Chapter Two

IMPORTANCE OF A NATIONAL STRATEGY

Outline

- Top-down: importance of a national strategy
  - The DoD (Army) land base
    - Organizational boundaries
    - Physical boundaries
  - Bottom-up: current processes
  - BRAC, simulation, and Army visions

Figure 3

Figure 3 presents an outline of the briefing that corresponds to the policy questions discussed below Figure 2. In this section we describe the military and political importance of a coherent national
military land strategy and amplify on why critics cite internal DoD organizational boundaries as an obstacle to coherence.

Next we shall describe the Army and DoD land resource and the physical and organizational boundaries that divide it. We include the DoD land resource because we consider obstacles to Army use of these lands.

In a subsequent section we shall move from a focus on the overall military land resource to the Army’s process for determining land requirements and responding to perceived land shortages. We analyze how decisionmaking would be affected by an approach that overcomes internal organizational boundaries.

Finally, we shall describe how simulation technology and BRAC might change the role of such a strategy.
Intense Competition for Land

- A post-1950 problem
  - Large Cold War “withdrawals”
  - 1959 Engle Act
- Less land
  - Suburban sprawl
  - Proliferation of user groups in West
- User groups well organized
  - Locally
  - Washington
- Environmental law invites public review

Figure 4

Figure 4 and the following discussion provide an abbreviated summary of the policy issues related to military use of public lands. The broad implication is that any military request for land will be carefully scrutinized and may be opposed by groups with alternative claims for use of the land.

EASY MILITARY ACCESS TO PUBLIC LANDS (1800–1950)

The United States military manages approximately 24 million acres of federal land, and the U.S. Army manages about half of this total. Throughout much of our history there has been little public concern about how much land the military needed or how the military managed land. The origins of many Army bases date back to the Indian wars, the Civil War, and beyond. These older bases are small, and many are located in the eastern half of the country. In the era between the world wars, motorized combat vehicles, aircraft, and long-
range artillery were introduced into the military. The Cold War brought still faster and longer-range weapon systems such as missiles, jet aircraft, helicopters, and faster armored vehicles. Vast spaces were needed to develop and test these new weapons. To meet this need, the executive branch tapped into the vast federal land assets in the West and the Southwest by “withdrawing” the needed lands from the public domain. Withdrawal means removing lands from the public domain and transferring management to the military. The size and low population of the West, along with the urgency of the military missions, minimized public concerns.

GROWING CONSTRAINTS (1950–TODAY)

One of the first indications of changing societal attitudes occurred in 1957, when a New Mexico rancher offered armed resistance to Army efforts to confiscate land on what is now the McGregor Range within Fort Bliss. The episode at the Praether ranch was later immortalized in Edward Abbey’s novel Fire on the Mountain. The incident highlighted the growing concerns about the executive branch’s ability to unilaterally seize land for military purposes. These concerns culminated in the 1959 Engle Act, which requires congressional approval for withdrawals of more than 5,000 acres of public land for military purposes.

The Engle Act was only the beginning of closer monitoring of military land needs and management. The numerous environmental laws of the early 1970s, such as the National Environmental Policy Act (NEPA), the Endangered Species Act, the Clean Water Act, and the Clean Air Act, indicated society’s desire to monitor the environmental consequences of all private and public activity. Although there was initially little enforcement on military bases, this situation began to change in the mid-1980s. By the mid-1990s the military was paying about $5.0 billion annually to ensure compliance with environmental statues. The imposition of restrictions on military training at

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1Army environmental spending was only $570 million in fiscal year (FY) 1990, reached $1.744 billion by FY95, and declined to $1.575 billion in FY97. See The Army Budget, an annual publication by the Army Budget Office. In FY99 the Army is projected to spend about $1.2 billion for environmental programs. The recent trend toward declining costs is driven by the substantial capital expenditures made earlier to solve long-
Fort Bragg due to the Endangered Species Act demonstrated that these laws could override concerns about readiness and training effectiveness. Endangered species concerns have been greatest on the small Eastern bases where suburban sprawl has reached the edges of bases and where there are few other federal lands for habitat.

An equally important trend has been the rapid demographic growth in the Western states where the federal government’s Bureau of Land Management manages extensive tracts. The military’s ability to access these lands was dramatically reduced in the 1980s when rapid population growth hit the region. Most of this growth occurred in cities and not on the vast tracts of public lands. This has left the politics of land use in a deceptively complex situation. Although most of the West still appears to be empty, new categories of urban recreational users such as hikers, river rafters, fly fishermen, off-road vehicle users, preservationists, and others now compete with the traditional ranching and forestry interests for use of the public domain. These groups, old and new, are well organized and well represented in state capitals and Washington, D.C.

This demographic change has had important implications for the military. Requests for land are now scrutinized in detail and often opposed by well-organized groups. These constituencies review military documents justifying the need for land and have demonstrated the ability to fight proposals in both Congress and the courts. One of the most effective tools is the National Environmental Policy Act (NEPA), which requires analysis of environmental impacts, Environmental Impact Statements (EISs), and public hearings for any major federal decision. Although NEPA does not mandate the outcome of a decisionmaking process, its complex protocols do allow opponents of federal decisions to access the courts and force federal agencies to redo all or part of the NEPA process. The required public meetings can be a rallying event for diverse groups opposed to a particular decision.

fe}stering environmental problems. The reduced costs are also the product of less activity associated with lower overall Army budgets.

Figure 5 indicates that despite the growing competition for land, the Army and the DoD face a long-term challenge of ensuring that there is enough land for training and testing. The primary factor creating this challenge is the continuing increase in the span and tempo of warfare. Figure 5 shows the relative battlespace for forces of three different eras. A World War II battalion could be expected to fight in an area of about 4,000 acres. During World War I there was significantly less mobility and an even smaller battlespace. Today, longer-range weapon systems, longer-range target acquisition systems, and increased mobility have increased the size of the expected battlespace. Army Training Circular 25-1 (last updated in 1991) now states that an armored battalion requires 60,000 acres to train.

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Environmental restrictions imply that even more land would be required to meet that demand in a peacetime training mode. Many installations have set aside areas to satisfy laws such as the Endangered Species Act and other statutes involving the conservation of natural resources. As a result, the Army’s total land requirements will often exceed the amount of land it actually uses.

**ARMY XXI**

Army XXI represents ongoing efforts to modernize the Army’s existing force. While the vision includes factors beyond those determining battlespace, such as leadership training, distance learning, and restatements of Army values and roles, its implications for battlespace promise a continuation of the historical trend. The Army hopes that it can fully implement the vision by 2010.

The main impact on the parameters described above will come from the goal of supplementing existing weapon systems with new capabilities derived from information technology. The Army hopes to develop a form of information dominance that will eliminate some of the “fog and friction” of war and enable the Army’s forces to take a quantum leap relative to today’s capability.

Military planners currently anticipate that information dominance will facilitate a concept called Dominant Maneuver. As defined in the Army’s Vision 2010 document,

> Dominant Maneuver will be the multidimensional application of information, engagement, and mobility capabilities to position and employ widely dispersed joint air, land, sea, and space forces to accomplish assigned operational tasks.

The Army envisions itself moving faster, assembling units quickly from wide areas, and disassembling them with equal speed. It sees itself being able to gain pictures of the battlespace at greater depths and take action at those depths. All of these factors imply a dramatic increase in the battlespace and potentially greater impacts on the land used for training the Army XXI force.

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4See Army Vision 2010, Department of the Army.
Army After Next is an ongoing planning process that is examining concepts and ideas for Army forces beyond those being modified for the Army XXI concept. Army planners hope that the ideas can be implemented in the 2025 time period. Although concepts are still being debated, most Army After Next planning points to the use of lighter and significantly faster forces:

To achieve the speed of maneuver to wage 21st century knowledge-based warfare will require a new concept of mechanized warfare that will free forces of maneuver inhibiting restrictions. The exploitation of knowledge via increased air and ground mobility will result in unprecedented tactical and operational maneuverability. 5

The dependence on maneuver has so far led Army planners to consider significantly lighter vehicles, such as a 15-ton, two-man tank, that can gain increased speeds. Heavy lift helicopters and tilt-rotors that could move these light armored vehicles across a fluid and continually reforming battlefield are also being considered.

It is too early to predict how Army After Next will affect training land requirements. However, the current ideas point to the need for vastly larger areas, though possibly with lighter units having less impact on the land. It is also possible that the large areas might not have to be contiguous. Many Army After Next concepts point to rapid insertion of light forces followed by equally rapid removal. A series of military land islands might support Army After Next training just as well as large contiguous blocks of land.

While both Army After Next and Army XXI may yet go through substantial modifications, both concepts point to vastly increased battlespace. As indicated in Figure 5, the TRADOC Analysis Center at one point predicted that certain Army After Next concepts might lead to a tripling of the battlespace by 2025.

ALTERNATIVES

Given the uncertainties in the future force structure of the Army, it would be careless not to point out that some ideas may lead to smaller battlespace. Some strategists see the future Army as moving away from large maneuver warfare toward a force trained for more compact battles in urban environments. Some see an emphasis on peacekeeping operations. However, under the assumptions that large maneuver warfare remains an Army priority and that the Army will continue to need to conduct realistic multiechelon field training, trends in technology and tactics point to the need for larger expanses of training land.
While Figure 5 suggests the eventual need for more land, Figure 6 suggests a possible overabundance today. Despite steep declines in the defense budget (measured in constant dollars), the DoD manages roughly the same amount of land it did 15 years ago. Although numerous bases have been closed, only a tiny fraction of the DoD Cold War land base has been returned to the public domain.\(^6\) The chart suggests that military lands are, in aggregate, underutilized. With the budget and number of soldiers shrinking, there are fewer units with fewer dollars for training and testing.

\(^6\)An interesting question is whether the utilization of lands used for training the active Army (as opposed to weapons testing, training the reserves, or other noncombat training activity) has decreased as well. In FY86 there were 11 active divisions stationed within the lower 48 states, 1 each in Alaska and Hawaii, and 5 abroad. By FY96 there was the equivalent of approximately 9 divisions in the lower 48 and 1 abroad. Thus the number of units based in the lower 48 states has not dropped as dramatically as that in the overall Army.
We used the DoD budget and land resource in Figure 6 (as opposed to Army values for these parameters) because the public perceives the issue as a question of military land use. The internal organizational boundaries within the DoD are largely irrelevant to people concerned with public lands. In addition, we are interested in understanding the impact of Army land needs if the bureaucratic obstacles to using any part of the entire DoD land resource could be removed.

As will be discussed in the next figure, the Army is engaged in several land initiatives to preserve or expand the current land base. The need might be explained in two ways. The Army might be maximizing its land holdings in preparation for an uncertain future requirement, but with little basis in today’s needs. This would be viewed by some as prudent hedging and by others as a tie-up of unneeded lands. A different explanation may lie with boundaries that divide both the DoD’s 24-million-acre land base and the organization that manages it. Individual organizations within DoD may be land deficient while others are in surplus. Whereas some inside DoD may see this as justification for additional land, those concerned with public land use tend to view the military as a single user of a single resource.
Local Army Training Land Initiatives: “Land Grabs” or True Needs?

- Recent expansions
  - Fort Bragg (10,000 acres)
  - Yakima (53,000)
- Proposed expansions
  - Orchard (40,000)
  - Irwin (160,000–332,000)
  - Kentucky (10,000)
- Reclassifications
  - Fort Polk (45,000)
  - Hawaii (8,000)
- Renewals (2001)
  - Bliss (608,000)
  - Alaska (871,000)

As discussed in Figure 2, installations are involved in numerous land initiatives aimed at preserving or expanding the Army’s base of training lands. Figure 7 summarizes recent and ongoing Army land initiatives.

The figure shows that not all initiatives involve expansion. Land reclassifications involve change in ownership status or change in use patterns on lands that are leased or borrowed. Withdrawn lands are lands that have been removed from the public domain but could be returned depending on the length of the withdrawal.

The land initiatives of the other military services are not included in Figure 7. These are critical for the Army because the public and regional political leaders may not discriminate among military organizations when judging the fairness and honesty of the land initiative process. The just-completed Air Force efforts to acquire land near Mountain Home Air Force Base in Idaho galvanized opposition...
groups in many Western states. Another important initiative is the Navy's goal of withdrawing an additional 127,000 acres of public land at Fallon Naval Air Station (NAS) in northern Nevada. The proposal has drawn opposition from the state of Nevada and from local groups. The controversy is important for the Army because the Bravo 20 bombing range at Fallon is one of the six ranges that Congress will need to renew by 2001.

Below we give a brief description of each of the major Army land initiatives. Some will be discussed in greater detail later in the text. There are numerous smaller initiatives involving a few hundred acres or less. These are generally motivated by the need to rationalize local boundaries rather than by efforts to reconfigure installations to perform new or expanded missions.

**Fort Bragg**

Fort Bragg is home to the XVIII Airborne Corps headquarters and the 82nd Airborne Division, which operates on an 18-hour deployment notice and is typically among the first units to be involved in an Army contingency. The 82nd is a light unit with few tracked vehicles. Fort Bragg is also home to the North Carolina National Guard with its heavier military mission involving M-1 tanks.

Fort Bragg has had what is certainly the nation's most serious conflict between environmental priorities and the need for military training. Efforts to preserve the red-cockaded woodpecker (RCW), a listed species under the federal Endangered Species Act, have resulted in significant restrictions on military operations. As part of an effort to reduce restrictions, Fort Bragg recently acquired 10,546 acres of private land adjacent to the installation at a cost of approximately $30 million. The acquisition expands Bragg's RCW habitat, allowing additional environmental management options and possibly leading to greater flexibility for training on the remainder of the installation. However, the NEPA process for the acquisition did not include military activities, and additional analysis and documentation would be required to enable them.
Yakima

In conjunction with the development of the Yakima Firing Range as a regional training center for units at Fort Lewis, the Army acquired an additional 55,000 acres of maneuver training land in the early 1990s.

Orchard

The Orchard Training Area comprises 125,000 acres of land that is used by the Idaho National Guard. Use of the land is ensured by a series of agreements between the Guard and the federal Bureau of Land Management and state land management agencies.

The entire Orchard Training Center is located in an area classified as a National Conservation Area. Orchard’s efforts to monitor long-run environmental trends have led to the conclusion that ecological health would be improved by spreading training effects over a larger area. Orchard has therefore begun the process of acquiring up to an additional 40,000 acres by extending agreements with the relevant government agencies. The initiative is in the early stages and is currently awaiting Department of the Army approval before proceeding.

JRTC/Polk

Fort Polk is the home of the 2nd Armored Cavalry Regiment (ACR) and the Joint Readiness Training Center (JRTC). The Army role of the JRTC will be discussed in Figure 24.

The main post at Fort Polk consists of three contiguous blocks of land. The northern parcel contains 67,000 acres of Army land. Directly to the south is 40,000 acres of U.S. Forest Service Land that the Army has agreements to use and where Army activities take priority over traditional Forest Service multiple-use activities. Still further to the south is another 45,000 acres of Forest Service land where the Army has rights to conduct limited activities and where traditional

7Most of this discussion is based on information in the DRAFT Environmental Assessment for Increased Military Training Use of the Vernon Ranger District, Kisatchie National Forest, Fort Polk, Louisiana, February 1998.
Forest Service multiple-use activities take priority. This is referred to as a Low Use Area (LUA).

The current proposal is to modify the existing agreement in the LUA to increase the frequency of activities and to introduce six new activities that are currently prohibited. The reason for the initiative is that currently available land is not sufficient to meet doctrinal requirements. The new uses would be cross-country vehicle maneuvers, blackout driving, pyrotechnics, construction of hasty defensive systems, emplacement of obstacles, and establishment of support areas. The proposal would limit multiple-use activities to ensure that minimum Army training needs are fulfilled.

Fort Polk and the Forest Service issued an Environmental Assessment in February 1998.

Irwin/NTC

Fort Irwin is the home of the 11th ACR and the National Training Center (NTC), where force-on-force exercises can occur and be monitored and evaluated with the support of sophisticated instrumentation and expert control and evaluation methods. The NTC does not meet doctrinal requirements for full brigade operations and has been trying to acquire additional land for almost 15 years. Currently, brigade (–) operations, consisting of two battalions and brigade-level support units, are conducted at NTC. The major obstacles to the land expansion have been the need to protect the desert tortoise, which is a listed species under the Endangered Species Act, and the complicated land politics in the Mojave Desert. Additional background will be presented in Figure 33.

Kentucky

The Kentucky National Guard is attempting to purchase 10,000 acres of private land to supplement an 8,000-acre training area in western Kentucky. The Guard hopes to be able to perform battalion-level tank maneuvers. It is interesting to note that 18,000 acres would be approximately a factor of three smaller than required by official Army doctrine (TC 25-1) for conducting tank battalion maneuvers.

The initiative will be paid for from state funds.
Hawaii
This is an initiative to purchase approximately 8,000 of acres of land that is currently leased by the Army's Schofield Barracks.

McGregor
The McGregor Range constitutes approximately 700,000 of Fort Bliss's 1,200,000 acres. 600,000 acres of McGregor were withdrawn under Public Law 99-606. Fort Bliss has prepared a draft Environmental Impact Statement (EIS) and an application for renewal of the range. Congress must renew the range by 2001 or it will revert to the public domain. The local Bureau of Land Management office favors the return of about 270,000 acres to BLM management. Public meetings have been sparsely attended, and the community has not voiced any significant support for such a return.

McGregor is the Army's primary land area used for training air defense units. It is also used for the joint and international annual Roving Sands exercise, which has the goal of insuring interoperability among different air defense units.

As this document was going to press, the Senate had approved language authorizing a 50-year renewal of McGregor.

Alaskan Ranges
More than 800,000 acres at Forts Wainwright and Greely were also withdrawn under Public Law 99-606, and the Army has prepared a draft EIS and a renewal application for congressional consideration. Army officials reported "no public or agency concerns expressed during scoping which could be detrimental to withdrawal renewal." The Alaska ranges are the primary training area for the 172nd Infantry Brigade and are the national centers for Arctic training.
The U.S. Air force has failed to issue a promised assessment of its national training needs because such a report would show the proposed bombing range is unnecessary.

Figure 8

Figure 8 provides a graphic illustration of the political controversy that military land issues can arouse. It reemphasizes the political significance of having a comprehensive national strategy. The figure is a reproduction of a full-page advertisement from the September 30, 1994, Western Edition of the New York Times. The ad was sponsored by a consortium of groups trying to block U.S. Air Force plans to build a 25,000-acre bombing range on public lands near Mountain Home Air Force Base in Idaho. The consortium consisted of an unusual mix of ranchers, environmentalists, Native Americans, and others bound by a common desire to block Air Force plans for the new range. We describe this initiative in greater detail in Figure 33.

While the banner headline highlights the emotional reaction, the highlighted text suggests a more thoughtful analytical critique. It suggests that had the Air Force developed a national needs assessment, the new bombing range would not have been necessary. The
critics argued that national Air Force resources could offset local needs.

The critique displayed in Figure 8 has been applied to the Army as well and reaffirmed in studies by several government agencies. These studies offered the following criticisms of Army land policy:

1. The Army does not consider “Army-wide” land when considering the needs at individual installations.
2. Land shortages are rarely cited as a factor inhibiting readiness.
3. Current land initiatives (Figure 7) appear to be driven by “targets of opportunity” rather than a rational set of “Army-wide” priorities.

Each has an implication similar to the critique offered in the caption highlighted in Figure 8: the Army needs to analyze land requirements at a national level. The first and third comments point to assessment in the context of all Army land resources, while the second comment calls for embedding land strategy within an overall Army training strategy.

We again emphasize that these arguments represent a critique of current Army and military land policies. We will analyze the validity of this critique in the second half of this report.

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9"Target of opportunity" was used by the GAO and the Army Audit Agency. It refers to seeking land when it can be acquired as opposed to when it is needed. Its meaning is therefore similar to our use of the term “land grab.”
Figure 9 provides an additional reason why the Department of Defense should have a coherent explanation of its national land use strategy. The status of approximately 30 percent of the DoD land base will be reviewed by Congress in conjunction with the expiration of the land withdrawals specified in Public Law 99-606. About 15 percent of the Army’s 12 million acres are included in 99-606. This law withdrew six major parcels from the public domain in 1986 for a period of 15 years: Fort Greely, Fort Wainwright, the Nellis Range, the Goldwater Range (Arizona), the Bravo 20 Range at Fallon Naval Air Station (Nevada), and the McGregor Range. At the time this document was going to press, the Senate had passed a 50-year renewal for McGregor. They are all relatively isolated in regions with low population density.
The renewal of these lands is an important legislative priority for the Department of Defense. The three military services have initiated the processes to develop Draft Legislative Environmental Impact Statements (DLEIS) required by the 1986 legislation as a prerequisite for renewal.

Figure 9 also suggests that congressional action related to 99-606 renewals could coincide with another BRAC round. Congress has refused several requests from the Secretary of Defense for additional rounds of BRAC, but there is a general feeling that another BRAC will occur in the not-too-distant future.

The combination of BRAC, 99-606 renewals, and individual initiatives requiring congressional approval (all withdrawals of land more than 5,000 acres) could imply a broad-based review of the DoD basing structure early in the next century. The DoD will want to be able to explain its strategy for making land decisions and be able to answer charges that its strategy is more than just a series of “land grabs” or acquisitions by “target of opportunity.”

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10BLM could refuse to accept the lands if they cannot be decontaminated. Although 99-606 is not explicit, we assume that DoD would then be obligated to continue holding the lands. Congress could of course alter this with new legislation.
Do Internal Organizational Boundaries Produce “Land Grabs”?  

- Intense competition for land  
- Upcoming congressional reviews  
  - P.L. 99-606  
  - BRAC  
  - Individual initiatives  
- Aggregate underutilization, installation land initiatives  
- Critics charge failure to optimize across land base

Figure 10

Figure 10 summarizes the preceding “strawman” arguments. The figure title repeats the central question of the briefing.

There is now intense competition for land. Efforts to expand the military land base, or even maintain it, are subject to close scrutiny and judged in political processes where internal DoD organizational boundaries are of only minor importance. DoD is typically viewed as a single user of a single resource, and Army policies may be evaluated in the context of that resource.

Criticism of DoD land strategy could be important as Congress considers issues that, taken together, could comprise a review of DoD’s entire basing structure. DoD must reconcile the appearance of aggregate underutilization, as illustrated in Figure 6, with requests for additional land. It will need to respond to criticism that current land policy is a set of scattered initiatives driven by internal organizational boundaries that preclude optimization.
This leads to our central policy question. We seek to determine whether internal DoD organizational boundaries, which have little importance in the political arena of public land, produce a situation where the actions of individual Army installations are inconsistent with overall land needs. Do they lead to efforts to acquire land where there is no military need?