most have restricted access due to security considerations, but at least one example created the limited access environment strictly for the benefits in responsiveness and

economy of operation. Significantly, most of these programs were unusually low volume production systems with limited deployment and contractor intensive support.

Although, a streamlined management approach has in the past denoted highly sensitive/classified programs, this investigation indicates that it could be tailored for other programs. Thus, the primary purpose of this paper is to expand on an examination of generic traits of the streamlined (tailored) approach and to recommend candidate programs upon which to test this type of acquisition strategy.

SYSTEMIC CONCERNS

Recent work in analysis of the current acquisition process, especially that underway at the Rand Corporation, suggests that the front end of the process may be the key to reducing acquisition times. There is a growing belief that the lengthening requirement validation and concept formulation phases are the prime factors contributing to the stretch out of the cycle. At the same time, there is an equally strong belief, accompanied by pertinent empirical data, that full scale development times have remained relatively fixed over the past twenty years.

Much of the information obtained by the study team in discussions with Air Force and industry people directly involved in system acquisition work supports the idea that a better job of stating capabilities is a crucial need. There is a common and persistent belief among this group that OMB Circular A-109 has exacerbated the "long front end" process. However, a review

of new starts since implementation of A-109 provides no conclusive evidence that this is the case. In discussions with OMB representatives who authorized A-109, the opposite contention is made, i.e., the A-109 policy can be a positive help in reducing acquisition cycles.

Within DOD, there is a continuing attempt to reverse the unfavorable trends in the length of program acquisition cycles. The most recent work is embodied in revised DODI's 5000.1 and 5000.2. Review of these directives, both of which are still in draft, indicates a positive recognition of the importance of tailoring acquisition strategies. Indeed, the prime feature that the proposed policy and procedures evidence is the focus on allowing a Systems Program Director initial unconstrained choice in tailoring an effective and efficient strategy.

Although sound DOD policy is necessary, it appears that operationalizing such direction is equally important. There is no evidence that this transition from policy to performance has been done effectively. Indeed, the overwhelming majority of those individuals contacted, perceived a serious deficiency in this very area. The slow, uncertain MENS review and approval cycle is cited frequently as an example of this failing.

Of even more concern to most of those contacted was the lack of stability in allocation of resources. a review of the final stages of the budget formulation process for the FY 1980 President's Budget highlights this concern. By late December

1978, the OSD control system had degraded to the point that the military departments had little or no visibility as to the exact state of their programs. This almost quixotic condition carried on into January 1979 before the OSD Comptroller was able to restore the needed administrative discipline to the formulation review process and finally structured a balanced budget request.

An even more recent example of instability in resource allocation is the Air Force FY 81-85 Program Objective Memorandum formulation. The failure to make a substantive linkage between the output of the Air Force Planning Guide and the output of the Program Review Committee in the Air Staff Board corporate review process is clear. So, too, is the subsequent loss of discipline within the review process which culminated in last minute major perturbations to the total program. Functional managers were severely constrained in their ability to effectively balance planned program content within prescribed guidance. Once more there was a noticeable lack of system discipline and corresponding evidence of program instability.

Beyond the concerns for ineffective implementation of policy and lack of stability in resource allocation is the major concern of growth in program oversight. This function too has seemingly lost the degree of discipline needed to allow program directors sufficient time to manage their programs. An almost universal observation from those involved in program management is that the informational demands imposed by higher echelons have become excessive. Except for those programs where security considerations

limit access, there is a continued propensity for everyone wanting to know.

Much of the information requirements is placed upon programs by the Services. Added to this are the growing requirements for program data imposed by OSD, OMB, and the Congress. The affect appears to be a dilution of program management capability with no evidence of real value added payoffs in the quality of decisions made at higher levels. The cost of meeting program informational demands is not explicitly known and there is no indication that those generating such requests are in any way accountable for their contribution to program overhead.

PROPOSED ALTERNATIVES

The major effort of the study is directed toward selectively identifying programs that would benefit from application of a tailored acquisition strategy that incorporates basic traits of streamlined management, and, in particular, that explicitly values time. The goal of such a strategy would be to deliver needed capability in a reasonable time, an acquisition cycle of perhaps five to seven years vis-a-vis the twelve or more years that have become the norm.

Selective examination of the characteristics of systems acquisitions which have successfully met compressed IOC's was made. From this analysis a set of generic program strategy traits is derived. Each of these is discussed in subsequent paragraphs.

Quality of Managers

There is no substitute for excellence in management. Repeatedly, the finding that the success of a program depends most on the performance of the Systems Program Director, his staff and the contractor was confirmed. It is clear that competent managers are the key ingredient in overcoming the effects of the systemic problems already mentioned. Selecting the best managers to do the most important work is the first and most crucial step in insuring that high priority programs are successful.

Limited Access

A small cadre of highly competent Air Force people have managed multi-million dollar acquisitions successfully. Invariably they have been allowed to manage. In most of these cases, the reporting requirements and other information demands were highly constrained. Thus, the limited oversight served to allow the focus of the Program Director and his staff to remain fixed on getting the job at hand done. Interviews with those who have worked in SPO's that enjoyed this controlled access oversight arrangement confirm the importance attached to the characteristic.

Financial Stability

The efficiency gained by maintaining a stable funding profile is well understood. This multi-year consistency in allocating program dollars has been another feature of programs that achieved IOC's in much shorter times than the norm. Stable

11/14/77

program work content is achieved when planned, programmed and budgeted resources remain relatively fixed. Programs that exhibited this characteristic have avoided contract grapping and the attendant losses of time and dollar utility that result.

Financial Flexibility

There is considerable evidence that programs that have small production quantities with large unit costs could benefit from the added flexibility that incremental funding of production costs provides. Spaced based systems appear to be logical candidates for special application of AFR 172-1, the principle directive for classification of program content into funding types. The authority needed is to permit procuring satellites and space systems equipments using incremental funding up to the point of deployment of the fully operational system. This approach could reduce overall system cost while increasing the program manager's ability to incorporate modifications or block changes to system units, as has been done in the Defense [System] Meteorological Satellite Program (DSMSP).

Other Authorities

There are other ingredients such as stable assignments of Air Force SPO personnel which could contribute to a positive program management environment. Moreover, from the foregoing paragraphs, it becomes plain that as authorities for autonomous decision making are added to the repertoire of management tools given a Program Director the potential for reducing acquisition times grows. But so does the risk. There is no panacea for

correcting the situation. Higher risks are the price for managing uncertainty associated with compressed acquisition times. Only excellence in managing can balance this circumstance.

CANDIDATE PROGRAMS

Building a list of programs that appear best suited for tailored strategies designed to achieve early IOC's is, at best, a subjective process. Nevertheless, application of the generic characteristics described across the planned development program does yield a set of programs that appears reasonable. No single criterion has been considered dominant in constructing the list, but rather the convergence of multiple traits has guided the selection. These programs are as follows:

Satellite Early Warning Systems

Seek Talk

AMRAAM

WAAM

Strategic Satellite System

Ballistic Missile Early Warning System Upgrade

IMPLEMENTING ACTIONS

The Program Element Monitor for each program listed should carefully review the current program plan in the context of achieving a compressed successful acquisition. In concert with the System Program Director, he should develop a basic charter granting those explicit management authorities needed to achieve program objectives. The charter should then be submitted to the Deputy Chief of Staff, Research, Development and Acquisition

for review and approval along with a recommendation of who within OSD should ultimately sign it.

Concurrently, proposed changes to Program Management Directive should be developed that reflect the management authorities of the charter. The important consideration in structuring the direction conveyed by the PMD is to provide broad management authority to the Program Director. In this regard, PMD's should describe explicitly those aspects of program management unique to the program.

During the POM review cycle the set of programs selected for special consideration should be reviewed separately and, in effect, treated as a "set aside" as is done for streamlined managed programs. Approval of the Chief of Staff and Secretary should be obtained and subsequently the approval of the Under Secretary of Defense for Research and Engineering should be sought. Since program resource stability is a key element in these tailored strategies a fenced funding profile will be necessary beginning with the October Budget Estimate Submission.

Clearly the major hurdle in implementation is the mind set of the bureaucracy at every level which tends to not want to allow any program the perogatives described. Thus, obtaining a firm commitment and strong support from the senior leadership and the rank and file in their staffs is essential. A convincing argument for undertaking the project must be made or the inertia of the system won't be overcome. To this end,

a deliberate initiative to inform those effected is needed.

Assuming success in obtaining agreement in the Air Force and then OSD concurrence, further agreement by OMB and the Congressional Committees with oversight responsibilities is needed to assure stability in resource allocation. Programs that have had highly contentious issues as to need or concept that are not yet resolved should be limited as initial candidates since it is unlikely they would be accepted by these external oversight organizations. Key staffers in OMB and Congress responsible for these programs should be briefed on the Air Force initiative in the Fall as they prepare for review of the FY 81 President's Budget Request.

The way AFSC structures SPO's to manage these programs is a still more important consideration. There is no doubt that early agreement to alter the traditional way of doing business within the product divisions is essential. Cooperation in achieving the basic objective of compressing acquisition schedules while maintaining performance and cost goals is absolutely necessary. To achieve this AF/RD must obtain AFSC support early, preferably before the MAJCOM BES submittals.