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WHICH FUTURE FOR THE PLANNER: PROPOSALS

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Carlisle Barracks, Pennsylvania

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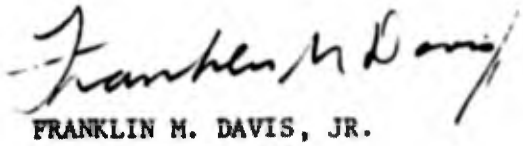
This research memorandum was written by Mr. John R. Cameron, Assistant to the Director, US Army War College Strategic Studies Institute.



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Commandant

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13. ABSTRACT

Distinguishes between four categories of studies: technological forecasting, threat studies, environmental (socio-political) forecasting, and concept studies and highlights their contribution to defense decisionmaking. Presents nine non-mutually exclusive rationales for consideration of the future. Four timeframes (near, mid-, long-, and very-long-range) are discussed showing the interrelationship of the constituent parts. Particular emphasis is given to a proposal for an unconstrained very-long-range study. Calls for approaching addressal of the future in a manner (a) provides guidance, (b) which relates products addressing each timeframe to the closer timeframe studies, and, (c) which provides a guide to proper balancing of resources and the type and extent of output. The emphasis of the proposals is to make decisions in light of the future and to make current decisions supportive of desirable future conditions rather than reactive to contemporary events.

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SUMMARY

This research memorandum distinguishes between four categories of studies dealing with the future: technological forecasting, threat studies, environmental forecasting, and concept studies. In so doing it highlights advantages and disadvantages with respect to their contribution to the processes of defense decisionmaking.

Nine non-mutually exclusive rationales are presented for consideration of the future by the decisionmaker and proposals are suggested for reform of the study system which would respond to these rationales.

Four layers of decisionmaking at four timeframes (near, mid-, long-, and very-long-range) are discussed showing the interrelationship of the constituent parts. Particular emphasis is given to a proposal for an unconstrained very-long-range study.

The report calls for approaching the addressal of the future in a manner (a) which provides guidance which does not smother innovative thinking, (b) which relates products addressing each timeframe to the closer timeframe studies, and, (c) which provides a guide to proper balancing of resources committed to each timeframe and the type and extent of output necessary.

The emphasis of the proposed system is to make today's decisions in light of the future and to make current decisions supportive of desirable future conditions rather than solely reactive to contemporary events.

> We can no longer afford to approach the longer-range future haphazardly. As the pace of change accelerates the process of change becomes more complex. . . . Our need now is to seize on the future as the key dimension in our decisions, and to chart the future as consciously as we are accustomed to charting the past.[1]
>
> . . . Richard Nixon

> . . . defense planners have shown a remarkable attraction for strategies and systems which relate less to current and future conditions than to the world as it existed decades ago.[2]
>
> . . . George McGovern

These two statements, coming from two diffierent sources and contexts, are part of a continuing theme. Both President Nixon and Senator McGovern show concern that analysis of future conditions have an impact on current decisions. They provide further recognition to what has long been stated: "We can not avoid thinking about the future. We do so implicitly: it is better to do it explicitly."[3]

DECISION FOCUS

Within the Defense Department, there is an elaborate planning system established by the Joint Chiefs of Staff and each of the Services. (See figure 1.)

However, the focus of these is to guide present decisions particularly, those associated with the budget. Decisions made against the background of today's constraints and opportunities are obviously an integral part of any management system. But necessary as this framework is, there are dangers of being buried by it without clear unconstrained views of where one might want to be in five, or fifteen years.

Too frequently, decisions are not made in response to well considered agendas, but in response to the crisis of the moment. Rather than an ordered approach to decision, when the necessary materials, data, or analyses can be developed, the decisionmaker is forced to rely on what he already knows or can rapidly put his hands on. This all too seldom includes futures analyses.

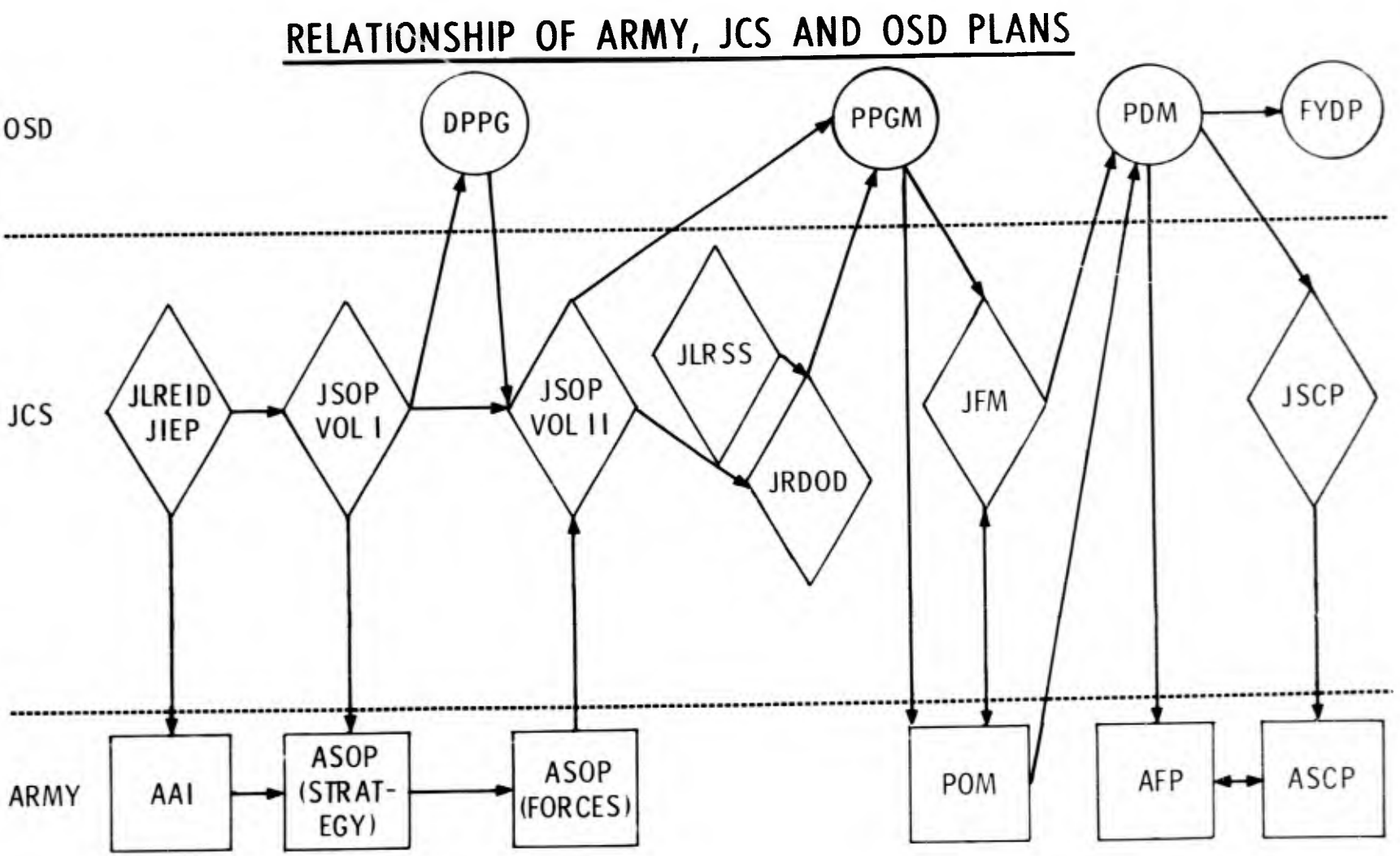
RELATIONSHIP OF ARMY, JCS AND OSD PLANS
OSD
JCS
ARMY
DPPG
PPGM
PDM
FYDP
JLREID
JIEP
JSOP
VOL I
JSOP
VOL II
JLRSS
JRDOD
JFM
JSCP
AAI
ASOP
(STRAT-
EGY)
ASOP
(FORCES)
POM
AFP
ASCP

Figure 1

The problem is how to relate analysis of the future in the most suitable manner to the making of contemporary decisions and policies.

It is not often understood that many of the decisions made today have significant implications for the future. The strategies we adopt will profoundly affect the course of international events. These in turn will feedback and impact on the military structures required. Similarly, some items of equipment entering the inventory today will remain there for 10 to 20 years, sometimes longer. Force structures and tactics will have to be modified around these items, in conceivably, less than optimal modes.*

Thus, while decisions cannot be postponed and the parameters are largely fixed by contemporary forces, the implications of these decisions can become constraints on the future itself. This argues for consideration in the contemporary decision process of analyses of future implications--and demands explicitly addressing how a decision will modify future expectations, constraints, and opportunities.

If current decisions are to include considerations of the impact on the future, then the future must in some way be defined and be available and credible to all levels of decisionmakers, not just to a few specialists.

Future analyses must feed into real life planning cycles and decisions. Relating the various types of futures analyses now being produced to planning and decisionmaking is a key problem which needs clarification.

There are essentially four basic forms of futures analysis. Technological forecasting is perhaps the most well known and the most methodologically sound. While there are problems within this field, it is the most clearly understood in terms of its functions, capabilities, limitations and contributions. It has the distinct advantage of working with readily quantifiable data and of being recognized as an area to which resources must be committed, if for no other reason than to guide procurement decisions.

THREATS

Threat studies can be simply defined as estimates of enemy capabilities to wage war. Likely enemies are defined; worst case intentions assessments

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*The concept has been advanced that "technology expansion space" be included in long lifetime items to permit easy addition of new "black boxes" as they are developed.

are employed. The emphasis therefore, is on factors external to the United States. Treatment of nations is limited to those which are perceived to pose the major threat.

Addressing only a few selected nations has the very serious effect of limiting the range of hypotheses for the future which can be drawn from such an unnecessarily constrained study. The decisionmaker is only given certain guideposts about the future. The inferences he draws may therefore be skewed in one direction or another.

It is natural to consider the United States as the driving force of at least the Western World, but it may be undesirable to do so if we do not consider the impact of our actions on the needs, interests, and policies of other nations. The world system is interactive; we respond to external stimuli as well as to the directions we desire.

Yet most studies dealing with the threat in a pure sense do not discuss the evolution of social, economic, and political factors in the United States which will have a major impact on our objectives and policies. These domestic factors, including consideration of radical movements, influence the actual decision made. Threat studies are proscribed from addressing the cross-impact of our policies and actions on those of other nations, since the base for such analysis is missing or deficient.

Further, these studies must rely heavily on extrapolation and trends based on existing data. This introduces further possibilities for bias by not allowing for new concepts, doctrine, technology, or policies of the enemy state.

These studies do not normally address strategies of either the enemy state or those possible for the United States. They neither consider the possible future shifts in international relations, nor give an adequate basis for decisions on types of forces appropriate for US needs.

ENVIRONMENT STUDIES

An alternate approach is the environment study. Because of their more expansive content, these are more responsive to defense planning and decision-making needs. The environment study may be simply defined as a composite view of the world; considering all relevant factors of world power relationships. This leads to consideration of political, economic, sociological, psychological, technological, and military dynamics and their crossrelationships.

Environment studies, therefore, offer greater support to the development of national security policy and its implementation by forcing consideration of the broadest range of challenges.

The central feature of the environment approach is that it takes a "totality" view. All nations are analyzed including the United States. All factors, trends, and possible outcomes are evaluated. And all are cross-related for hidden or second or third order consequences. This ideal is met to varying degrees by each environment study, but it does differentiate it from threat studies.

This approach does not preclude quantification. Such complex computer simulations as the Forrester World Dynamics model* and its successors may contribute a great deal to the futurists' ability to assess systemic changes and consequences. But the burden still remains with the analysts' ability to derive issues, conceptualize, and be creative.

The relationship between threat and environment is complex. Consideration of the environment--explicitly or implicitly--leads the threat analyst to select which nations to concentrate on. It is far better to be explicit; to have a solid basis for the threat analysis. However, in dealing with known threats, responses can be generated without environments. Environment complements threat when the possible responses are played against environment to test for political and economic feasibility and acceptability.

The final point to be made for environment studies is that they provide a better context for the development of national and strategic issues analysis. These analyses, even when addressing issues narrow in scope, cannot be done in the relative isolation produced by considering only the future conditions of enemy states. Adequate policy and strategy cannot be formulated without considering more than the immediate actors. Environment studies should provide this more general framework**

CONCEPT GUIDES

In recent years, some military services have attempted to provide coherence for planning and decisionmaking through development of several large conceptual study efforts dealing with advanced time frames. Under this approach, there is at least one major umbrella study for the mid- and the long-range timeperiods. In addition, there are a number of other studies which appear to overlap--at least in time frame addressed--but which detail particular segments. These valuable and innovative studies go a long way to meeting the needs of planners and decisionmakers even in their sometimes multi-volume format.

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*Jay W. Forrester, World Dynamics (Cambridge, Wright-Allen Press, 1971) employs a multiloop, non-linear computer projection of key variables (food, resources, industrial production, population, pollution, standard of living) as the first attempt at modeling the future course of the world as a whole. This effort has stimulated wide varieties of responses but much agreement on the need to develop further these types of approaches.

**One problem with many environment studies is that they frequently are tasked to create products beyond a statement of the future environment(s) and are judged not on the former but the latter. The result is that the environment work can be "lost."

It may, regrettably, be argued that there are three major disadvantages to this methodological approach.

First, it is not entirely clear how long-range and mid-range efforts are integrated or related to each other. It would appear that no formal mechanism exists to use the long-range as guidance for the mid-range or to use the mid-range as input to the long-range.* This is further complicated by the fact that weapons or tactical innovations for example, addressed by a long range strategy, may, with resource commitments, be implemented now. The long-range concept should serve as an objective, with the mid-range designed as a transitional stage, when organizations, systems, or other developments cannot be achieved by the mid-range period.

To the extent that decisions concerning the recommendations of mid-range studies are made independently of other studies, studies in other time frames become either superfluous or merely project the results of mid-range decisions. In that case, the long-range effort will need constant adaptation to follow the mid-range effort. They would not be able to assert the leadership and guidance they would if decisions on mid-range issues were made in the context of future oriented analysis.

Second, many individuals within and external to government who credibly argue that particularly long-range (and to a slightly lesser extent mid-range) conceptual studies grapple with the elusive. They argue that the future beyond the near term cannot be predicted with any confidence.** Therefore, they contend, that complex, highly detailed studies are neither valid nor useful. For the planner and the futures analyst, this criticism causes concern for its application to concept studies has validity.

Third, concept studies all too frequently are developed devoid of strategic guidance. These studies are provided with detailed objectives, technological data, and various threat materials. But they operate in a strategy vacuum without approved, broad-scale, strategic concepts.***

---

*The long-range JLRSS, for example, is not defined by OJCS as an input to the mid-range JSOP.

**Prediction, it must be recalled, implies certitude whereas projection only implies possibility. Difficulties arise with respect to the latter since many decisionmakers insist they need a specific answer or the "most probable." If not provided, there then is a tendency to pick their own without benefit of full analysis. What probability is high enough to satisfy and how does the criteria differ between a strategist or an engineer producing a communications component? Does .75 satisfy or is .9 required? And who is satisfied by which?

***In some studies, this gap is recognized by the study agency which postulates strategy; nonetheless, the lack of approved strategic guidance remains.

Few could argue that the future can be viewed with certainty given the techniques now available. However, tools are improving to the point where interactions can be pinpointed; trends better assessed; and ranges, if not specific values, shown with some reasonable assurance of accuracy.* Much of this evolutionary work is theoretical, dealing with different approaches (i.e. applying systems methodology to political analysis) and with new conceptions and perceptions of macro and micro political behavior. The susceptibility of many of these techniques to computerization is only incidental.

Finally, greater attention is being paid by the theorist to user needs, rather than to presentation of tools or analyses (which may not be relevant.) This gives greater hope for advancement of the study and the utility of futures within military planning and decisions. In the meantime, long-range concept studies decline in usefulness in proportion to the degree they rely on finite detail instead of needs, alternatives, and ideas.

II

WHY ANY FUTURE?

If indeed there are differences between threat and environment studies and if there are difficulties with concept study programs, why be concerned with the future at all? Is it perhaps not worth the effort?

There have been several attempts to state rationales for analysis of the future and it has been the subject of discussion at several professional military and civilian symposia.[4] The subject has not had the attention it deserves largely because practitioners of the craft "know" such analysis to be necessary. But military decisionmakers have different frames of reference, and do not necessarily share the same belief.

The following are rationales, not mutually exclusive, for addressing the future in contemporary military decisionmaking.

Decision Effects. Value can be derived from assessing the effect of current decisions on the future. What positive or negative results will occur? What n-order consequences are possible? What are their results? Futures studies can provide a base against which decisions can be evaluated either for effect on world events, the nature of the threat, or on future force concepts. In this way contemporary decisions can be made future-oriented.

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*It may be well to note here that futures analysis may be most successful when they do not stand the test of time in their portrayal of negative events if the analysis has resulted in action to prevent negative aspects of the forecast.

Warnings. If present trends and policies continue, what could go wrong? What steps could be taken now or at some future point to change directions away from unwanted conditions? What steps should be taken to prepare for negative situations likely to develop but not under the decision-makers control? By developing and using the range of future studies, warnings can be seen, planning can begin before the crisis, and the crisis itself may be averted.

Opportunities. The decisionmaker not only seeks to avoid the unpleasant but to achieve desirable goals. What conditions in the future will permit initiatives? What should be done to prepare for such initiatives? Use of futures studies should not be viewed as preventative or negative only. Opportunities for positive action should be seen, as well as warnings.

Options. The future is subject to control; the past is not. Only in the future will conditions differ and permit policy and action flexibility. Trends (or historical forces) have various possible outcomes dependent on time and on factors we can manipulate. With a view of the future, it becomes possible to consider and to move toward a wider range of options.

Strategy. Strategy responds to both the relatively constant national goals and to changing world conditions. Strategy should provide a unifying framework for a variety of military factors (forces, tactics, doctrine, deployments). With strategy formulation tied to evaluation of the future it can become dynamic and adjust to emerging conditions as they occur and be less subject to radical change with its disequilibrium effects. In this manner policy, strategy, and supporting forces will be less tied to the prevention and fighting of wars as they were in the past and more to the reality of likely future conflicts.

Forces. The proper determination of the mix of men and materiel is a constantly vexing issue. Will a given force structure be adequate for the tasks required. With futures analysis reducing the uncertainty, forces could be tailored to meet most likely tasks, and materiel options developed to support most likely employments.

Resource Allocation. One of the most troublesome issues is where to put the most dollars. What will be the effect of funding this program and not the other? What capabilities will these procurement dollars bring today? What capabilities will be lost for tomorrow by denial of research funds? And, how significant will be the losses? Analysis of futures will provide some guidelines for these difficult decisions.

Derived Issues. Each new day brings its own set of problems. To the extent that they can be foreseen and given prior preparation, the impact can be minimized. Thus, analysis of futures should provide guides as to what needs to be studied or analyzed, and decisions made before the full weight of the problem is at hand.

Desired States. Too frequently, it is charged, decisions are reactive. While the press of day-to-day activity often makes this necessary, future analysis can provide guidelines as to what is possible, and assist in setting goals. What kind of military is desirable in the future? What objectives should be achieved? The essential question is where should we be going? Knowing, or at least thinking about the answers to such questions can cause decisions to become prescriptive in nature.

These preceding nine points only highlight some uses of futures analysis; in so doing, they suggest thoughts for further use.

The heart of the matter is that decisions are simplified if the extent of the unknown is not recognized. But that has its own danger. Futures analysis can do more than indicate what is not known about the future but, if it does only that, then decisions--while more complicated and tenuous--can be recognized as such and measures taken to improve their quality.

III

MACROAPPROACH

If we desire to know the future, not just accept it, then a defined procedure must be established. This must support the objectives stated above while meeting valid criticisms of current procedures. It may not be necessary to disrupt existing document production, but rather incorporate it as an element of a reoriented and more expansive (but not larger) program.

The current force is a product of both contemporary factors and prior actions. In this sense, the concept studies done several years ago and the technological forecasts done before the concept studies largely shaped the concepts being implemented today. The actions of the near time frame--the next couple of years--are all designed to fit plans to the current force. This is the implementation period where all prior thought is used to improve this force and to maximize its capabilities. (See figure 2.) In proposing a new approach, it must be remembered that the desired end product is an effective military force capable of supporting national objectives.

The basic point is that the process must be viewed as a whole, as dynamic, and as interactive rather than as separate studies and actions existing by themselves. To convey this thought, a pyramidal structure may be more appropriate for illustrative purposes than the conventional flow diagram. It also allows a graphic suggestion of where resources should be applied.

MID RANGE

The base of the pyramid is the implementation of preceding actions into the current force structure. And the first level is composed of those

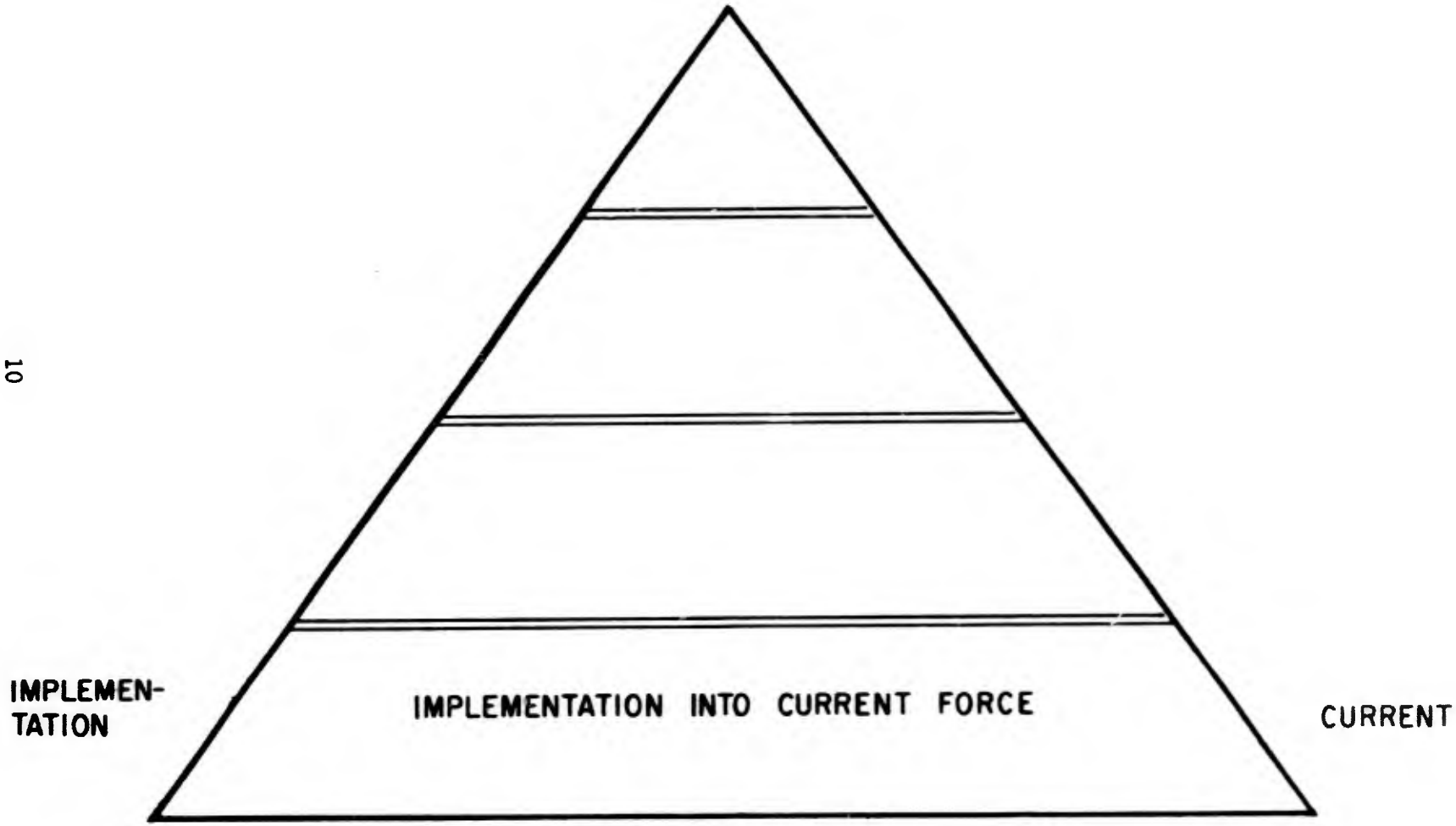
IMPLEMEN-
TATION
IMPLEMENTATION INTO CURRENT FORCE
CURRENT

Figure 2

studies and decisions associated with mid-range planning actions.* This level should be concerned with the details needed for implementation including training requirements, personnel requirements, doctrinal publications, tables of distribution, and other necessary related areas. This level must be concerned with matching the plans and decisions with existing capabilities to determine what gaps and what excesses exist.

For the mid-range, a fair degree of prediction of world events and technology is possible. The environment forecast can be regarded with a moderate degree of confidence, the threat can be depicted quite accurately, and the technical (or weapon system) opportunities can be clearly defined.

Strategy studies should be viewed as the core element. Strategy blends environment, threat, technology, and policy into the optimum means of using the nation's resources. National policy will be evident in broad outline, so that strategy studies can be securely used as a basis for decisions. This relative certitude and well laid out strategies permit the detailed development of a mid-range implementing concept. However, such decisions must still allow for the unexpected, for the vagaries of politics, and for the unpredictable outbreak of conflict. (See figure 3.)

More important is that mid-range planning can be viewed as constrained. First, it is constrained by what national and international events are perceived as portending and by announced policies. Little "play" is allowable since real decisions are being made; there is little room for "ranges" of "possibilities." Thus it is constrained by what is seen, and not led by what could be. Second, it is constrained by projections of available funds. Third, it is constrained in a very real sense by lead times for new weapons or other equipments. Mid-range planning must in a sense "make do" with what is already close to production; there is generally insufficient time to create new, sophisticated hardware. Fourth, it is constrained by the decisions made on long-range planning matters which indicate directions or which allocate priorities for research and development funding.

LONG RANGE

The next level, the long range, is one further level removed in time and abstraction. At this level, "prediction" is less likely, the indicators being less conclusive. "Projection" is possible and relevant. Those required to deal with single projections of environment or threat can do so only when aware of the limitations. Rather, the analyst must deal with a range of possibilities.

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*Each Service and sometimes subordinate commands define near, mid, and long range somewhat differently. Further, time definitions are usually made in current plus X years. In consequence, the difference in initiation dates causes studies ostensibly on the same period to cover different calendar years.


ENVIRONMENT
THREAT
TECH OPPORTUNITIES
STRATEGIC SELECTIONS, PLANS
CONCEPT REFINEMENT, FORCES DOCTRINE
DETAILS
(REQUIREMENTS)
IMPLEMEN-
TATION
MID RANGE
CURRENT

Figure 3

In this layer analysis in terms of issues, principles, representations, patterns, general notions, and ideas is central to the macroapproach. Further, there is reduced pressure for finite decisions. Decisions reached will rarely have an immediate effect on the current force. Therefore, the analysis need not provide each facet or answer--only guidelines. (See figure 4.)

The central question posed to decisionmakers, in reality, is "Is this an acceptable direction for further development and refinement?"

The same elements as for the mid range layer should exist. But they need to be significantly different in basic nature, not simply addressing different time frames. The emphasis in the long range should be on developing as wide a range of thinking as possible--on plumbing all realms of rationality.

The environment study must address an integrated range of possible world configurations. Threat production will depict a range of possible capabilities. Technology considerations should center on what scientific possibilities exist which could yield new systems.

Strategy studies must also set forth alternatives to provide both means to combat negative conditions and to achieve positive conditions. Strategic studies in this layer need to include analysis of roles, missions, and general tasks for Services. Long-range studies which define particular strategies and particular support requirements may be less useful than the definition and discussion of the factors inherent in the subsequent development of the strategies. The long range concept study should, based on these ground-breaking elements, provide alternatives to support the range of strategy choice.

At this state, what is developed is not as important as identifying what should be considered by subsequent efforts. The decisions within this layer are to set directions. The whole pyramid must be viewed as providing timely decisions downward (or forward in a time sense) to those developing detail and implementing.

Environment studies, threats, technological possibilities, and (most importantly) the likely course of strategy provide the basis for the concept study. As decisions are made, parameters are produced for the concept study and its development of constructs.

The value of the concept study is not the constructs themselves but what should be derived from them. That is, statements on what technologies should be emphasized in funding, what organizational needs can be identified, what supportive systems need modification, and related areas of questioning. Such rationalized and consistent statements should provide guidance to the mid-range planning layer for determining details, operations, and development.

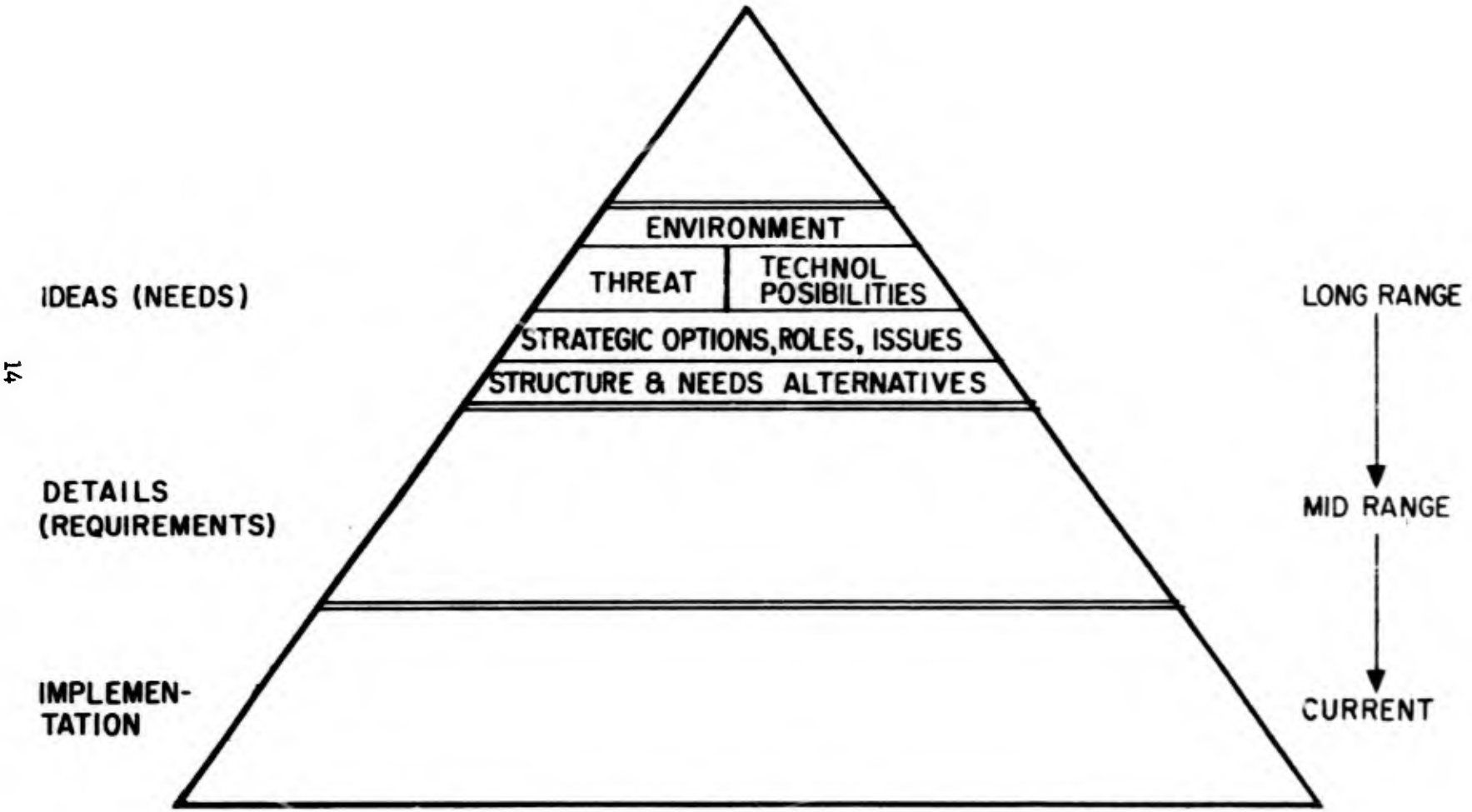
ENVIRONMENT
THREAT
TECHNOL POSIBILITIES
STRATEGIC OPTIONS, ROLES, ISSUES
STRUCTURE & NEEDS ALTERNATIVES
IDEAS (NEEDS)
DETAILS (REQUIREMENTS)
IMPLEMEN-TATION
LONG RANGE
MID RANGE
CURRENT

Figure 4

IV

VERY LONG RANGE: A PROPOSAL

The system cannot be called to a stop at this point because it would remain incomplete. What is lacking is the portion of the pyramid which goes further than those efforts associated with specific strategic and concept issues and actions (See figure 5.) It must do so to provide guidance for long lead items, programs, and actions and, perhaps more vitally, to expand our range of vision and thought.

This proposal envisages a short study addressing a time frame beyond the conventionally defined long range. It would not be a plan, with all the connotations and implications thereof.* It should be essentially an unconstrained study. Its purpose would be to provide general issues which deserve consideration, to provide "targets" and "opportunities," and to consider the general parameters of the distant future. Its principal function should be seen in its ability to provoke thought and insights by planners and decisionmakers, and in the resultant feedback into the lower elements of the pyramid.

An essential element of such a study would be a section(s) which would encapsulate the study in terms of a list of current issues. In this way the study views would be focused to points of current relevance and on enhanced communicability.

The setting of priorities for basic research in any discipline implicitly recognizes considerable lag in true payoff. While research for knowledge is a fine abstract goal, it has little place in military decision systems which, under democracies, must constrain their role to specifically authorized functions. Basic research is necessary to build a total military force of people and systems. But the guidance for dollar allocations does not best come from long range planning which must fit already established research and development decisions and processes. These are already constrained by the basic knowledge available and deal to a greater or lesser extent with applied research or development. Hence, in order to be sufficiently far ahead to influence both materiel and social science research there must be a means for establishing guidance. It is to this point that this very long-range proposal first responds.

Existing long range planning actions too often are constrained to the extent that they are part of a system. They must come to some resolution of the myriad issues before them. There are deadlines and decisions to be made. They also must deal with the information available. In this regard technology parameters may already be established.

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*Planning, as used here, means the setting of courses which others must follow, resource allocations, and has coupled with it some time phasing aspects. Studies, to the contrary, are research efforts addressing issues, developing facts, reaching conclusions, and making recommendations.

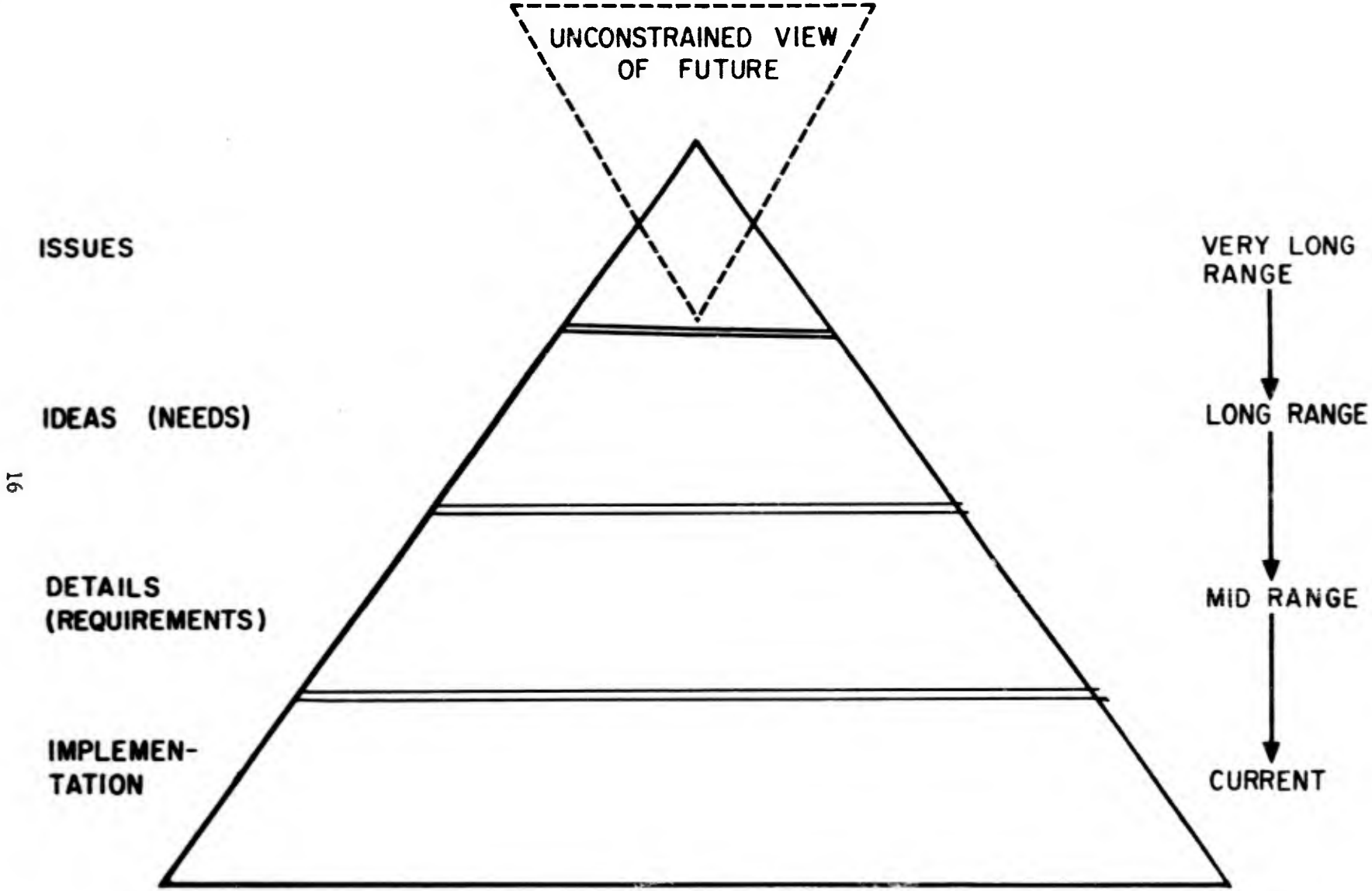
UNCONSTRAINED VIEW OF FUTURE
ISSUES
IDEAS (NEEDS)
DETAILS (REQUIREMENTS)
IMPLEMEN-TATION
VERY LONG RANGE
LONG RANGE
MID RANGE
CURRENT

Figure 5

More importantly, there is little freedom to experiment with innovative ideas, with trial baloons, or to deal with issues rather than plans for specific actions. There is little freedom to devote effort to the stimulation of ideas and to the subsequent analysis of even "way out" ideas which might produce relevant idea cores. This is the second point to which this proposal responds.

Beyond the long-range time period there is still a future, some millieniumists to the contrary. This misty area must be investigated.* The third point of the proposal is that trends to not remain unchanged forever and studies based on the evaluation of trends may be seriously biased by not going the one or ten more years into the future to where a turn may occur. Furthermore, trend analysis alone is insufficient. Scope must be provided to expand our range of thought beyond the immediate. The institutional setting must be provided where policies, concepts, and strategies can be conceived freely, where the basic questions can be developed rather than answered, and where attention can be given to communicating ideas rather than meeting study requirements.

By looking into this advanced period, questions or issues may be formulated for proper study. From these, in turn, will emerge guidance, ideas, or concepts for the lower elements of the pyramidal planning and study structure to consider.

The very long range study would deal in a loose style with issues--would consider how they might evolve, what implications would ensue, and what could be done by the security decisionmaker. The study would emphasize alternatives, challenges to old ways, and stimulation to thinking both in content and in format. It must not be stodgy.

A DYNAMIC PYRAMID

Unlike the pyramids of Egypt, the proposed pyramid is interally dynamic. Each component feeds on others. Each gains strength from those above rather than below (See figure 6).

For each layer, the environment study leads to and sets the context for the threat and technology studies. In the long-range period technology should be addressed as possibilities; in the mid-range as opportunities. In both cases technology should not be projected in isolation but in terms of goals for which alternate technological solutions may be possible, and which may produce better results than mere product improvement. From these preceding elements, strategy can be formulated: in the long-range as national options; in the mid-range as plans and as a selective process. Strategy,

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*Depending on definition of the long range period, a few studies have reached beyond the conventional current plus 20 years definition into the very long range.

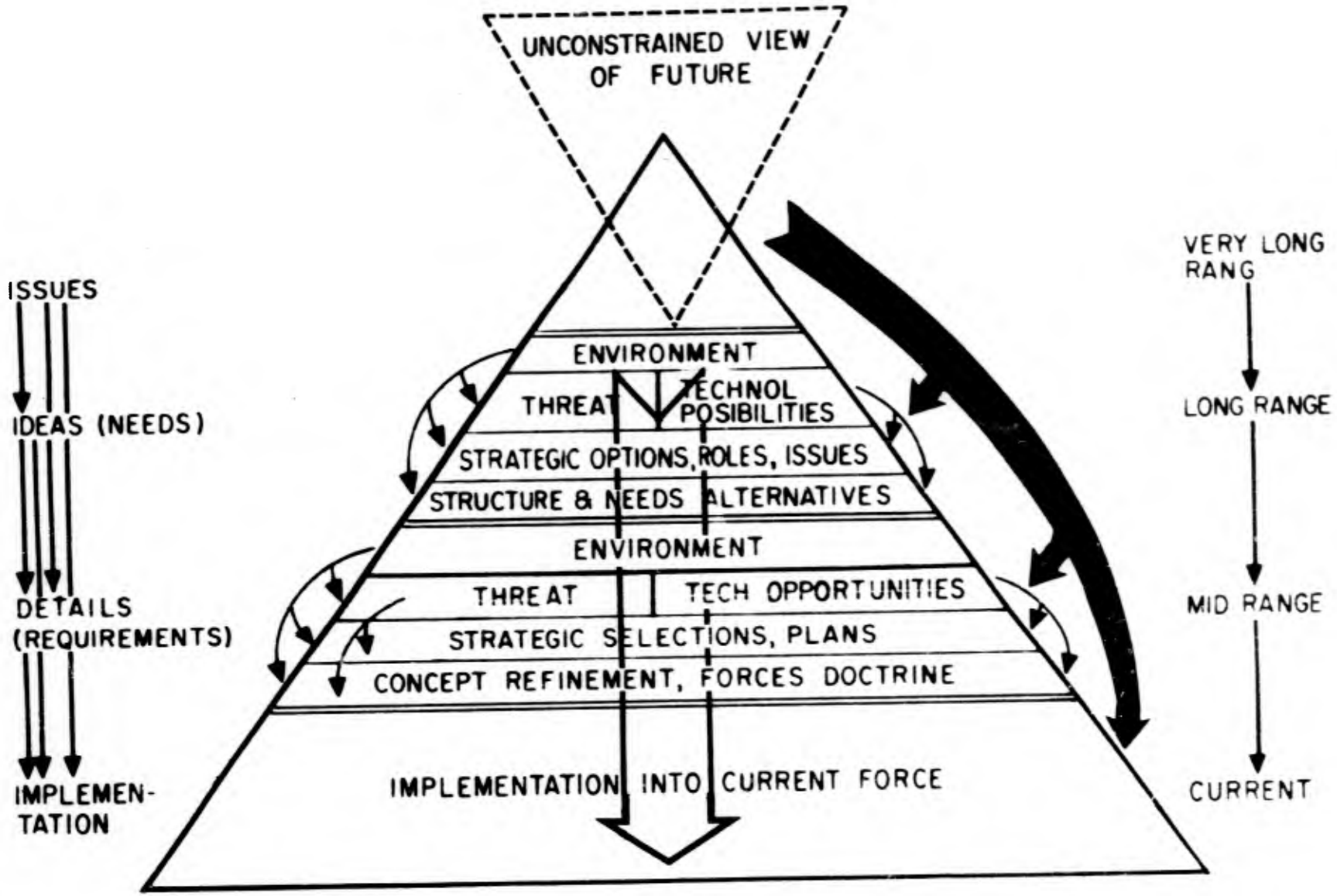
UNCONSTRAINED VIEW OF FUTURE
ISSUES
IDEAS (NEEDS)
DETAILS (REQUIREMENTS)
IMPLEMEN-TATION
ENVIRONMENT
THREAT
TECHNOL POSIBILITIES
STRATEGIC OPTIONS, ROLES, ISSUES
STRUCTURE & NEEDS ALTERNATIVES
ENVIRONMENT
THREAT
TECH OPPORTUNITIES
STRATEGIC SELECTIONS, PLANS
CONCEPT REFINEMENT, FORCES DOCTRINE
IMPLEMENTATION INTO CURRENT FORCE
VERY LONG RANG
LONG RANGE
MID RANGE
CURRENT

Figure 6

in turn, serves as the core integrating element leading to development of the concept study: in the long-range dealing with alternatives; in the mid-range selecting the most appropriate. Each element of each layer would relate to its like element and provide for refinement of the long range ideas and needs into mid-range detailed plans, for implementation in the near time frame.

In the pyramid the current force is at the base; all else is above. All conclusions, recommendations, and insights have a conceptually simple path to the base by going outside the pyramid. This provides for rapid integration of any good ideas without the necessity for tracking through the system itself.

Procedures must be developed to facilitate this process; including specific direction to study elements to decide what part of their work could be integrated now, regardless of the focus of the study or plan. They may need to be required to formally relate their work to current issues in an appendix or frontpiece. Or, it may require a small separate staff activity constantly reviewing mid- and long-range writings and studies for immediately applicable portions.

V

THE RESOURCE PYRAMID

The pyramid may also be used as a rough approximation of relative effort and resources to be afforded each layer and element.

It is true that the objective setting and guidance aspects of the top-most layers are the vital aspects of the system. But it is equally true that without the correct attention to implementation no great idea would ever be worthwhile.

Some critics, impelled by budget considerations and legitimate concerns about the usefulness of futures efforts, have questioned the utility of massive and numerous long range efforts, and would question the proposed very-long-range effort. Under the pyramidal concept, products would remain, issues would be addressed, and resources clearly allocated to futures study, but maximally to mid and implementation layers. This resource approach to the study program permits balancing in an overall sense as opposed to separately addressing single studies. Balance is also enhanced by considering the interrelationships within the overall system.

The pyramid, small at the top and large at the bottom, should also provide a perspective on the amount of paper published. The lower elements must deal with finite details and produce many implementing instructions and plans. But the higher levels should be dealing in successively greater levels of abstractions. In these, the idea is central and, if well stated, can be succinct.

If the mid, long-range, and very-long-range studies are to provide guidance, they must be in a form conducive to conveying that guidance. Excessive explication would convert guidance--implying some degree of freedom to refine, improve, or innovate--into direction. To be effective, guidance cannot be overwhelming in extent or it will smother innovation.

Thus at the apex of the pyramid, there should be a single, brief document. In the long-range, perhaps one document for each element of the layer. In the mid range, at least the concept, and perhaps the strategy elements will require a variety of studies on different aspects.

Another view of the pyramid approach is to divide it into two parts. The first, consisting of the two bottom layers, would produce plans as their outputs. Efforts in these layers would be intended to feed into other defined plans for specific actions. The top layers would produce studies intended to provide thought stimulation, to be easily communicable, and to serve as guidance to the planner working on the lower layers.

This leads to the conclusion that specifics are needed only in those layers feeding plans. For the other layers, ranges and contingency forecasts may be quite appropriate.

VI

SUMMARY: THE PROPOSALS

This analysis portrays the various elements of a planning system related to the concerns by decisionmakers today. The existing system needs to be reformed to one which is internally dynamic and interactive, where ideas in their broadest construction are guiding from the top, and where the layers within the proposed pyramid structure refine these into details for timely application to existing forces.

An analysis of the very-long-range future becomes the capstone of the pyramid. In serving that function it becomes the bottom of a further inverted pyramid, open ended, and containing vast areas for analysis. The future itself is not subject to limitation. It should be addressed without set perceptions, and can provide benefits to the rest of the structure.

By looking at the study programs of the various agencies it can be seen that most segments of the proposed pyramid approach already exist. The major exception is the unconstrained, innovative capstone study. However, the existing parts are separated by command lines, by differing approaches and theoretical bases, and by the illusion of a separate identity. Little attention is given to providing continuing means of moving from futures studies to the current force or from the long-range to the mid-range series of efforts. This is wasteful of dollar resources and of ideas.

The pyramid structure can allow improved integration of currently disparate elements. It does not concern itself with command territories, it draws attention to the feeding aspects of moving from addressal of one time period to the next, and it provides a place for truly broad, innovative thought.

By so doing at the appropriate level, and by making futures studies more communicable, reducing their size and making their presentation better fitted to the time constraints of the decisionmaker, these proposals could improve defense decisionmaking. They could do this by making clear that the future is being affected by current decisions, and by providing indications of hopefully "desired" states toward which contemporary decisions can be made supportive.

ENDNOTES

1. Richard M. Nixon, U.S. Foreign Policy for the 1970's: A New Strategy for Peace. A Report to Congress, 18 February 1970.

2. George S. McGovern, Toward a More Secure America: An Alternative National Defense Posture, Congressional Record January 19, 1972, pp E147-161.

3. Bertrand De Jouvenal, Futuribles, Santa Monica, RAND Corp, January 1965 (p-3045)

4. See for example: Davis B. Bobrow, "Political and Social Forecasting: Purposes, Critiera, and Recent Emphasis," Assessing the Future and Policy Planning, Gordon and Breach, (to be published):Herman Kahn and Anthony Weiner, The Year 2000--, New York, Macmillan, 1967, pp 398-413; William L. Swager, "Strategic Planning I: The Roles of Technological Forecasting," Technological Forecasting and Social Change, 4 (1972), pp 85-99.