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FINAL REPORT

Net Assessment of Future U.S. Military Capabilities in Relation to Various Specific Types of Objectives

by Max Singer

submitted to:

Net Assessment
Under Secretary of Defense for Policy
the Pentagon
Washington, D.C.

May 19, 1997

The views, opinions, and findings contained in this report are those of the author and should not be construed as an official Agency position, policy or decision, unless so designated by other official documentation.

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This report contains an abstract plus five parts:

1. "Bringing a Mission Approach to the DoD"
   Report by Max Singer submitted to Andrew Marshall

2. "Proposal for a Set of Operational Groups for Unorthodox Missions"
   Paper by Max Singer submitted to Andrew Marshall

3. "Some Missions for Net As essment" Memo by Max Singer
   submitted to Andrew Marshall

4. "An Arms Control Case for Missile Defense and Implications for Systems Choices"
   Paper by Max Singer submitted to Andrew Marshall

5. "On Understanding Russia" Memo by Max Singer submitted to Andrew Marshall.

ABSTRACT

Considering the adequacy of future U.S. military capabilites requires analysis of their performance against the enemy forces that they can be expected to face. More important, it requires analysis of their performance in relation to the requirements of the situation in which they will be needed and the task they will be called on to perform -- in the face of enemy capabilities and tactics. Such analysis is unusually complex because of the wide variety of potential needs for U.S. forces over the next 10 or 20 years.

The accumulation of technological developments over the last 20 years, and the continued improvement that can be expected in technologies with broad military relevance, gives strong reason to believe that some potential future military conflicts will involve qualitatively different military interactions -- which will amount to a revolution in military affairs, that is, new operational approaches to accomplishing military purposes. These potential RMAs offer both opportunities to the U.S. to achieve increased effectiveness and new dangers from enemies who would not present significant threats without an RMA.

Because of the low probability during the next 20 years of conflict with a peer competitor, a major share of military planning needs to be devoted to situations in which our forces are not called on to fight "main battles" with competitive forces. (Main battles are engagements in which the immediate purpose of each side is to destroy the other side's force.) That is, we need to devote a large share of planning to situations in which either we have a main battle against a large 3d or 4th rate forces, or we have some other kind of conflict than a main battle. In particular, we can anticipate situations in which the difficulty of the military task comes not because the enemy has high combat capability but because the political situation creates an especially demanding task.

In such challenging situations the adequacy of our capability that needs to be evaluated is our ability to perform a particular mission within specified constraints against the resistance of the particular enemy, who may have advanced equipment and use new operational approaches to prevent us from achieving our purposes.

The first report shows how this analysis should affect the basic pentagon approach to planning and programming -- the use of a "mission orientation." The second report suggests an organizational arrangement for getting many of the benefits of a mission orientation without major changes in DoD structure or procedures -- adding a small number of mission groups on top of the regular structure. The third item applies the same concept to the mission of the Office of Net Assessment.

The fourth item addresses the possibility of trying to shape the distribution of military forces in the world by changing incentives. Specifically, it suggests the possibility of heading off the spread of long-range military capabilities by using expectations of growing defensive capability to increase the cost of long-range offensive forces for those considering building such forces in the future.

And the last paper is an interpretation of the observed facts about Russian military programs, and the nature of the threat that they are likely to present over the oming generation. It emphasizes the unlikelihood that Russia will achieve a government capable of providing the resources and maintaining purpose for a susta ned major foreign-military challenge.

Bringing a Mission Approach to the DoD

By Max Singer, The Potomac Organization

December 1, 1995

I. SUMMARY

This paper outlines a proposal to use a temporary commitment of less than 100 individually assigned officers, 2-3 battalions of regular forces, and appropriate supporting efforts to accomplish the following goals:

1. Sharply increase DoD's current ability to accomplish special missions*.

2. Increase DoD's ability to evaluate and plan and prepare for potential special missions in the future.

3. Increase DoD's ability to make a sound decision about whether and how to change the balance in DoD away from almost exclusive priority for main battles, toward greater emphasis on preparing for special missions.

4. Improve DoD's understanding of the impact of new and future military technology and ability to respond to the RMA.

The proposal is to create seven temporary, experimental Mission Groups and a Mission Coordinating Group under the Chairman of the Joint Chiefs to makes plans and preparations for selected special missions. The Mission Groups would have the charters and composition presented in the paper.

* "Special missions" are any military tasks that may have to cope with violent attack or military resistance, other than "main battles." "Main battles" are military engagements where the objectives of the military forces are to put each other out of action. Each "special mission" is comprised of an objective and a set of constraints.

Bringing a Mission Approach to the DoD

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II. ARGUMENT

Most potential uses of U.S. military force in this generation will not be main battles in which U.S. and enemy forces work to destroy one another. They will be special missions where the U.S. force is called on to achieve a specific objective against the potential resistance or counteraction of enemy military forces, and in which the constraints on U.S. forces may be as important as their objective.

While in most cases the U.S. will be facing enemies with greatly inferior forces, so that our ability to achieve military victory is not in doubt, the political requirements that will define the missions for which our forces might be needed will make these missions at least as difficult to accomplish as victory in combat against a strong enemy force. And even low-grade enemies may well have pieces of the most advanced military technology available to help them thwart our forces.

The mindset required to plan and command special missions is very different than that appropriate for main battles where the object is to destroy the enemy force. Commanders whose primary concern is main battles will rarely be able to conceive and execute special missions calling for radically different mindsets. Many special missions are too different to be lesser included tasks -- even though the amount of fighting power needed will be small compared to that needed for main battles -- and they are not Special Operations as that term is used. (The general argument about the need for a mission approach is considered in "Strategic Basis for DoD's Program and Policies Concerning Force Design," a report prepared by this author for OSD Net Assessment, dated January 15, 1995.)

DoD's ability to accomplish many special missions -- defined as specific tasks subject to specific sets of constraints -- will depend more on the quality of thought and preparation devoted to the specific mission than to the size of forces and level of equipment available. The necessary special thinking must be applied both in advance -- in organizing forces and command structures and in developing doctrine and training -- and when the mission is called for -- in preparing and executing specific plans.

Many special missions require very small forces, and many others can be accomplished by regular forces with special training or other advance arrangements that are quantitatively small although essential and challenging. Therefore it is possible to gain a major share of the potential ability to accomplish special missions without making a fundamental change in the structure or operations of the DoD; even though the basic approach to preparing for special missions is fundamentally different from the current approach to building forces.

Furthermore, the arrangements necessary to gain an important increase in our ability to accomplish special missions can be

made on an experimental basis, without a commitment to a permanent change in force structure, doctrine, or chain of command.

The paper proposes to create a Mission Coordinating Group and seven Mission Groups that are formally study groups reporting to the Chairman of the Joint Chiefs, with a total strength of less than 100 individually assigned officers (10-15 of flag rank) plus 2-3 battalions of regular forces, and appropriate supporting efforts by other forces.

Each Mission Group would have a commander who would be responsible for recommending programs to enable existing forces and existing major equipment to be ready to accomplish an assigned set of special missions. While initially the Mission Groups would not have authority to implement any program or command any forces outside their Group, five of the seven would be experimental-operational Groups directed to think of themselves as responsible for accomplishing the assigned missions themselves, primarily with the small forces assigned to their own Group. (The other two would be purely study-planning groups.)

III. LIST OF PROPOSED MISSION GROUPS AND MISSIONS

(experimental-operational groups)

Mission Group A: Asset Protection

E.g., protection of Russian nuclear weapons during local disorder.

Mission Group B: Damaging Low-grade Military Forces

E.g., Bosnian Serb military

Mission Group C: Compellance

E.g., attacks on governments

Mission Group D: Extended Operations in Unfriendly Populated Areas

Mission Group EF: Landing Missions

Mission E: Heavy Target Destruction
Mission F: Hostage Rescue and other landing missions

(study and planning only Groups)

Mission Group G: Demonstrative Military Control (of large area)

Mission Group HIJ: Asset Destruction

Mission H: Scalpel destruction
Mission I: Air force destruction
Mission J: Fleet destruction

IV GENERAL STATEMENTS ABOUT PROPOSED MISSIONS

Each of these missions is different than classical Special Operations (SO) in one or more ways. Normal SO are based on using surprise and/or deception to gain a preponderance of force at a precise place and time in an area where the enemy has an overall preponderance of force. If the enemy knows about the operation he can easily bring in enough force to defeat it and to destroy the SO force. The SO force takes a substantial risk of being destroyed, and is strategically expendable.

The missions discussed here are mostly in contexts where the enemy cannot or does not want to have a main battle with our forces. He either does not have strong forces; or they are too far away to threaten the mission -- against our air power; or we have the ability to reinforce if the enemy tries to bring larger forces to interfere with the mission. Therefore strategic secrecy and surprise are not the central feature. On the other hand, in most cases we cannot undertake the mission if our forces are subject to substantial risk of destruction. If the mission force may be endangered there have to be solid plans to defend or extract it safely. Furthermore each of these missions include significant specific political constraints and/or goals.

V. PROPOSED MISSION GROUPS AND MISSION COORDINATING GROUP

Each Mission Group would have authority to make plans and organize and operate itself, within its charter, with minimal approval by external authority, for about 2 years. (The main guidance to the Mission Groups would be their assigned missions, the definitions of which include constraints.)

Since the Groups are experimental units testing a different approach to developing plans and doctrine, they would be entitled to think for themselves. There would be little point to creating the Mission Groups if they were under the direction of, or had to conform to, existing planning and doctrinal authorities.

While the Mission Groups would be formally without external authority, their charters would require that they make plans, and prepare themselves, as if they would be used in combat. The Joint Staff would evaluate the plans and preparations made by the Mission Groups, in most cases by running competitive exercises, to give a basis for a decision whether the Groups' plans and preparations would be adopted as DoD plans, and whether the regular forces would implement their parts of these plans. This arrangement gets the benefit of independent thinking by officers in a position to take a broad and responsible point of view without having to take authority away from regular commanders, or to give authority to untried units.

The success of this proposed program depends on the Joint Chiefs' and the Chairman's commitment to it, and on the quality of the officers assigned. The program will only work if potential member of the Mission Groups, especially commanders,

believe that top military leadership see the program as highly important to the DoD. The officers of the Mission Groups need to be among the best officers there are, particularly the most imaginative, and open-minded. Their success depends on taking personal responsibility for their missions -- so they will learn and do whatever is necessary for success. In addition to first-class professional backgrounds, they have to have the good judgment necessary to reach sound independent conclusions and the determination and inventiveness required to implement them.

A. Experimental-Operational Mission Groups
(Mission Groups A, B, C, D, and EF)

These five proposed Mission Groups would be importantly different than ordinary study groups. Their Commanders must think and be driven as if they were not just studying the missions, but are getting ready to execute missions and to take responsibility for them. (Of course if the mission does arise while the unit is still experimental it might not be given the assignment of executing it).

These five Mission Group commanders must feel that they have total responsibility for all aspects of their mission. Anything a Mission Group commander cannot do with his force he is responsible to arrange to have done. He has to act as if the SecDef is going to say to him: "what can we do in these circumstances?" and he will be expected to answer, "this is what I can do and this is what I need, and I am ready to do it and have thought of everything and will take responsibility for success."

B. Pure Study-Planning Mission Groups
(Mission Groups G and HIJ)

The missions of these two Groups would always be executed entirely by regular forces. Therefore these groups would never be responsible for executing a mission. They would be an alternative source of plans and of mission thinking. If one of their missions were undertaken part of the Mission Group would probably be temporarily assigned to the responsible headquarters to assist in planning, as needed.

C. Transition Principles for Mission Groups

The charter of each Mission Group would have a limited lifetime -- mostly 2 - 3 years. Each group would make recommendations about whether and how it might be made permanent Each would also make recommendations about how its value can be tested -- in most cases by competitive exercises.

The Mission Coordinating Group (MCG) (see below) would work with the Director of the Joint Staff to decide what exercises and other review procedures should be used to evaluate the proposals of the Mission Groups.

Finally the Chairman of the Joint Chiefs would make recommendations to the Secretary about possible permanent charters for Mission Groups, or for a broader application of the mission approach to military organization and planning.

D. Tasks of Each Mission Group

(i) Mission Planning

The Mission Groups will make plans for carrying out their missions in various scenarios -- either to be implemented by their own forces or with other forces that might be required.

Each Mission Group's charter would specify one or more scenarios and the Group would have the responsibility for figuring out how the DoD should respond if asked about the possibility of carrying out such a mission, and how the mission would be carried out if it were assigned. The Groups would also develop other potential scenarios.

The planning process would include intelligence, logistics, tactics, doctrine, equipment analysis. The Mission Group would coordinate with regular commands to provide for intelligence, transportation, air cover, and other necessary external support, and to develop effective coordination procedures.

The Mission Group would prepare a report for the Joint Staf containing recommendations about the missions in its charter. I the recommendations are adopted other elements of the DoD would be instructed to take appropriate preparatory measures.

(ii) Development of Experimental Units

At the same time, the Mission Groups would design and experiment with the composition of a permanent special unit for performing their missions when needed. (In the case of Mission Groups G and HIJ the permanent unit would be a study and planning unit, not an operational command.)

It would organize itself, and operate, to the extent that it has the resources, according to the design it proposes. Thus the Mission Group would be an experimental version of the unit that it proposes.

(iii) Preparing to Execute Missions (except G and HIJ)

Each Mission Group would organize and train itself, and make other necessary preparations to be able to implement the plans it proposes -- with appropriate support as specified from other units.

(iv) Evaluating the impact of new and potential technology on the assigned missions.

Each Mission Group would seek to apply the RMA to its

own missions. It would evaluate potential use of new technology and operating concepts to accomplish its missions, and potential enemy uses of new or old technology to interfere with its missions.

E. Additional or Alternative Role for Mission Groups

The Mission Groups might be used in designing games and exercises for regular forces and for educational and training programs, and/or to play the Red Team in such games and exercises.

This might be a desirable compromise function and justification for missions that are controversial. It would serve as a method of communication between the Mission Groups and the regular forces, and would make some regular games and exercises more effective -- as well as providing an additional challenge to the Mission Groups.

F. Operating Principles for Mission Groups

Of course, as is well known, all special units should be organized so that they can achieve the following strengths:

-- specialized skills and training
-- unit cohesion motivation, traditions,
-- institutional memory building on experience
-- continuous scenario and political analysis,
-- continual doctrinal and special equipment development

which are obtained by:

-- unity of command
-- substantial tours of duty with unit
   4 years for principal officers
-- good career path
-- short chain of command from unit to Joint Chiefs
-- strong authority for lateral coordination and consultation with other parts of the military.

G. Intelligence

Intelligence drives most special missions. The familiar intelligence needs are for precise target information and information about enemy forces, especially air defenses. An important dimension of intelligence will concern the quality of enemy forces, because that will often be equivalent to a factor of three or ten difference of quantity.

But the critical intelligence needed for special missions is about local political, cultural, and psychological factors that can shape the entire mission. There are no standard questions. The mission planner needs to know anything about the local situation that can be used to achieve the purposes of the mission.

The mission commander can never have all the information he needs, and he cannot rely on the information he is given, whether by government intelligence agencies or outside sources. Like any military commander he must use his best judgment with what he has. The emphasis here on the importance of the commander actively seeking the information he needs from a variety of sources is not meant to imply that he can have confidence in the information he gets, or that he can get all that he needs.

Almost always the enemy will have some unusual weaknesses, or there will be something or someone in the environment that can be used to solve some of the mission's problems. And often there will also be unusual dangers created by special local features. The intelligence task is to learn the special local characteristics that can be used to make the best mission design, plus any special features that should influence the detailed arrangements for accomplishing the mission.

For instance, it may be known that a key person who is normally hard to find spends every Tuesday night at his mistress' house. Or there may be something like the fact that all of a key component of England's naval explosives were for many years kept at two lightly guarded warehouses (until Winston Churchill, then First Lord of the Admiralty, found out about it). For almost all of the kind of countries in which we might need special missions there will be groups in the population that will be ready to help if we know who they are and what their problems are.

Generally special missions grow out of crises that have been internationally recognized for months or years. Commanders of Mission Groups will be able to begin studying local conditions from the point of view of their potential mission long before they are called to act. They will be responsible for considering possible scenarios for their mission in connection with any ongoing crisis.

In addition to learning about the general environment, the Mission Group can talk to scholars, business people, and others who work in that environment to seek ideas for accomplishing the mission. Some of the Mission Group will sometimes even be able to travel informally to the area to become familiar with the terrain and culture and to make useful contacts. Certainly they will have a chance to read background materials, perhaps to learn the local language or at least to establish relationships with effective interpreters.

The commander must take an active and practical approach to intelligence, figuring out what he needs to know and where it can be obtained, seeking information from many sources, and applying his own judgment to evaluate the information he is given. He must be humble enough to recognize the inevitable uncertainty, and confident enough in himself to take an independent view of what he is told by official authorities or academic experts.

The result should be that by the time policy makers begin active consideration of a possible mission there should be at least a small group of officers who are familiar with local conditions, have good contacts to get other information, and who have been thinking for months about possible inventive ways to accomplish their mission, and about all the difficulties and how they may be overcome.

Naturally the central part of the Mission Group's effort to get the information needed for mission planning is work with U.S. intelligence agencies. Here too there will be much gain from the Mission Group's focused interest well in advance of need for the mission. The Group will have established relationships with the relevant intelligence specialists, will have discussed the mission's possible special needs, and will have had several iterations of reports and queries, before they have to make a detailed mission design. But on political and cultural factors the Mission Groups should develop informal relationships with other sources of intelligence as well. When active planning for a particular mission begins the Mission Group should have connections to or relationships with locally informed people who can become temporary supplements to the Mission Group.

All of this focussed intelligence effort depends on there being a Mission Group continually in existence with the focused responsibility for thinking of and designing a particular kind of mission wherever that mission may be needed. And the Mission Groups must be assigned strong officers who are given personal responsibility for results -- that is, whose role is to get the job done, not to process information for a system.

The result should be that in any developing crisis situation the Joint Staff will be able to evaluate and present to policy makers a variety of potential special missions that might be useful, including possibilities that might not be obvious, not just the kind of action suggested by general military planning principles.

H. This Is NOT a Recommendation to Undertake These Missions

Assigning a mission to a Mission Group does not imply a judgment that that mission is feasible or prudent. Some missions need to be studied because they may be tempting to political authorities, and well-grounded specific objections will be needed if they are proposed. Some missions that are generally impractical may be prudent in limited special circumstances, which can best be understood and articulated by a commander who has been assigned the task of determining how the mission would best be done if it were ordered. In other cases a Mission Commander may be able to develop a prudent way to accomplish a mission that by normal analysis would be either imprudent or impossible.

At any rate, the proposal is that officers be assigned the task of figuring the best possible way to accomplish a variety of

VI. SPECIFIC MISSIONS AND MISSION GROUPS

Mission A: Protect nuclear weapons from seizure by small groups
(an example of an Asset Protection Mission)

Objective

Nuclear weapons (or similar critical material) in a foreign country are to be protected against defecting small units, bandits, civilian gangs or crowds, or small military units. (In other scenarios the protected asset might also be small groups of people -- e.g., Americans, critical local personnel, or small groups of innocents.)

Generic Scenario

The local government doubts its ability to protect some of its nuclear weapons (or similar assets) located at dozens to a few hundred sites. It invites, or will accept, foreign protection of the weapons until order is restored -- presumably with a promise to release the weapons to the local government on request. (Or temporarily there may be no national government.)

The primary scenario is the one described above, involving a breakdown of government in part or all of Russia and a need to safeguard Russian nuclear weapons. This scenario would require action at as many as several hundred sites (although after a while it might be possible to consolidate the weapons at a smaller number of sites).

Other scenarios would include rescue efforts for religious or ethnic minority groups, or political refugees, in danger of being slaughtered by mobs; or nuclear or other weapons of mass destruction in other countries than Russia; or American citizens endangered in violent disorder.

The defining characteristics of the mission are:

a) No fighting against a national military force. (Either authorization by national government or absence of national government.)
b) Friendly target -- no fighting to establish position.
c) Potential defensive fighting against small units -- threat to mission does not include air or missile attack.
d) Objective is to protect a small area, or particular people or things. (Does not include protection of a city.)
e) Numerous simultaneous sites.
f) Each site isolated from main U.S. forces and bases.
g) Probable requirement for rapid deployment; mission may extend for weeks or months.
h) Potential use of local forces or civilians to support mission.
i) Possibly delicate diplomatic situation and need for on-the-spot political decisions at particular sites.

special missions, such as the ones described here, each of which is defined partly by the constraints within which it must be accomplished. Implementing this proposal would not be an endorsement of the missions.

The missions described in this paper are intended to be examples. The main point is the idea of creating Mission Groups that have the kinds of roles and responsibilities described. The list of particular missions is secondary -- they can be replaced by other missions.

I. Mission Coordinating Group

The whole set of Mission Groups should be part of an overall Mission Coordinating Group (MCG) that is commanded by a senior Navy flag officer and has only a few personnel apart from the Mission Groups.

The Mission Coordinating Group and its commander should not have responsibility for the substance of the Mission Groups' work, and should not have authority to approve the plans or doctrine produced by the Groups, because the main points of the Mission Groups are to have diversified sources of thinking, and for the same group to have responsibility for planning and execution.

The Mission Coordinating Group's main function would be to represent the various Mission Groups to other elements of the DoD. (The commander of the MCG would be, in effect, the godfather for each of the Mission Groups.)

The MCG would also be responsible for the overall concept of having a set of independent Mission Groups. It would review the work of the Mission Groups, and reactions from other elements of DoD, and make recommendations about whether the overall system should be changed, terminated, or extended. It might also propose additional Missions.

The MCG might also be used to select and recruit officers for the Mission Groups, and would be a point of contact for administrative matters, and to review plans and doctrine for form and completeness. (In other words, the MCG could tell a Mission Group commander that he needs to deal with some point not covered by his plans or doctrine, but could not tell him that he was wrong in the way he had decided to deal with it.)

Environments

-- Civilian disorder. No reliable public services.
-- Roaming bands of armed civilians or soldiers up to company size, some with mortars, AT missiles, etc.
-- Potential availability of friendly forces -- but not reliable.
-- Sites are mostly military bases or facilities, but some may be industrial or urban facilities.
-- Protection must be provided for weeks or months
-- Rapid initial deployment is required.
-- No national force resisting. No national air defense.
-- Sites may be a long distance from our forces' base. But local staging bases may be available.

Constraints

1. Reasonable use of force.
2. No large unit should be vulnerable to destruction.
3. Moderate friendly casualties.
4. We are allowed to consolidate weapons onto fewer and safer sites if they have to be protected for more than a few days.

Discussion

This mission does not place large demands on the fighting ability of the force; because it does not have to be prepared to fight a highly competent enemy, and it can be ordered not to resist if threatened by a clearly superior force. The primary challenges are logistical and a high demand for situational awareness and local political adeptness.

However widespread availability of tanks and people who know how to use them (in Russia and a number of other countries) creates a serious potential danger to small isolated units. Even a first-class light force can be quickly overcome by a small number of tanks working with a small infantry force if they have the training and discipline to work together properly. And such forces might try to take the American force sent to guard nuclear weapons hostage, even if our force, seeing that it couldn't defend the weapons tried to avoid battle.

While there are many ways that advanced technology can be used to protect or rescue small isolated forces, such a mission cannot be undertaken unless its importance is great enough to justify serious risk to at least some of the units inserted. The mission planners must recognize the vulnerability of the small unit at each site, particularly to even small armored forces, and must develop as many methods as possible to preventing its units from being captured or killed if attacked by such forces. Of course in some scenarios there will be few enough sites -- or other special circumstances -- so that we can put larger forces at sites where a threat from armored forces can be expected.

Mission Group A Asset Protection Missions

Composition

The experimental group would be commanded by an Army general officer with an AF officer as Deputy. The initial staff would include about 6-8 officers, an equal number of EM, and an attached foreign service officer. After a planning period of 6 months the group would be assigned an infantry battalion for two years. At the end of the 2 1/2 year period a decision would be made whether to make the unit permanent, on approximately the same scale.

Charter

Make plans for carrying out the mission of protecting valuable assets in foreign territory in various scenarios -- either to implement with its own force or with other forces that might be required.

The charter would specify one or more scenarios involving a potential need to temporarily protect valuable assets in foreign territory.

Presumably Mission Group A would be designed to be capable of serving as the core of a larger temporary force. Probably the force assigned to each asset-protection site would normally be at least a platoon. Therefore the unit could cover about 16 sites without augmentation. With augmentation by 3 more battalions it could send a full squad to each of 64 sites with 3 squads from the regular augmentation battalions. If more sites had to be covered squads would be split among nearby sites.

Each of the four company commanders would be capable of planning an overall asset-protection mission covering many sites, and each would have a partial specialization in a particular category of asset-protection missions.

Each platoon commander would be capable of planning and executing an asset-protection mission for a single site, and of planning and supervising execution for up to 10 - 12 similar sites. Each squad would be sufficiently trained in the doctrine and procedures so that it could quickly train and/or supervise 2 or 3 regular force squads temporarily assigned for a particular mission.

Thus the unit would include about 16-20 officers with actual or simulated experience in planning and executing asset-protection missions available to participate in mission planning and in improving the operation of the unit. It would also have some 64 senior sergeants with such experience. If the unit is made permanent Sergeants might serve 10 or more years in the unit to increase the institutional memory and maintain unit integrity.

Evaluation

About two years after Mission Group A is established the joint staff would run an asset-protection mission exercise for Mission Group A and for one or more ordinary units or commands that represent the way DoD would respond to such a challenge if no special unit existed.

Mission B: Inflict damage on low-grade military force

(i.e, a force that has no national headquarters and base structure that could be attacked, but which is armed with weapons up to medium artillery, and is organized in battalion or brigade commands)

Objective

Causing pain to a quasi-military force, and demonstrating the ability to cause more pain to the force in the future (in support of deterrence or compellence).

The most likely methods will be capturing or killing officers or men, and/or seizing or destroying military equipment or supplies. If the damage is to be inflicted by air power this mission overlaps with Mission H, Scalpel Destruction. For Mission B the emphasis is more on targeting issues, while Mission H has more emphasis on delivery problems -- although both missions deal with both sides of the task.

Constraints

1.) Low civilian casualties (e.g., less than 10% as many as military casualties)

2.) Very low U.S. casualties (e.g., less than 10 dead expected, less than 100 maximum, and less than 10% of enemy casualties)

3.) Operation must be completed in prescribed time; alternatives: (that is, three alternative missions)
   a) 2 days
   b) 10 days
   c) 50 days

4.) If local allies are used they must not be able to use the U.S. help to be able to commit atrocities against civilians.

5.) The action must demonstrate an ability to hurt the attacked force worse than that force can hurt friendly civilians (unless there is an expectation that perpetrators of crimes against civilians will be punished) -- to reduce the danger that the operation can be stopped by hostage-taking or retaliation.

6.) No two-night presence on the ground of more than a

squad. (We do not want to have a presence, nor to have protect forces or sites.)

7.) It is preferable to have a choice of acting either from the air or by inserting ground forces for short periods, depending on the political/psychological requirements.

Environment

1.) No local base available.

2.) Base available w/i 100 miles.

3.) Terrain may be:
a) jungle or forest
b) mountains
c) farms and villages
d) towns
e) open

4.) We have control of air
(but enemy may have light ground-air missiles)

Discussion of Typical Scenario

Our political authority wishes to issue an ultimatum to a group like the Bosnian Serb army/government and to back it up with an implicit threat badly to hurt the military force if it does not comply.

The enemy force is a low grade force, but it may have some state-of-the-art equipment. While the casualty ratio needs to be 100-1 in our favor, or at least 10-1 if things go badly, there is no objection to our spending much more than the value of what we destroy. We can use a carrier task force and squadrons of planes and satellites to destroy a dozen mortars and kill a few score of troops. We can choose which part of the enemy force to attack, and we don't have to defend anything except ourselves against the enemy force. But we have to demonstrate the ability to increase the harm to the enemy enough to deter him from protecting himself by threatening neutral or friendly targets. (That is, in Herman Kahn's term, we have to have "escalation dominance.")

Often the kind of force this mission will target can be destroyed as a military factor by putting the leadership structure out of action, after which the force "melts into the population," which may be a perfectly satisfactory outcome.

We do not have to inflict the desired damage immediately, or in a single blow, but we do have to be able to do it in a reasonably short campaign (days or weeks).

The variation from scenario to scenario for this mission will include variations in terrain, in the exact character and quality of the enemy force and its equipment, and in the extent

to which the enemy force is able to deploy itself among or near innocent civilians.

An important requirement of this mission is that our force achieve a strong degree of psychological dominance over the enemy. The enemy troops and command must be made to feel that they can be damaged virtually at our will and without real cost to us, and that our forces are invincible.

In some circumstances using air power to damage the enemy will be politically and psychologically inappropriate, while the use of small ground forces will be suitable. (In other circumstances the opposite may be true, which is why we should prepare both capabilities.)

One reason why the political/psychological objective can sometimes be best achieved by use of ground forces, is that it is less humiliating for the enemy to be vulnerable to multi-million dollar aircraft with "futuristic weapons" than it is to be helpless before ordinary troops fighting on the ground with ordinary weapons (even if those troops depend on air support, and immense amounts of high technology for their effectiveness). Also the relationship may be politically more desirable if we don't use the impersonality and disconnection of an air strike. (This might be desirable, for example, in attacking a primitive African tribe.) This psychological objective is also enhanced if our operation seems "elegant" -- rather than massive and messy.

The elegance and invincibility may also be needed for domestic political reasons. If we use our forces for this kind of mission there must be no doubt that militarily we are overwhelmingly successful -- even though the operation is on a very small scale. There will be public support if it is clear that the enemy is badly hurt and we are not, and that we are in absolute control of the situation. (Of course these are extremely demanding requirements, but there will be situations in which it will not be politically possible to use our forces unless we can meet such demanding requirements.)

Sometimes the operation will be more politically feasible if it can be conducted with few troops engaged. Because this adds to the elegance, it reduces the extent to which it looks as if we are a Goliath pushing mall people around, and it increases the believability of the possibility that we will do such things on other occasions. In connection with any of these effects it doesn't matter that the number of troops engaged is only a small fraction of the force committed -- for air support, logistics, back-up forces, etc.

We may be able to meet such stringent requirements only in very special circumstances. But if we act in those circumstances the enemy does not have to know that they are the only circumstances in which he is so vulnerable. In other words, we may have to choose our actions carefully to build and maintain a reputation for invincibility and untouchability.

Mission Group B Force Damaging Missions

Composition

The Mission Group B would be a staff of 8-16 officers, commanded by an army officer with an equal rank AF officer as deputy, and including at least one naval air officer, one marine officer, an intelligence representative, and one foreign service officer -- plus enlisted and perhaps civilian support.

After an initial planning period the Group would be assigned between a company and a battalion of regular infantry troops. Air units would need to be assigned to the Group only for brief periods (perhaps a few weeks at a time).

Charter

The Mission Group would be responsible to develop proposed plans, doctrine, and tactics by which regular army, AF, or Navy units could carry out force-damaging missions with modest levels of specialized training.

It would also be responsible for creating the capability for conducting such missions itself, up to the size of force assigned. This force would be specially trained and exercised in such missions, including work with temporarily assigned air units.

The Mission Group would develop detailed plans for a series of possible missions. It would develop special doctrine and tactics for these missions -- and possibly some small pieces of special equipment. It would train and exercise the troops to be able to use the special tactics and doctrine. Probably no special techniques or weapons would be necessary for missions limited to air attacks. But for ground attacks the Mission Group would develop special procedures for air/ground coordination. It would also develop intelligence coordination procedures and techniques.

The Group would be assigned an AF unit for long enough to develop, test, and exercise such special procedures. The AF staff component of the Group would also prepare plans for AF (or naval air force) missions and for the air support and logistics for ground missions.

Mission C: Compellance

Objective

To be demonstrably capable of acting against a government in a way that they cannot withstand or survive. That is, to be able to force a government to yield by making a threat that they cannot absorb -- normally the destruction or overthrow of the

government. The compellence mission is more fully discussed in "Using Military Force to Compel Governments," Sept. 22, 1993, a paper prepared by this author for the Office of Net Assessment.

This mission may often be an example of either a Scalpel Destruction Mission or a Landing Mission. It is defined as a separate mission because it is of special importance and has unique requirements. For the compellence mission the primary problems are political -- understanding the appropriate targets, and properly reflecting political and psychological factors. The other two missions (F and H) require a greater share of attention being given to the physical probl ms. The Compellance Mission is focused primarily on what we can do or threaten to do to a government to compel it do something, whether it will be done from the air or the ground.

Constraints

1. The harm to the group of people in control of the government must be large compared to the harm to the country or the people in general.

2. The threat must be one that can be continued.

3. It is preferable that part of it can be delivered and part kept as a threat, or that the threat can be demonstrated.

4. Fairly fast implementation is desirable.

5. Very low U.S. casualties expected.

6. Various fundamental political constraints and requirements that do not strongly affect military planning.

Environment

U.S. can achieve complete control of the air over 8,000 ft. (But enemy may have shoulder-fired ground-air weapons.) Bases available within 500 - 1,000 miles of target government.

Mission Group C Compellance Missions

Composition

The Mission Group would be a small staff (5-10) of officers and civilians combining operational, technical, and political/diplomatic expertise, and perhaps a small contractor component.

If the Group decides that ground forces could be used for the mission it would be assigned up to a company of regular infantry for the experimental development of doctrine, tactics, and techniques, and to carry out such missions if ordered to do so.

Charter

It cannot be assumed that compellence is possible. The Mission Group would be responsible to study possible approaches to compellence, and to propose the best measures they can devise for compellence in a variety of circumstances.

The proposed measures can use either standard forces and equipment (if possible) or special equipment and specially trained forces. For each compellence approach developed by the Mission Group it should describe the circumstances in which the approach can be used, and all the requirements for creating the necessary capability (equipment, doctrine, training, etc.).

If any proposed compellence measures are later approved by the Joint Staff, the Mission Group may be expanded to gain the capability for further development and perhaps implementation of such measures.

Mission D: Extended Operations in Unfriendly Populated Area

This is an unattractive mission. It involves keeping a military force in an unfriendly area for an extended period of time, presumably in support of some political purpose such as providing government, or protecting a government, or protecting a minority (or majority) population, or whatever.

This is an multi-purpose mission group. The common features of the class of missions are that they all involve:

(i) extended U.S. military presence in populated areas not controlled by a friendly government (therefore a need to be able to protect personnel from local civilians and enemies who hide among them);

(ii) need for very strong political intelligence so that local assets and special techniques can be used;

(iii) probably a need to work with many personnel in addition to US military personnel

(iv) diplomatic and political skills

(v) need to hold casualties on both sides to a low level.

(vi) in some cases the force will also have to provide emergency medical treatment and temporary infrastructure for the local population.

This mission is much more burdensome than Mission G, which just requires military control of an area, and which is a short-term mission. For Mission D the force must protect something other than itself, and will not be able to protect itself

entirely by movement and isolation. On the other hand, the Mission D force does not have to be self-sufficient, it can build capability after it is deployed and may have months before it has to be at full capacity.

The major special element of this mission is that it is likely to involve working with local or non-military personnel and perhaps organizations. The tactics and even strategy of the mission is likely to center on political and other local factors. Success will depend on getting as much benefit as possible from the local factors that can be used to give leverage to the Mission.

For example, the Mission Group might establish procedures and doctrine for hiring, training, and supervising local police personnel, or new U.S. or third party personnel, in case the mission requires maintaining law and order in a populated area for an extended time.

Mission Group D Extended Operations

Composition

The Mission Group should be commanded by a flag officer (probably with two or three stars), and include 10-12 officers, senior representatives of the intelligence community, a foreign service officer, and civilian personnel, plus a group of EM. It should also include several companies of regular forces, some of which might be MP.

Charter

The Group's specific tasks would be to:

(A) Prepare doctrine, tactics and techniques for operating in populated areas by use of:

(i) political and environmental sensitivity which secures local allies and sources of information;

(ii) careful operational practices to reduce exposure to civilian enemy actions. (Normal military measures of self-protection are not suitable for extended operation in areas with large numbers of civilians where forces cannot be kept in sizable military units but must work individually and in small groups.)

(B) Prepare techniques, doctrine, and other requirements for creating a system to use local, foreign, and U.S. civilians, to perform functions necessary for various missions in countries with limited governmental capabilities.

(C) Develop scenarios in which such extended operations might be required and determine the requirements of success for various possible objectives. For each scenario propose techniques for dealing with the primary problems, and prepare to

be able to accomplish the appropriate mission.

(D) Determine how necessary political intelligence can be obtained, on the spot and in advance, through existing intelligence sources and in other ways. Provide techniques for teaching environmental sensitivity to officers assigned such missions.

Mission E: Heavy Asset Destruction

Mission E involves landing people and small equipment in enemy territory to destroy special targets. It is much like Mission H except that the targets are too hard (or in other ways unsuitable) for destruction by air attack with regular munitions and tactics. Some North Korean nuclear facilities may be examples. Also targets where the intelligence is not good enough to allow destruction from the air while limiting collateral damage. Also Landing Missions may deliver a politically more desirable message.

The extra difficulties of the landing mission compared with the asset destruction mission -- more vulnerable planes, need to land and remove the landing group, the need to defend the landing group until they have been removed -- will mean that landing missions are usually feasible only against countries with weak air defense capabilities, or targets very near the border, or scenarios in which we can massively suppress air defense or afford to risk substantial casualties.

The central problems of landing missions are: (i) what the small landing party can do, and (ii) how it can be protected (landing, leaving, and on the ground).

Landing missions, like normal SO missions (and unlike most of the missions discussed in this paper), may depend on speed, surprise and deception, to protect the landing force against the danger of forces being gathered to attack it. But in other cases it will be unlike SO, because it will be possible to protect the landing party by reinforcement, air power, or deterrence, so it will not be vulnerable to enemy reinforcement and will not depend on surprise or deception.

Unlike Mission H, the Landing Missions are almost completely outside normal AF or other regular force operational programs.

Mission F: Other Landing Missions

Rescuing hostages or capturing individuals from unfriendly countries would be examples of other landing missions. All landing missions have the task of getting a force in and then out safely. With hostage rescue or capture missions the number of people to get out is larger than the number going in, perhaps much larger. Hostage rescue has the unique task of preventing

the enemy from killing the hostages if he has time to do so when he knows they are about to be rescued. Other landing missions will each have their own unique requirements.

Mission Group EF

Composition

The Mission Group should be commanded by a general officer (probably AF), and should include about a dozen officers, including naval and marine officers, plus both technical and political civilian experts, and intelligence community members. It also should include a company of regular infantry.

Charter

The Mission Group will develop plausible scenarios in which landing missions might be used. Also missions near borders or shores where the "landing party" might come by land or water, although protected by air cover. These would be missions that could not be accomplished entirely from the air, or in scenarios in which air attacks are precluded for some political or psychological reason.

For each scenario the Mission Group will make plans for landing missions that it is prepared to carry out itself (with specified support from other elements) to accomplish appropriate specified objectives, subject to specified constraints.

The Mission Group will test each plan it believes to be feasible with realistic field exercises before submitting any report.

The Mission Group report will describe scenarios and plans that the Group is prepared to carry out. The Joint Staff will review this report, decide for which scenarios plans should be generated. Then it should assign one or more regular commands responsibility to prepare plans for these scenarios. Exercises should then be run to choose between the competing plans.

Mission G: Achieving military control of large area.

"Military control of an area" is defined as having military forces deployed in the area that can move anywhere in the area (but not necessarily into cities), and defeat any other forces in the area that try to attack or to hold any territory, without danger of military defeat or substantial attrition. It does not mean being able to control civilian populations; but it does mean being able to prevent any other military force from being able to control civilians in the area.

This mission is different than controlling the population of a populated area. Therefore it can be used either for an extended time in an unpopulated area or for a limited time (e.g.

weeks) in a populated area. If conducted in a populated area, the mission requires protecting the force from the population (primarily by avoidance) without large scale damage to civilians or facilities.

Constraints

1. Minimal casualties.

2. Modest civilian casualties.

3. Limited preparation time.

4. No more than 1 division deployed (and one in reserve).

Discussion

This mission is the closest to a standard military operation and is very scenario dependent. The scenario will determine (i) the location and therefore the terrain and the logistics problems, (ii) the enemy capabilities, (iii) preparation time allowed and length of control time required, and (iv) special political requirements such as allied cooperation.

The mission involves three kinds of challenges: the logistics (including that for necessary air support); the ability to defeat or interdict enemy military forces; and politically acceptable measures to protect against possible civilian or guerrilla efforts to attrit the force.

Example

A sample of this mission would be a hypothetical "Desert Inchon" operation like that suggested before Desert Storm. This operation would have used one or two US armored brigades and perhaps a battalion of motorized infantry, with a logistics base at Badanah-Ar'r and a 650 mile logistics line to Daharan (mostly along the road used for the Trans-Arabian Pipeline).

From Ar'r the mission force would have moved about 100 miles NE along a road, through empty and essentially undefended territory, to the initial objective of Nukhayb (pop. <3,000 ?), which would be occupied by the motorized infantry. An optional second phase would move most of the armored force about 80 miles N along the same road, through empty and essentially undefended territory, to Road Junction Q (RJQ), which is about 140 miles W of Baghdad on the main road from Iraq to Jordan. From the line Nukhayb-RJQ the force would have militarily control of 15% of the land area of Iraq, including all routes between Iraq and Jordan and all of the area within SCUD range of Israel, Damascus, and Beirut. (This area has virtually no agriculture, and the only town -- apart from the border settlement of Trebil -- is Ar Rutbah, with a population of some 5,000.)

Since the Iraqis had no substantial military forces in the

area, this operation would have virtually no danger of incurring combat casualties. The US forces would at all times have been over 250 miles from the main body of Iraqi troops because they were committed to the KTO. Because of US and allied air power these Iraqi forces had no capability to move and sustain effective fighting forces over such a distance against U.S. air power. Because of US air power and superior operational and logistic capability, the US would be able to sustain more fighting power on the line Nukhayb-RJQ, 750-830 miles from Daharan than the Iraqi army could sustain 100 miles from Baghdad

For this operation there would be no significant problem of protecting against or controlling local population because the area is so sparsely populated. As in any situation where there are no continuous fixed lines there would be a potential guerrilla threat to our forces, but all the advantages would be on our side in this arena (except willingness to take casualties).

While such a Desert Inchon operation would physically be a ground maneuver, its feasibility would be based on US control of the air and the damage done to Iraqi capabilities by air attacks Therefore Desert Inchon is as much an extension of the air war as it is a major ground campaign. (The ground forces would probably use only a fraction of the munitions used by the air forces.)

Many parts of the world have large empty areas like Western Iraq, although many of them have terrain such as jungle which is much less favorable for maneuvering armored forces.

The purposes such an operation might serve include:

(i) to cut a country off from an ally or source of support (like Iraq from Jordan)

(ii) to prevent missile attack if range is critical

(iii) to threaten a capital (or other target)

(iv) to embarrass or delegitimize a government by showing that it doesn't control its own country

(v) to give an allied country an opportunity to occupy enemy territory

Note: this kind of maneuver can also serve a main battle function in situations where one of our objectives is to destroy the enemy force, because it can be used to attract enemy forces out of defensive and protected positions. The Israelis -- using reserve units -- have demonstrated that 100-1 casualty ratios are a reasonable goal in maneuver combat in open terrain.

Discussion

Why do we need a special Mission Group for such a standard

military operation? Because conventional thinking runs in different tracks. Also, usually this kind of maneuver is part of a conventional war centered on a main battle. Therefore work is not normally done on being able to conduct such an operation as a non-war mission with political objectives and constraints. The Mission Group will also increase the chance that the capability for this mission will be known at the right time and the possibility available to policy-makers.

Mission Group G

Composition

The Mission Group should be commanded by an AF general officer and also include an army general officer. Marine and naval officers should be included, as well as a foreign service officer or civilian foreign policy expert. Altogether the group need not include more than 6-8 officers and a few EM and would not need any attached forces.

Charter

The Mission Group would have the following tasks to accomplish in about one year:

(i) Develop some half dozen or more scenarios in which the military-control mission might be used (specific real locations with plausible political scenarios), and specify the basic force, time, and logistics requirements for each mission.

(ii) In response to order from Joint Staff develop preliminary plans for potential missions any time they seem as if they might be called for.

(iii) Develop proposed doctrine for military-control missions. The doctrine should have guidelines concerning force requirements in relation to terrain, population, type of enemy, time and distance factors, type of entry, appropriate command structure, etc.

(iv) Conduct paper exercises to test doctrine and scenario plans. Non-mission-group officers would play the red team in these exercises. Also some exercises would use the same red team against the Mission Group and against regular officers, each operating in the same scenario. (Later it may be decided that field exercises are needed also.)

Mission H: Scalpel Destruction of Assets

The mission is to destroy specified physical assets in enemy territory with very low collateral damage and very low risk to any US personnel, and without destroying enemy air defenses or air forces (unless they rise to try to intercept our forces).

While the primary method for this mission will be air or missile attack, the mission may also be carried out by clandestine units or by cooperation by a clandestine ground observer to guide air missions.

The three main features of the mission are: (i) the intelligence task of acquiring reliable information about the target and the air defense; (ii) the technical problem of penetrating and hitting the target; and (iii) the political evaluation of the benefits and the uncertainties.

The basic capability for this mission is very close to that required for one of the main AF (navy) missions. So the Mission Group would not work on the major equipment or primary tactics of penetration and weapon delivery. Since the AF (navy) already has the capability to perform many examples of this mission, the Mission Group's task will be to increase the range of cases where the job can be done. The special features of the mission which distinguish it from more normal combat missions are mostly differences of degree, not of kind:

(i) the possibility of only one or a few targets
(ii) the impermissability of massively attacking the air defense system first
(iii) possibly extreme requirements for accuracy and confidence and collateral damage avoidance (but not necessarily)
(iv) probable requirement of high confidence in avoiding losses to the attacking force
(v) possible requirement for unusual target intelligence

Whether the mission would be executed by the AF or the navy or both depends on the availability of base facilities, distance from the sea, timing, and possibly political advantages or disadvantages of CONUS, overseas ground bases, and sea basing.

Mission I: Air Force Destruction

This objective of this mission is to destroy a country's air force -- that is to reduce its capability by 3/4 or more for at least a year. The purpose is not merely to put the air force out of action to get control of the air but to eliminate most of the capability so that it must be rebuilt almost from the beginning -- except for personnel. This includes the destruction of airplanes, repair and service facilities, airport and base facilities, control systems, headquarters etc.

Potential purposes of such a mission are to weaken a potential aggressor, or to alter the balance of power between the country attacked and its neighbors. This might be combined with the purpose of gaining visible ability to have control of the air over the country (even though that purpose might be attained in a less destructive way). Also this mission can be a useful threat. For that purpose, a form of the mission would be partial

destruction of the enemy air force through measures that obviously could be extended to the whole air force.

The advantage of air force destruction is that it is a relatively quick and clean way to weaken a country that has well-armed enemies. Also the threat to do so may lead the enemy air force to insist that the government yield to the threat so that their force will not be destroyed.

Constraints

1. Requires ability to prevent retaliation (including retaliation against neutrals).

2. Very low civilian collateral damage.

3. May need to give warning.

4. Low U.S. attrition or losses.

5. May be spread over as long as 30-60 days.

6. Launching bases will be a long distance from border or at sea.

7. Be able to assign some targets to an allied force.

Discussion

Obviously this mission is heavily dependent on the size, nature, and location, of the target system and on its ground to air defenses. For some countries the mission is very easy, for others very demanding.

Even more than the Asset-Destruction mission, this mission is a variant on a normal air force (or Navy) mission and would be carried out by regular forces. The Mission Group's role would be limited to some scenario and planning functions.

Mission J: Fleet Destruction

This mission is parallel to Mission I, AF Destruction, for potential use against a country whose fleet is an important component of its military strength.

The target system for fleet destruction is likely to have fewer but harder targets, and almost all of them will be on or near a seacoast.

Mission Group HIJ

Composition

The Mission Group would be comprised of 6-10 officers

VII TOTAL PERSONNEL REQUIREMENTS

Together the Mission Coordinating Group and the seven Mission Groups would require:

10-15 General Officers
60-80 Other individually assigned officers
20-30 Government civilian or contractor professionals
60-80 Enlisted personnel
2-3 battalions of regular forces assigned (including officers)

From time to time other forces and staffs would need to be temporarily assigned to work with Mission Groups for exercises, experimental training, coordination, etc.

VIII CONCERNS ABOUT MISSION PLANNING

The Department of Defense is not interested in promoting military missions, and does not want to be thought of as encouraging military solutions to political problems. Part of DoD's function is to provide the information political leaders need to avoid the temptation to order imprudent missions. Superficially it would seem undesirable to create Mission Groups that would design potential military missions that otherwise might never occur to political leaders. But a prudent concern to prevent U.S. forces from being used unwisely is not a good reason for the DoD to abstain from the kind of preparations proposed here.

The depth of understanding of special missions that will be produced by the Mission Groups will provide sound and convincing bases for rejecting imprudent missions -- as well as creative measures for accomplishing what is possible. While the DoD is responsible for keeping U.S. forces out of danger when there is no well-conceived purpose for using them, it is also the DoD's responsibility to give the country's political leadership the option to accomplish any mission that could be prudently undertaken if reasonable measures had been taken in advance.

DoD wants to avoid having to say, "that might be a good idea, sir, but it is not a practical option without advance preparations that have not been made." Successes are valuable in many ways -- including creating a reputation that can enable the Department to discourage unwise commitments of U.S. forces. The Mission Groups will make additional successes possible -- as well as preventing unnecessary failures.

IX. THE THINKING UNDERLYING THIS PROPOSAL

The proposal is aimed at two targets simultaneously. One is to give existing forces a greater ability to accomplish the kind of difficult special missions which arise in the current world environment. The second is to circumvent the institutional obstacles which inevitably inhibit the thinking required to respond to a potential revolution in military affairs.

The link between these two tasks is that they both require a different kind of thinking than is required for the traditional and principal tasks of the DoD and the services -- one because of changes in the technological environment, the other because of special objectives and constraints.

Many military and other people who are asked what the DoD must do to respond to the range of recent and coming technological change have commented on the need to think in new ways, outside of existing frameworks. It is widely recognized that the dangers and the opportunities presented by new technology depend on how it is combined into new systems, used with new operational concepts and strategies, and by forces which are organized differently and have the appropriate new doctrine. The key feature of special missions is that they too require different kinds of thinking.

The problem of course is that large institutions -- perhaps especially large victorious military organizations -- have rarely if ever succeeded in doing and implementing the kind of new thinking most people agree is required. This is not because of military leaders' deficiencies; it is the result of inevitable institutional factors, such as the primacy of the urgent for top leadership, the need of large institutions to rely on well understood, long-lasting principles and traditions, and similar producers of rigidity.

The essence of this proposal is that it is device to enable the DoD to do the kind of new thinking it needs, while keeping its existing structure and practice -- which it needs to keep to do the bulk of its job, and which in any case couldn't be changed without years of costly turmoil. In other words, if you can't get an elephant to act like a hummingbird you may be able to get the advantages of both by getting the hummingbird to ride on the elephant's back.

The reason it is possible to have it both ways -- keeping the people and structure capable of responsibly managing a huge institution, and at the same time developing and implementing imaginative new thinking -- is that some of the missions for which new thinking is necessary involve very small forces and do not require developing large new equipment. Therefore it is possible to graft independent units (hummingbirds) onto the existing structure without challenging the system or taking substantial resources from anyone.

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Proposal for a Set of Operational Groups for Unorthodox Missions

Summary

Problems addressed by this proposal:

1. Developing Creative Plans for Peculiar Missions Requiring Unorthodox Operations

Many potential missions for U.S. forces in the future will require unorthodox operations using atypical tactics to meet unique political-military requirements. For many such missions success will depend more on the quality of the thinking used than on the adequacy of the force available. Success in many cases will only be possible if specialized advance planning has been done so that options that are different from normal doctrinal and procedural guidelines can be given adequate consideration. In other cases detailed advanced study of potential missions may make it possible to provide the command authority with better understanding of the costs and dangers of a potential mission so that unwise missions can be avoided.

2. Creating Additional Sources of Creative Thinking for New Operational Concepts Needed for the RMA

A revolution in military affairs requires new operational concepts as well as new technology. The regular planning system, which is optimized for existing forces and evolutionary changes, should not be relied on as the exclusive source of ideas about potential new operational concepts made possible by changing technology and political conditions. The DoD needs to develop multiple sources of thinking about new operational concepts. Groups that think about potential uses of new military technology in unorthodox contexts may be a useful source of thinking about the RMA.

Proposal:

Create a set of small Operational Groups, staffed primarily through contracts that provide retired officers and other appropriate civilian personnel, in a new unit under the Director for Operational Plans and Interoperability (J-7) reporting to the Office of the Chairman, to make contingency plans for various defined classes of peculiar and unorthodox missions. The plans produced by the operational groups would be tested by competitive exercises against the work of standard planning staffs. They would be different from the plans likely to be produced by existing staffs for the following reasons:

a) The individuals developing the plans would be directed to plan as they would if they personally were to implement the plans themselves;

b) The groups would have the advantage of specializing in particular classes of mission involving unorthodox requirements (without regard to geographic location);

c) The plans would not have to conform to standard doctrine, and would not be developed subject to a normal coordination process that limits inventiveness and unorthodox tactics and procedures;

d) The operational groups would include a wider variety of participants than standard planning staffs.

Description of Proposal

To implement this proposal the Chairman of the Joint Chiefs would direct the Director of Operational Plans and Interoperability (J-7) to establish a set of Operational Groups (OGs) staffed primarily by contract personnel under contracts to be managed by the J-7 and the DoD Office of Net Assessment.

The set of OGs would be overseen by a Chief of Operational Groups (COG) in J7, a flag officer with an established reputation for professional excellence and innovative practical thinking assigned on a full-time basis. The COG would coordinate with the DoD Office of Net Assessment.

The J-7 would determine where the COG should be located and which organization would provide the facilities, equipment and other administrative support required by the OGs, and would establish a procedure for consulting relevent CINCs concerning the work of the OGs and for coordination with them.

Each Operational Group would be responsible for making plans for a category of unorthodox missions, as defined in the Group's charter. Possible mission categories are discussed below.

The primary plans prepared by each OG would be evaluated by competitive exercises to be run by the Joint Warfighting Center or other Joint facility. These exercises will involve one or more existing staffs and the OG. Each would be given the same scenario and ordered to develop plans. Then all plans would be tested by either CPX or FTX. If the plans prepared by the OG were not clearly significantly better than the product of conventional planning the OG would be disbanded or directed to work on different missions.

Each Operational Group would be composed of an active duty officer as coordinator, and contractor personnel, including a Team Leader who formerly held the rank of O6 or higher, a core of former officers with relevant special expertise (intelligence, logistics, communications, special operations, air operations, naval operations, etc.), plus personnel to provide policy and other non-military expertise.

The Team Leaders would be instructed to approach the problem as they would if they were expecting to personally command the implementation of the plan.

Tthrough the COG the OGs would be responsive to the Chairman of Joint Chiefs of Staff and on tap to the various CINCs involved with problems of the kind the Groups are studying. Additionally the OGs would be responsive to the Under Secretary of Defense for Policy who would have an interest in the policy implications of the missions they are studying.

The Chief of Operational Groups (COG) would be responsible for the relationship of the OGs to other military authorities, for the overall organizational principles under which they are operated, and for supervision of the contracts under which the work of the OGs would be done. The COG would also be the interface for arranging competitive testing of the plans of the OGs. The COG would be responsible for drafting the charters of each OG and making sure that the Groups meet the terms of their charter.

However neither the J7 nor the Chief of Operational Groups would be responsible for the substance of the plans produced by the OGs. The purpose of the program is to have multiple sources of thinking rather than a single source. The Chief of Operational Groups would be responsible for the professional competence of the effort used to produce the plans, but the plans themselves would be the responsibility of the OG Team Leaders.

The COG would be responsible for instilling in each OG Team Leader a sense of independent responsibility for the assigned missions. This includes independent thinking, initiative, and taking responsibility for obtaining all necessary information and counsel.

Most of the OGs should include personnel with diplomatic or foreign policy experience. And the COG would be encouraged to arrange for some form of involvement by the State Department in the work of the OGs so that the general attitudes of the Department would be better understood in the OGs, and so that the Department would have a more detailed awareness of the interface between political/diplomatic issues and military planning considerations.

Since in the typical case effective operations depend on unique local circumstances and personalities, the OG team leaders would be encouraged to develop sources of information -- or procedures for obtaining such information -- that will enable them to develop unique unorthodox operational concepts where necessary. The OGs would have modest consulting and travel budgets for this purpose.

The cost of the contract for each OG would be between $1.5 and $2.5 million.

Missions

This project could be initiated with between one and four OGs. The first OGs would have the dual purpose of performing their specific task and of testing the concept of mission groups. Later OGs could be added to cover additional missions, either from the list discussed below or otherwise.

General. Each OG mission will be defined by a generic military mission and a set of political constraints. Therefore the mission definitions will cut across normal military planning assignments which are set by geography or by the kind of military operation. Since the driving consideration for these kinds of missions is political, the inclusion of the political constraints (or environment) in the definition of the mission will maximize the ability to develop suitable plans, and justifies the crosscutting overlap with regular planning programs. The result will be that in order to achieve their objective some OGs will work on plans for more than one kind of military operation.

Many of the missions for which the OGs will prepare plans are missions for which CINC staffs or other groups may also normally prepare plans; the potential duplication is desirable because the OGs will bring the benefits of specialization and concentration of effort -- as well as a different point of view -- to the planning of particularly challenging missions. In other cases the CINCs may request OGs to assist their own staff in preparing their Command plans. In a time of changing technology and very diverse political challenges it is important to supplement systematic mainstream thinking with alternative sources of ideas.

The charter for each OG will specify a category of mission -- such as Asset Protection -- including the political constraints and one or more sample general scenarios. The OG will be responsible for proposing additional scenarios and variants of the assigned mission.

The Operational Group program as a whole is intended to be experimental. One of the main ways in which the results will shape continuation of the program is by changes in the missions assigned the Groups. The following is a list of possible missions for inclusion on the initial list.

Mission A. Protection of Isolated Critical Assets
Mission B: Dominating low-grade military forces
Mission C: Compellance of Governments
Mission D: Extended Operations in Unfriendly Populated Area, i.e., Stability Operations
Mission E: Special Purpose Force Insertion Missions

A. Protection of Isolated Critical Assets

One example might be nuclear weapons storage sites or deployed nuclear weapons, which in a situation of temporary breakdown of governmental control might become vulnerable to seizure by brigands, paramilitary forces, or small military units operating without national authority. Host governments might seek help in protecting such weapons, or to save face might unofficially appeal to the U.S. to insert a force to protect the weapons until order had been restored. The mission might involve protecting a few sites or many.

The political sensitivities of such missions are obvious -- and in some circumstances would be so great that the mission could not be undertaken. If undertaken the mission would involve grave dangers because it would require placing small forces in situations where the ability to support or remove them could not be assured. However the importance of preventing numbers of nuclear weapons from coming into rogue hands is great enough to justify substantial risk. The U.S. government would be subject to criticism if nuclear weapons were seized by small groups of armed men, from whom the weapons could easily have been protected, only because no preparations had been made to provide small units of guards who would stick to their post and not be subject to bribery or small-scale coercion.

Obviously it will not be possible to protect nuclear weapons in all circumstances; but that is not a reason to fail to plan to be able to protect them where it is possible to do so.

This mission might be for the protection of other assets than nuclear weapons, such as other weapons of mass destruction, or critical weapons production assets, or groups of people such as leaders of a government being overthrown, American diplomats, or other people of special interest who are in danger from small-scale violence as a result of governmental breakdown.

The Asset Protection OG would be responsible for creating a library of scenarios in which Asset Protection Operations might be called for. The OG would design and develop doctrine and procedures for Asset Protection units. For each scenario -- with its particular political constraints -- the OG would prepare specific plans, including logistics, reinforcement and removal contingencies, communications, etc.

There are three main elements of the Asset Protection Mission: the overall political situation and the invitation to insert forces; the operation of the forces at the sites; arrangements for inserting, removing and reinforcing the forces. All of these might involve a very fluid and ambiguous political situation, with uncertainty about the behavior of national air and air defense forces. In such situations there is often a high payoff to preparations that permit carefully prepared limited risk-taking. The preparation of plans for and detailed consideration of a variety of scenarios will make it possible to

develop a greatly improved understanding of the risks involved in such operations as well as of procedures and techniques that can be used to reduce the risks and increase the chance of success.

Mission B: Dominating low-grade military forces

(i.e, forces that have no national headquarters and base structure that could be attacked, but which are armed with weapons up to medium artillery, and organized in battalion or brigade commands)

Objective

Causing damage to a quasi-military force, and demonstrating the ability to cause more damage to the force in the future (in support of deterrence or compellence).

Normally military forces are concerned with taking or protecting territory or destroying enemy forces, but in circumstances that are likely to be common in the future such conventional objectives will not be suitable. One of the things that U.S. forces will be called on to do is to earn fear and respect from local military or quasi-military forces.

Protecting people from out of control military forces over the long term is often too difficult and requires too much of a force commitment. The threatening forces cannot be permanently destroyed. Therefore the only answer is to overawe them by demonstrating to them that they will be hurt if they try to use force to bully people. In order to be effective such demonstrations must conform to political constraints and must be efficient, otherwise they will not be believable threats.

The most likely methods will be capturing or killing officers or men, and/or seizing or destroying military equipment or supplies.

Constraints

1.) Low civilian casualties (e.g., less than 10% as many as military casualties)

2.) Very low U.S. casualties (e.g., less than 10 dead expected, less than 100 maximum, and less than 10% of enemy casualties)

3.) Operation must be completed in prescribed time; alternatives: (that is, three alternative missions)
   a) 2 days
   b) 10 days
   c) 50 days

4.) If local allies are used they must not be able to use the U.S. help to be able to commit atrocities against civilians.

5.) The action must demonstrate an ability to hurt the attacked force worse than that force can hurt friendly civilians (unless there is an expectation that perpetrators of crimes against civilians will be punished) -- to reduce the danger that the operation can be stopped by hostage-taking or retaliation.

6.) No two-night presence on the ground of more than a squad. (We do not want to have a presence, nor to have protect forces or sites.)

7.) It is preferable to have a choice of acting either from the air or by inserting ground forces for short periods, depending on the political/psychological requirements.

Environment

1.) No local base available.

2.) Base available w/i 100 miles.

3.) Terrain may be:
   a) jungle or forest
   b) mountains
   c) farms and villages
   d) towns
   e) open

4.) We have control of air
   (but enemy may have light ground-air missiles)

Discussion of Typical Scenario

Our political authority wishes to issue an ultimatum to a group like the Bosnian Serb army/government and to back it up with an implicit threat badly to hurt the military force if it does not comply.

The enemy force is a low grade force, but it may have some state-of-the-art equipment. While the casualty ratio needs to be 100-1 in our favor, or at least 10-1 if things go badly, there is no objection to our spending much more than the value of what we destroy. We can use a carrier task force and squadrons of planes and satellites to destroy a dozen mortars and kill a few score of troops. We can choose which part of the enemy force to attack, and we don't have to defend anything except ourselves against the enemy force. But we have to demonstrate the ability to increase the harm to the enemy enough to deter him from protecting himself by threatening neutral or friendly targets. (That is, in Herman Kahn's term, we have to have "escalation dominance.")

Often the kind of force this mission will target can be destroyed as a military factor by putting the leadership structure out of action, after which the force "melts into the population," which may be a perfectly satisfactory outcome.

We do not have to inflict the desired damage immediately, or in a single blow, but we do have to be able to do it in a reasonably short campaign (days or weeks).

The variation from scenario to scenario for this mission will include variations in terrain and location, in the exact character and quality of the enemy force and its equipment, and in the extent to which the enemy force is able to deploy itself among or near innocent civilians.

An important requirement of this mission is that our force achieve a strong degree of psychological dominance over the enemy. The enemy troops and command must be made to feel that they can be damaged virtually at our will and without real cost to us, and that our forces are invincible.

In some circumstances using air power to damage the enemy will be politically and psychologically inappropriate, while the use of small ground forces will be suitable. (In other circumstances the opposite may be true, which is why we should prepare both capabilities.)

One reason why the political/psychological objective can sometimes be best achieved by use of ground forces, is that it is less humiliating for the enemy to be vulnerable to multi-million dollar aircraft with "futuristic weapons" than it is to be helpless before ordinary troops fighting on the ground with ordinary weapons (even if those troops depend on air support, and immense amounts of high technology for their effectiveness). Also the relationship may be politically more desirable if we don't use the impersonality and disconnection of an air strike. (This might be desirable, for example, in attacking a primitive African tribe.) This psychological objective is also enhanced if our operation seems "elegant" -- rather than massive and messy.

The elegance and invincibility may also be needed for do estic political reasons. If we use our forces for this kind of mission there must be no doubt that militarily we are overwhelmingly successful -- even though the operation is on a very small scale. There will be public support if it is clear that the enemy is badly hurt and we are not, and that we are in absolute control of the situation. (Of course these are extremely demanding requirements, but there will be situations in which it will not be politically possible to use our forces unless we can meet such demanding requirements.)

Sometimes the operation will be more politically feasible if it can be conducted with few troops engaged. Because this adds to the elegance, it reduces the extent to which it looks as if we are a Goliath pushing small people around, and it increases the believability of the possibility that we will do such things on other occasions. In connection with any of these effects it doesn't matter that the number of troops engaged is only a small fraction of the force committed -- for air support, logistics, back-up forces, etc.

We may be able to meet such stringent requirements only in very special circumstances. But if we act in those circumstances the enemy does not have to know that they are the only circumstances in which he is so vulnerable. In other words, we may have to choose our actions carefully to build and maintain a reputation for invincibility and untouchability.

Mission C: Compellance of Governments

Objective

To be demonstrably capable of acting against a government in a way that they cannot withstand or survive. That is, to be able to force a government to yield by making a threat that they cannot absorb -- normally the destruction or overthrow of the government. The compellence mission is more fully discussed in "Using Military Force to Compel Governments," Sept. 22, 1993, a paper prepared by this author for the Office of Net Assessment.

This mission may often be an example of a Force Insertion Mission as described below. It is defined as a separate mission because it is of special importance and has unique requirements. For the compellence mission the primary problems are political -- understanding the appropriate targets, and properly reflecting political and psychological factors. The other two missions require a greater share of attention being given to the physical problems. The Compellance Mission is focused primarily on what we can do or threaten to do to a government to compel it do something, whether it will be done from the air or the ground.

Constraints

1. The harm to the group of people in control of the government must be large compared to the harm to the country or the people in general.

2. The threat must be one that can be continued.

3. It is preferable that part of it can be delivered and part kept as a threat, or that the threat can be demonstrated.

4. Fairly fast implementation is desirable.

5. Very low U.S. casualties expected.

6. Various fundamental political constraints and requirements that do not strongly affect military planning.

Environment

U.S. can achieve complete control of the air over 8,000 ft. (But enemy may have shoulder-fired ground-air weapons.) Bases

available within 500 - 1,000 miles of target government.

It cannot be assumed that compellence is possible. The OG would be responsible to study possible approaches to compellence, and to propose the best measures they can devise for compellence in a variety of circumstances.

The proposed measures can use either standard forces and equipment (if possible) or special equipment and specially trained forces. For each compellence approach developed by the OG it should describe the circumstances in which the approach can be used, and all the requirements for creating the necessary capability (equipment, doctrine, training, etc.).

Mission D: Extended Operations in Unfriendly Populated Area, i.e., Stability Operations

In recent years Somalia, Bosnia, Ruanda have provided examples of situations in which U.S. forces -- sometimes as part of a combined force -- are called on to go into a country where there is no established government capable either of protecting or destroying international intervention groups, and such operations are a generic mission for which there is doctrine extant. In such situation the mission of the military force is to protect itself and a group performing some civil function. The civil functions may be performed by U.S. civil or military officials, other international personnel, or local organizations needing protection. Conventional tactics for protecting military forces operating in a hostile environment are not sufficient because it is necessary also to protect those people who are carrying out their civil functions which require them to mingle with the local population.

While recent experience has amply demonstrated the undesirability of such missions it also demonstrates how likely it is that such missions will be considered in the future. Therefore innovative efforts should be devoted to finding better ways of conducting such missions more safely and effectively when necessary and to making political authorities fully and intimately aware of the nature of the difficulties and of the requirements necessary to make such missions as feasible as possible if they must be done.

This is an multi-purpose OG. The common features of the class of missions are that they all involve:

(i) extended U.S. military presence in populated areas not controlled by a friendly government (therefore a need to be able to protect personnel from local civilians and enemies who hide among them);

(ii) need for very strong political intelligence so that local assets and special techniques can be used;

(iii) probably a need to work with many personnel in addition to US military personnel

(iv) diplomatic and political skills

(v) need to hold casualties on both sides to a low level.

(vi) in some cases the force will also have to provide emergency medical treatment and temporary infrastructure for the local population.

A force assigned this mission must protect something other than itself, and will not be able to protect itself entirely by movement and isolation. On the other hand, the force does not have to be self-sufficient, it can build capability after it is deployed and may have months before it has to be at full capacity.

The major special element of this mission is that it is likely to involve working with local or non-military personnel and perhaps organizations. The tactics and even strategy of the mission is likely to center on political and other local factors. Success will depend on getting as much benefit as possible from the local factors that can be used to give leverage to the Mission.

For example, the Mission Group might establish procedures and doctrine for hiring, training, and supervising local police personnel, or new U.S. or third party personnel, in case the mission requires maintaining law and order in a populated area for an extended time.

The OG's specific tasks would be to:

(A) Prepare doctrine, tactics, and techniques for operating in populated areas by use of:

(i) political and environmental sensitivity which secures local allies and sources of information;

(ii) careful operational practices to reduce exposure to civilian enemy actions. (Normal military measures of self-protection are not suitable for extended operations in areas with large numbers of civilians where forces cannot be kept in sizable military units but must work individually and in small groups.)

(B) Prepare techniques, doctrine, and other requirements for creating a system to use local, foreign, and U.S. civilians, to perform functions necessary for various missions in countries with limited governmental capabilities.

(C) Develop scenarios in which such extended operations might be required and determine the requirements of success for various possible objectives. For each scenario propose

techniques for dealing with the primary problems, and prepare to be able to accomplish the appropriate mission.

(D) Determine how necessary political intelligence can be obtained, on the spot and in advance, through existing intelligence sources and in other ways. Provide techniques for teaching environmental sensitivity to officers assigned such missions.

Mission E: Special Purpose Force Insertion Missions

Mission E involves inserting people and small equipment in enemy territory to destroy special targets, recover hostages, capture personnel, or other particular purpose.

These missions might be needed to destroy targets that are too hard (or in other ways unsuitable) for destruction by air attack with regular munitions and tactics. Some North Korean nuclear facilities may be examples. Also targets where the intelligence is not good enough to allow destruction from the air while limiting collateral damage.

The extra difficulties of the force insertion missions compared to use of stand-off forces -- more vulnerable planes, need to land and remove the landing group, the need to defend the landing group until they have been removed -- will mean that force insertion missions are usually feasible only against countries with weak air defense capabilities, or targets very near the border or shore, or scenarios in which we can massively suppress air defense or afford to risk substantial casualties.

The central problems of force insertion missions are: (i) what the small inserted force can do, and (ii) how it can be protected (landing, leaving, and on the ground).

Sometimes force insertion missions, like normal SO missions (and unlike most of the missions discussed in this paper), may depend on speed, surprise and deception, to protect the inserted force against the danger of forces being gathered to attack it. But frequently the force insertion mission will be different than SO because the inserted force can be protected by reinforcement, air power, or deterrence, so it will not be vulnerable to enemy reinforcement and will not depend on surprise or deception.

Rescuing hostages or capturing individuals from unfriendly countries are also examples of force insertion missions. Hostage rescue has the unique task of preventing the enemy from killing the hostages if he has time to do so when he knows they are about to be rescued. Other force insertion missions will each have their own unique requirements.

Argument

This proposal is intended to achieve major benefits using small resources. The real cost is that it requires very high

level support and willingness to go against the institutional grain.

Since the proposal is designed to compensate for one of the necessary weaknesses of the main military system it requires a willingness to do things in ways that normally would be objectionable. Whereas normally the system is designed to produce unity and consistency this proposal is designed to create alternate sources of ideas.

Some missions present so many political constraints that they can be successfully completed only by using creative and unorthodox approaches, often taking advantage of unique local circumstances. This possibility can be increased by establishing Operational Groups that specialize in such missions and are freed from pressures to operate in normal ways.

The connection with the Revolution in Military Affairs is that the Operational Groups will have to think about how they can use new technical possibilities to accomplish their missions, and how enemies can use new technical possibilities to defeat them. By creating a number of groups that are required to consider ways of using new technical possibilities from different points of view, the chance is increased that new operational concepts will be developed and understood.

Some Missions for Net Assessment

by Max Singer

June 11, 1996

The idea of net assessment, as I understand it, is to evaluate the ability of our forces to overcome enemy forces, because the proper measure of effectiveness for military forces is relative to enemy forces.

Now more than ever U.S. forces have a variety of potential tasks against a wide variety of potential enemy forces, and often political criteria of victory and political constraints on operations will be determinative. Therefore new kinds of net assessments need to be made to evaluate US force structure and planning.

One possibility is to do net assessments of DoD's ability to accomplish specific missions -- each of which is defined as a class of tasks that the military may be called on to perform in the face of a relevant set of potential enemi s, within specified political constraints.

Here are some first thoughts about some items that might be included on a menu of missions in Net Assessment's program.

Mission 1: Protecting the U.S. from attacks by missiles, planes, or suitcase bombs.

(Also, direct or indirect protection of allies or neutrals from long-range attack .) (ref.: The Arms Control Case for US Missile Defense Programs, by MS.)

The primary enemy of concern is not a nation seeking to defeat U.S. military forces or to force U.S. surrender, it is a nation or group that wants to hurt the U.S. or to deter it from interfering against it, with the capability of killing hundreds of thousands or millions of US residents. The enemy's motivation may be irrational, or revenge, or hatred, as well as deterrence of US intervention. Sub-national groups in Russia would be part of this group of potential enemies.

At least for contrast this assessment could also include evaluation of the possibility of protection of U.S. against attacks by advanced major powers seeking to dominate the U.S. (i.e., traditional central war issues).

Presumably the assessment would not deal with our ability to cope with sabotage actions not involving weapons of mass destruction. In other words WTC-type attacks would be excluded, but covert introduction of weapons of mass destruction into American cities -- for example on ships -- would be included. (This needs to be considered if for no other reason than that the residual vulnerability to clandestine weapons limits the value of effective defense against military delivery.)

Mission 2: Multiplying the U.S. force over a period of years to deal with a potential peer competitor.

The enemy for this mission is a power that develops over years. The necessary response includes increasing the size of the force and making the necessary adaptations to the particular threat posed.

Mission 3: Winning Ground/air battles against 2d and 3d rate forces.

These assessments involve potential battles in which U.S. military forces are trying to destroy at least divisional size enemy military forces, of a country that does not have the resources, discipline, or tradition to create a large first class military force, but may have technically advanced weapons.

Either because the enemy force is large, or because the U.S. needs to be able to defeat it without massive troops commitments, for this mission the U.S. must have the ability to defeat numerically superior forces (2-5 times the number of ground troops employed by the U.S.) The assessment will need to include qualitative aspects of the enemy fighting capability, and of the U.S. ability to exploit qualitative differences.

Mission 4: Winning High-tech Limited Wars

This is an assessment of the U.S. ability to respond to a creative, non-conventional use of high technology weapons to make a limited challenge to US forces. The hypothetical enemy thinks of new ways to attack U.S. interests or assets in some limited way. By definition the U.S. does not want to solve the problem by a central war against the enemy, and therefore must be able to defeat the attack on its own terms or with some kind of limited counter-action. The key part of this assessment is thinking about clever ways countries can use new technology to cause trouble for the U.S. Concepts like space war or information war may appeal to a potential enemy because their "non-violent" character may make political inhibitions against normal military responses.

Mission 5: Defeating Forces Using New Operational Concepts

The enemy for this mission is either a peer competitor or a substantial regional power that develops its forces to use new operational concepts to be able to defeat U.S. forces.

Mission 6: Destroying or compelling governments with limited damage to their societies.

If a country is doing something the U.S. would like to stop -- such as attacking another country -- the standard remedies are either to fight the attacking army (or terrorists) or to punish the country with sanctions or attacks that may hurt the country more than its government, and from which we may therefore be self-deterred. This mission is to

be able to do or threaten something to the government that the government cannot resist, and which would cause little enough harm so that it is politically possible for the U.S. to do it.

Mission 7: Military Effectiveness in Various Politically Constrained Small Force Engagements

Many potential uses of military force will require small forces used in unusual ways in situations where political constraints dominate the situation. Therefore force effectiveness will be determined by the ability to apply specially tailored forces in creative operations where the challenge comes partly from the military capability of the enemy and partly from the constraints. The assessments will look at classes of scenarios to evaluate the system's ability to accomplish potential missions in those scenarios.

An Arms Control Case for Missile Defense and Implication for System Choices

by Max Singer

February 6, 1996

Summary

A key reason for starting to deploy a missile defense of the US is that we have a good chance to shape the pattern of military programs so that long-range delivery systems will not come into relatively common use by small and medium countries. A world in which such countries do not have long-range delivery systems would be better for the U.S. and for the world as a whole.

A degree of general defense dominance that makes it unattractive for small countries to build long-range delivery systems is a practical long-term objective. It is important to get on the path toward that objective as soon as possible. Because the sooner expectations are turned away from widespread deployment of long-range delivery systems the easier it will be to prevent dispersion of such systems.

There are three basic technical/economic points:

(i) a practic l degree of distributed defense capability would multiply the cost to small countries of getting effective long-r nge weapon delivery systems by a factor of 2 - 10 or more (compared to the no-defense case).

(ii) practical technical-political changes in the environment could make it possible for small and medium countries to buy useful degrees of defense capability at more modest costs. (Therefore some countries may spend so much on defenses that they don't feel they have enough to be able to afford long-range offensive weapons.)

(iii) increasing the ratio of defense to offense expenditure can increase the ratio of bang-for-the-buck available for defense spending compared to offense spending. (This will tend to attract expenditure from offense to defense.)

Some people believe that defense against long-range missiles will have an adverse effect on the political-strategic relationship with Russia and China -- an issue not addressed here. But if that belief is correct, any gain in the Russia-China arena from avoiding long-range defenses must be weighed against the arms-control cost described here.

Discussion

The term "arms control" was coined in distinction to "disarmament," with the idea that, if enemies would not agree and could not be compelled to disarm themselves, the quantity or nature of weapons might be adjusted to serve various common interests, such as avoiding accidental war. "Arms control" is concerned with shaping a military environment to achieve benefits for several parties.

The argument here is that U.S. missile defense programs can be used as part of an effort to shape the military environment in the zones of turmoil (formerly "third world") to prevent long-range warfare from becoming a significant factor. ("Long-range warfare" is the use or threat of military attacks against non-adjacent countries.) One reason to think this is a practical goal is that long-range warfare is so historically unusual that it could even be called "unnatural".

Through most of history warfare could only be used by the militarily strong against the militarily weak, because there was no way to hurt a country without defeating its army. (Blockade was a rare partial exception.) Also, there were never many countries that had substantial power except at their borders. Long-range warfare -- principally by missiles -- is anomalous because it permits countries to damage other countries without defeating their army. (Severe damage can only be achieved with either good terminal guidance or weapons of mass destruction.)

(Terrorism with weapons of mass destruction is a kind of long-range warfare which cannot be prevented by the measures discussed here. But even though terrorism can't be eliminated it is worth-while to minimize other kinds of long-range warfare.)

The world would be better off if the possibility of long-range warfare were reduced or eliminated, with the result that weak countries could only threaten military harm to nearby weak countries. Consider four cases:

1. Great democracy vs. great democracy. No problem.

2. Great power vs. great democracy. Rare. Maybe no answer.

3. Small power vs. great power. Long-range war undesir.

3. Small power vs. small power. Long-range warfare undesir.

> 1. Of course some day one great democracy may threaten another militarily, but the possibility is too small to influence military planning at this time.
>
> 2. Now almost all great powers (Italy and up) are stable democracies, and there is a substantial likelihood that future great powers will be stable democracies, or otherwise unthreatening. The exceptions are few enough so that programs that work in the rest of the world are worthwhile, even if they don't apply to Russia or China.
>
> 3. There are two reasons why it is desirable to prevent small powers from being able to hurt large powers. First, we and our friends are large powers. Second, the world is more peaceful and orderly if small countries can't hurt large countries. Large countries are better able to play a pacifying role if they are not in danger, and there are many fewer militarily practical conflicts if weak countries can't hurt more powerful countries.
>
> 4. There are two reasons why it is desirable to prevent small powers from being able to use long-range warfare against other small powers. First it is a potential source of disorder, conflict, and deaths. Second, if a small power buys missiles to use against other small powers it might use them against big powers. The best protection against a missile is to make it not worth-while to build.
>
> In other words, we have a substantial incentive to do things that make it less practical for one small country to buy long-range delivery systems to use against other small countries. Because if countries don't have missi es to use against other small countries they won't have mi siles that they might later aim against us or our allies, or against other small countries who they would be too distant from to challenge.

Now missiles with weapons of mass destruction are very expensive. But the powerful trend of technologic l advance and economic development, and quite possibly the spread of nuclear weapons, will certainly reduce the barriers to acquiring better and better

systems for long-range delivery of weapons of mass destruction. And the likelihood of transfer of knowledge, components, or weapons from the FSU will speed the reduction of these barriers.

There is a good chance that costs and obstacles will decline so much that in 20 - 30 years there will be ten or more non-democracies that can afford to build systems that can deliver weapons of mass destruction (or scores of HE warheads with 0 CEP) more than 2,000 miles. Because technological advance reduces the cost of fixed tasks, e.g., delivering a fixed killing power a fixed distance.

This trend of declining costs to acquire effective means of delivering weapons of mass destruction at long-range can be counteracted by missile defenses, because, technological advance has no tendency to reduce the cost of overcoming defenses, which also benefit from such advances. (As we shall see the problem is not whether offense can beat defense for equal dollars or at the margin; for some important purposes it is enough if many dollars of defense can defeat few dollars of offense, and defense need not be perfect to be effective.)

Modest U.S. missile defense efforts made now can start to make it likely that in 20 - 30 years there will be few if any non-democracies that can afford to build systems that will be good enough to reliably deliver weapons of mass destruction against lightly defended countries more than 2,000 miles away. (It is easier to defend against long-range weapons than short-range weapons.)

The two reasons to focus on defenses against long-range weapons are that: generally it is easier to defend against distant threats than near threats; and, if a country can only attack nearby targets it has many fewer countries it can fight against.

Note that a threat of unreliable delivery is a threat, because an unreliable defense is not satisfactory protection. But countries are not likely to build systems at high cost if they know before they start to build that the best they can get is an unreliable ability to deliver weapons against the targets they are interested in.

(Obviously this is a matter of degree. One might speculate, for example, that a country would not pay significant costs to attain one chance in ten of being able to deliver three weapons of mass destruction against the expected defenses of its important targets. Especially if there were a possibility that it would end up with no serious chance of del vering any weapons through defenses. This possibility would not be balanced by the possibil ity that the penetration ability would be three times better than ex cted. In general, uncertainty about ability to penetrate through defenses will have significantly different effects on political thinking than uncertainty about whether a country's missile force will actually work [that is, against no defenses].)

This means that the difference between defense-conservative figuring and offense-conservative figuring is important leverage in favor of deterring building missiles compared to dete ring firing or threatening with miss les.

In conclusion, if missile defense capability becomes more widespread there will be fewer countries that can afford to build missile systems that are good enough to be worth building.

Now look at the question of defense from the point of view of the potential missile builder. Who does he want to be able to hit? First, his potential victim or attacker, usually a fairly nearby small power. Second, the great powers who he wants to deter from "preventing his aggression." Third, if he can't threaten great powers he needs to threaten neutrals to deter great power interference. The fewer of these classes of target he can expect to reliably deliver weapons against, the more discouraged he will be from committing large resources to acquiring long-range delivery systems.

Of course we are most concerned with protecting ourselves, and to a lesser degree, making it easier for other great democracies to protect themselves. But we also have a substantial inter st in other countries being protected -- because the fewer vulnerable targets the less the incentive to build delivery systems, because we will feel it as a cost if neutrals are hurt, and because if neutrals are vulnerable the democracies' ability to prevent

aggression or genocide will be reduced by vulnerability to blackmail by threats against convenient neutrals.

Therefore, all else equal, defenses that provide some protection to other countries, or reduce the cost of protecting them, are more desirable than weapons that protect only the U.S.

Once missile defenses begin to be built there will be a tendency for them to become more widespread and better. As systems are deployed technology advances and costs decline. There is a political and technical demonstration effect, and learning curve and other efficiencies develop. Sometimes one system directly or indirectly supports another. If components are transportable there is the possibility that they will be redeployed to meet new threats. In general, defense will gain compared to offense as the ratio increases between money spent on defense world-wide and money spent on offense world-wide. (And the U.S. benefits from defense being stronger.)

Even though defense systems are national, there is a sense in which it is reasonable to look at all defenses as an overall defense system for the world -- one which is more effective against some threat paths than others, depending on technical factors, political circumstances, and preparation time. The world defense system is partly cumulative. Once missile defenses begin to be built anywhere it is likely that over future decades the world defense system will cover more and more territory with more and more effectiveness.

Currently we are in a very rich part of this curve. That is, the world-wide ratio of offense dollars to defense dollars is so high -- perhaps 100 to 1 -- that small increases in defense dollars can make a big change in favor of defense. (Of course such generalized calculations have only imited validity.)

For a small power, building a long-range missile system to deliver weapons of mass destruction takes a long time -- at least five and probably ten years. Therefore the decision to build will depend on the builder's expectations about defenses 10 years in the future.

One key question is, "how long will it be from when the U.S. starts building missile defenses until the growth path of the overall world defense system has gone far enough so that most small powers will decide that it is not wort -while to start building missile systems?"

Obviously there is no single answer to this question. Some countries have so little interest in building long-range warfare systems that they will not build them even if there are no defenses. Others will build if they think they will be able to deliver against their preferred targets for only five years before defense can defeat them, even if they know that most of the world has good protection against what they are going to build. And defense will not be equally effective in all areas of the world.

But we should see ourselves as being in what might be called a deferred race against an unknown rival. We would like the expectations about the world defense system to be good enough to prevent countries from deciding to build missile systems whenever they begin to think about it. Maybe X will make such a decision in 6 years, Y in 9 years, and Z in 12 years. How fast the world system starts and grows will determine how many of these decisions are positive. And each decision will affect later decisions.

How quickly the world defense system gets far enough along on its growth path to lead to decisions against building long-range warfare systems depends on when we start, and on how much our initial programs encourage or support the spread of the world defense system. For example if our target acquisition system will cover other areas than the U.S. it would be an advantage. Also, the greater the share of costs that can be reduced by volume purchases the better. Also the higher the per cent of system cos in items that can be redeployed to protect different targets the better.

How soon the world defense system begins to deter countries from building missiles obviously depends on when it starts and how fast it grows. For this purpose the growth rate that counts is not primarily the rate of growth of protection of the U.S., but the expected futu e growth of world capabilities. Foreign protection that has just begun to be built may

have a greater effect on decisions about missile building than substantial U.S. operating capability.

Therefore, to the extent that the medium term threat to the U.S. is small, we will get more benefit from programs that have widespread delayed potential than from programs that will provide only local protection more quickly. The widespread potential can include that which depends on other countries spending to defend themselves.

One of the major goals the U.S. might reasonably adopt is to get the world on the path to defense dominance as soon as possible. If that goal is adopted, how quickly and completely defense actually becomes dominant would be less important to us than how quickly the world becomes visibly on the path to that end.

If we are trying to change the calculations of a country that may be deciding whether to build long-range delivery systems, the date that we begin to deploy defense systems is more important than the date they become operational. (Of course direct self-defense is the opposite, it doesn't cares when we start to build, all that counts for that purpose is when the defense actually works -- or at least is thought to work.)

Therefore much of the current discussion, about how soon the threat will require starting U.S. deployment, misses the point. The hurry is not because we may be attacked soon. The hurry is that we need to start a soon as possible a process that results in countries deciding that it isn't worth while for them to build long-range delivery systems.

If defense is being built by the great powers it will seem to be clear that eventually defense will be dominant against small power offense.[1] What is critical is to teach the

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[1]Defense dominance does not imply that defense is perfect; there will be some probability of some weapons penetrating even against a dominant defense. Defense dominance means that at least the defense is good enough o that the offensive threat is too small to justify its c st, or that the offense is better off doing something e. se than trying to overcome the defenses.

lesson that in the end defense will be dominant against small and medium power long-range offense. The only way to teach that lesson is to begin to create the reality than makes it true.

Conclusions

A. There are two possibilities for 2020-2030:

1. 10 or more countries have long-range weapon delivery systems with either weapons of mass destruction or 0 CEP, and the possibility of such weapons being used is a significant element of military/political thinking concerning much of the world.

2. Only great democracies (and Russia and China) have long-range weapon delivery systems, and the possibility of threat or use of long-range weapon delivery systems rarely if ever enters into political or military calculations in the zones of turmoil.

It is possible and desirable for the U.S. to act to make the second possibility much more likely, by starting the world along the path toward defense dominance in long-range warfare.

B. The arms control incentives for the U.S. to begin to deploy missile defense systems may give more reason for starting as soon as possible than the self-defense incentives.

C. In making a decision about the kind of missile defense system to deploy, account should be taken of the extent to which the system will reduce the cost of missile defense capabilities for other countries.

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On Understanding Russia

by Max Singer

Russia is devoting serious resources to development and procurement of advanced military technology. Some of its behavior concerning military matters makes sense only if they are planning primarily for military conflict with the U.S. But in fact they are not remotely in a position to be capable of fighting against the U.S. (except some aspects of nuclear war) and their government is not hostile to the U.S. How should we understand the inconsistencies in their behavior, and what kind of threat might they create in the future.

1. Pieces of their security apparatus run on policy momentum, without central direction -- that is, without real connection to national policy.

There is nothing that can truthfully be said about all of the Russian government, because since the breakdown of the government system as a whole different parts act according to very different principles and have to be understood and explained in different ways.

Many pieces of the overall security apparatus -- uniformed and civilian -- continue to do what they had been doing when central direction ceased. These pieces of the system, some of which are large and some of which are only small offices, use the resources they are able to acquire to continue to keep themselves "usefully" employed (and paid), and to maintain internal morale and integrity by keeping up standards. Lacking effective central policy-making authority, their easiest and least controversial basis of operation is to act as if fundamental goals and guidelines are unchanged. Since they had been oriented to war against the U.S. such pieces of the security apparatus being guided by momentum continue to act as if the U.S. were the main enemy.

If the Russian military were to make a realistic assessment of its capabilities, potential, and needs, it would have to conclude that it should drastically reorient its programs away from potential conflict with the U.S. and toward internal concerns and potential conflict with other Republics and near neighbors such as Iran or China. This would be a major downgrading of Russia's position compared to the Soviet Union, and would be psychologically extremely unpleasant, as well as objectionable to vocal parts of the political system.

If anyone in the security apparatus did anything that claims or implies that Russia can no longer challenge the U.S., and will not be able to do so in the foreseeable future, that person would be vulnerable to challenge by colleagues, superiors, or subordinates. The safest way to proceed is not to do anything that can only be justified by recognizing that Russia needs to

plan on the basis of being in a very different position than the Soviet Union.

2. Does this mean that a substantial portion of Russia's military expenditures are being used for activities that would be well-adapted to combat with the U.S. in the future? Yes, and no, but mostly no.

Some share of Russian military efforts are being used to build sound links in a chain for fighting the U.S. Those links may be very good, but they are a small part of a combat chain. Russia does not have an intact authority capable of ensuring that any piece of the security structure can have the support it needs to be effective. Even pieces of the structure that are doing fine work are not motivated or affected by whether their output will have any value as part of a total force.

However good they are, development or production facilities producing high quality advanced equipment are in some degree dependent on the quality of components supplied from outside, or their product is intended for use on platforms produced elsewhere. But they cannot be sure that necessary quality control is maintained by all their component suppliers, or that the platforms they are supplying their equipment to are being produced.

Although many parts of the security apparatus have been able to maintain their integrity and competence, many others have been decimated by corruption or lack of resources. There is no central authority that has been able to ensure that the most important parts of the system are the ones that continue to operate effectively. No one is in a position to rationalize the operation so that resources are transferred from activities that are fatally crippled to those that could be sustained by fixing small problems. In effect, the pieces destroyed by corruption or other factors are almost randomly distributed through the security organism.

3. Could the security apparatus be restored to enough effectiveness to be a peer competitor of the U.S. in 5 or 10 or 15 years? No. They can not get enough governmental authority and resources.

Because of the destructive potential and political-psychological power of nuclear weapons, Russia will necessarily continue to have some substantial ability to challenge the U.S. But this nuclear threat capability should be clearly distinguished from genuine military power.

Obviously Russia could make major improvements in 10 years; we have to be prepared for a military force significantly more capable than that existing today. By the year 2006 Russia might be capable of fielding a competent multi-corps army with modern equipment and tactical air support and a strategic nuclear force

capable of accurately delivering weapons anywhere in the world. But they could not have equipment that is able to compete with new U.S. military technology, and their nuclear forces would not be capable of defeating defenses that the U.S. can build.

There are two requirements necessary to build a military force capable of being a genuine military competitor of the U.S.: governmental authority and large amounts of resources. If the U.S. does not sharply reduce its military expenditures below currently expected levels, Russia would have to devote 15% or 20% of its economy, or more, for a decade, to military programs to make its force competitive with the U.S.

Russia has only slightly more than half the population of the U.S., and a GNP per capita less than a third as large. Therefore to spend as much on military as the U.S. it must allocate six times as large a share of its economy to military as the U.S. And even though they had built a large base by 1991, and are able to steal much technology, and use open civilian technical developments, the years they have been partly out of the race will leave them with difficult catching up to do, even if they were able to begin to rationalize their military programs as early as next year.

To be cautious we must assume the possibility that an authoritarian regime hostile to the U.S. might come to power in Russia as early as the end of this year. Thus we must ask how effectively might such a regime be able to wield governmental authority. Could it operate with the internal effectiveness of the Soviet Union? The short answer is "no!"

While of course it is possible that democratic political forces, or popular resistance to a new tyranny, might prevent an authoritarian regime from effectively organizing government power and fully controlling the state, we cannot rely on such forces preventing Russia from creating a military challenge to the U.S. It is quite possible that an authoritarian regime would be able to suppress democratic and popular resistance to its authority in a year or so.

But there are stronger resistances that reliably limit the ability of an authoritarian regime to acquire the effective power needed to drive the Russian state where it wants to go. It is relatively easy for a regime to gain what might be called "passive power," that is the ability to keep itself in power, to prevent revolt, and to maintain order. The main enemy of passive power is anarchy, and it is easy to find allies against anarchy.

It is many times more difficult to gain what could be called "directive power," that is the ability to operate an economy, enforce a coherent military program, withdraw large resources from the economy, and follow a policy which creates risks to the country. The enemies of directive power are the advantages of alternative directions, incompetence, passivity, and the difficulty of government.

The reason for this generalization is that even an authoritarian system requires at least a hundred or more highly skilled and motivated people working together to run and provide directive power to a large modern state. Each member of this small ruling circle must be a strong person who is given a lot of discretion and power to do the job. The fundamental problem of government is limiting internal conflict among the small ruling group. Since internal conflict can quickly destroy the regime, the highest priority must be to control such conflict.

Throughout history the result of this fundamental imperative governing rulers has been that the ruling class has been chosen primarily for loyalty rather than competence at achieving tasks other than staying in power, and that when there is a conflict between policy goals and the need for internal unity usually it is resolved by doing what preserves internal unity. (Even in the U.S. military coherence is sometimes reduced by inter service competition.)

The lesson of history has been that it is difficult to preserve internal unity even when all external goals are sacrificed. Personal jealousies, normal human misunderstanding and dislikes, and the inevitable suspicions and shifting alliances generated by court politics, are enough to make it difficult to maintain sufficient unity. If differences about policies, and the costs required for a demanding policy, are added, it becomes virtually impossible.

The communist system for maintaining coherent power for three generations was a tour de force, a magnificent evil achievement almost unmatched in history. Its success was based on the organizational use of communist ideology. But its success for three generations was at the cost of producing a destroyed economy, massive damage to the physical environment, and the decimation of the moral and institutional bases of social organization (as a well as denial of freedom and the murder of some 50 million people).

And in the end the communist system collapsed. It is not available to be restarted. And it is a profound mistake to think that it is normal for a government to be able to do what the Communist Party was able to do at such great cost, especially in Russia, where a government will not have assets the communists inherited and used up.

And left over from the communist system, making it more difficult to organize directive governmental power, are thousands of top members of the nomenklatura who have been able to keep pieces of personal power which they will fight to preserve.

Conclusion. The two requirements for Russian military power -- directive governmental authority and resources -- are in conflict with each other. A demanding, controversial policy

which limits help from the wealthy countries and suppresses internal opposition, would make it much harder to reconstruct Russia's economy and sustain high levels of growth. And the removal of 15% to 20% of annual production for military purposes would make this task virtually impossible. But if Russia doesn't have sustained high growth rates and a high rate of diversion to the military it can't have a military capable of challenging the U.S.

In brief, the inherent obstacles facing any authoritarian regime in Russia make it virtually impossible for Russia to create a genuine military challenge to the U.S. in the next 20 years or more.