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BRIEFING

Ensuring That Army Infrastructure Meets Strategic Needs

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Prepared for the United States Army

RAND ARROYO CENTER

The research described in this report was sponsored by the United States Army under Contract No. W74V8H-06-C-0001.

Published 2008 by the RAND Corporation
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Summary

This documented briefing discusses the results of a study that examined Department of Defense (DoD) and Army strategic documents to identify issues that affect the Army's infrastructure needs. It also reviews DoD- and Army-level installation planning documents to determine how well these issues are currently being addressed. Where gaps exist, it identifies areas that should be included in strategic planning activities to ensure that the Army's infrastructure meets current and future needs. Finally, it discusses the types of data that would be needed to assess projected demand for and supply of infrastructure, existing sources of these data, and areas where additional data collection efforts may be needed.

Implications of DoD and Army Strategic Plans and Initiatives

We first examined national strategic-level documents, including the *National Security Strategy*, the *National Defense Strategy*, and the *National Military Strategy*. These documents have all been revised in the last five years to reflect changes in the international security environment since the terrorist attacks of September 11, 2001. Trends that are likely to affect the Army's infrastructure needs are a continuing high pace of deployment; uncertainty about when, where, and for what purpose forces will be deployed; rotation of forces to cover extended operations; a need to sustain forces in distant, austere environments; and continuing joint, interagency, and multinational operations. At home, there is an increased emphasis on force protection and security, as well as providing support to civilian authorities in national emergencies.

The changes in national strategic documents are reflected in other DoD and Army planning documents and initiatives that have more direct implications for infrastructure and stationing. The Global Defense Posture Review (GDPR) moves forces from long-established bases in Europe and Asia back to the United States and envisions shorter rotations of forces to more austere Forward Operating Sites. To support sustained deployed operations, the Army is developing more modular tactical organizations, establishing unit rotation cycles under the Army Force Generation Model (ARFORGEN), and stabilizing the assignment of soldiers to units during rotation cycles. Specific implications for installations include requirements for access to strategic lift and improved connectivity to support mission planning and situational awareness, reachback operations, education, and communication with families.

In addition to supporting these initiatives, Army installations must implement the recommendations of the 2005 Base Realignment and Closure (BRAC) Commission by 2011. The Army's BRAC proposals integrated the stationing of new modular brigades as well as the return of overseas units. Other recommendations affecting the Army include the consolidation of training centers and schools; relocation of Forces Command, Training and

Doctrine Command, and Army Materiel Command headquarters; and movement of support activities out of leased office space in the Washington, D.C., region onto installations.

As a result of GDPR, BRAC, and the transformation to modular brigades, the Army will be moving about 150,000 military and civilian positions over the next five to six years, mostly onto U.S. installations. The military construction funding needed to build operational facilities is estimated at $4 billion, not including community and morale, welfare, and recreation facilities needed to support soldiers and their families.

These initiatives also have implications for the Army's use of its training land and ranges. The location of additional units on U.S. installations is likely to result in more intensive use of existing training capacity. The *Army Modernization Plan* emphasizes the importance of Live-Virtual-Constructive training, which requires connectivity between training institutions, home stations, combat training centers, and deployed units. New weapon systems, such as the Future Combat System and Unmanned Aerial Vehicle systems, will likely require additional training space and facilities.

We also examined the implications of strategic documents on homeland security for Army installations. DoD missions related to homeland security include homeland defense (protecting the U.S. against external threats) and defense support of civil authorities, such as responding to terrorist incidents and natural disasters. Although most of the infrastructure and stationing implications of these documents overlap those of the *National Defense Strategy* and *National Military Strategy*, they place additional emphasis on some areas, such as force protection, mission assurance, and training requirements for dual-capable forces intended to support both domestic emergency and warfighting missions.

Mapping to Installation Strategic Plans

The *Defense Installations Strategic Plan* and the *Army Installation Strategic Plan* echoed some of the themes identified in the DoD and Army strategic documents.[1] These included the implications of more joint service operations and coordination, anti-terrorism and force protection concerns, and the quality of facilities and services, including housing and community facilities. The installation strategic plans also emphasized management issues that are not included in DoD and Army strategic documents. These included sustainability and sound natural resource management; the need to maintain and renovate installation assets on a limited budget; compliance with common standards and metrics; and greater collaboration and interaction with organizations outside the installation fence-line. Some of these issues, such as preventing encroachment that causes testing and training restrictions and implementing ecosystem management to address threatened and endangered species problems, are strategic for Army installations but are not mentioned in DoD and Army strategic documents.

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[1] Individual Army installations also develop their own installation strategic plans. However, the focus of this study was on DoD and Army guidance for installation strategic plans rather than on individual installation strategic plans.

However, in some ways the *Defense Installations Strategic Plan* and the *Army Installation Strategic Plan* are not truly strategic. They tend to focus on current problems and known changes over the next five to six years. It is also unclear how installations will be able to meet the goals outlined in the plans within currently planned budgets.

Some installations are undertaking long-term strategic planning efforts called installation sustainability plans. These plans focus on creating sustainable, enduring installations by addressing mission, community, and environmental issues. The planning process involves setting goals and objectives over a 20- to 25-year horizon. However, initial plans have mostly focused on environmental issues and are not addressing quality of life or master planning issues as thoroughly. They also vary in focus and scope. They could benefit from some higher-level guidance on issues to be addressed and a broader perspective that includes common needs and potential synergies across installations.

Several of the installation-related implications of DoD and Army strategic documents and initiatives did not seem to be fully addressed by the *Defense Installations Strategic Plan* and the *Army Installation Strategic Plan*. These included

- more specific guidance on accommodating expected changes in stationing, such as long-term planning impacts of siting new facilities, maintaining quality of life for soldiers and families, and facilities needed at new Forward Operating Sites and Cooperative Security Locations envisioned by GDPR
- infrastructure needed to support more frequent deployments, such as access to strategic lift, loading and unloading capabilities, connectivity to deployed forces, and family support services
- implications of increased joint training and introduction of new technology for training space and facilities.

Most of the changes foreseen by DoD and Army strategic documents and initiatives will be completed in the next five to ten years. Over a longer time horizon, hedging against uncertainty and risk becomes more important. Hence, it is important for the Army to consider the assumptions that underpin current policies, particularly those associated with the demand for infrastructure and its supply. Since strategy can change more quickly than infrastructure, installations should retain sufficient capacity to be able to respond to changes in conditions.

Issues for Infrastructure Planning

There are a number of areas that should be included in strategic infrastructure planning to help the Army ensure that its installations and infrastructure meet its current and future strategic needs. The following issues do not appear to be fully incorporated into strategic infrastructure planning efforts:

- identifying the implications of modularity, ARFORGEN, and GDPR on the infrastructure needed to support deployments
- assessing current and future training capacity and the need for additional training land and ranges to (1) accommodate changes due to modularity, ARFORGEN, GDPR, and BRAC, (2) support more joint training, and (3) address the implications of new technology
- analyzing long-term infrastructure risks and uncertainties that the Army or DoD should hedge against
- developing innovative approaches to maintain quality of life for soldiers and their families, such as public/private or Army/community partnerships
- examining the infrastructure required to support operational capabilities and quality of life at the Forward Operating Sites and Cooperative Security Locations envisioned by GDPR
- evaluating the sustainability of current and planned training range usage
- identifying other federal lands with similar ecosystems and species to those found on Army bases to relieve environmental pressures
- conducting an analysis of farmland near Army bases that could be preserved as buffer space
- assessing installation sustainability plans and developing strategic guidance to enhance them.

Data Collection and Metrics

Generally speaking, there are several broad categories of data that are needed to assess these strategic issues and incorporate them into strategic infrastructure planning. First, operational data are needed on the types of units stationed at each installation, their equipment and personnel, and their expected levels of activity. These operational data can be related to requirements for infrastructure based on planning factors, such as the area of land needed to conduct a training event. Second, data on the current availability and quality of Army infrastructure are needed to determine whether requirements are being met and where gaps exist. Third, data on the capital and operating costs of various types of infrastructure are needed to evaluate the cost implications of alternative approaches to meeting infrastructure requirements. Fourth, data on the use of and satisfaction with family and community facilities and services are needed to gauge the effectiveness of these services. A fifth type of data involves land use and environmental conditions, such as the location of threatened and endangered species and their habitats, both on Army installations and on other land with similar habitats. Lastly, data are needed about installation, community, and industry sustainability approaches and practices.

Most of these data are currently available in some form or another, but they are scattered across multiple data sources managed by a variety of Army and external

organizations. In some cases, information is gathered into centralized databases, but in others, it would need to be collected from each installation or from multiple documents or organizations. Some types of operational data, such as the size of training areas that will be needed by new weapon systems, as well as environmental data for non-Army lands, appear to be particularly difficult to obtain.

Even when centralized data sources exist, related data may be spread across multiple systems or entered separately into more than one system, creating the potential for discrepancies and the need for data users to reconcile conflicting sources. Databases may be updated on different schedules, so it can be difficult to establish a common baseline. Planning factors may need to be reviewed to ensure that they reflect ongoing changes. A more integrated data collection system, based on standardized data definitions and updated more frequently (or even continuously), would help the Army better manage its infrastructure.

Conclusions

The Army's installations face both short-term and long-term challenges in adapting to changes in the strategic environment and responding to DoD and Army initiatives. Over the next five to six years, installations will need to accommodate changes in stationing and training schedules due to modularity, GDPR, ARFORGEN, and BRAC. Over the longer term, installations will need to be able to support more frequent deployments, adapt the use of training land and facilities to meet the needs of new technology and more joint training, and respond to encroachment and environmental challenges, such as addressing pressure due to growth in surrounding communities and preserving cultural and natural resources. In addition, the Army should consider what long-term risks and uncertainties could affect the future demand or supply of Army infrastructure and how best to hedge against these risks.

Since many of these issues cut across Army lines of responsibility, the office of the Deputy Assistant Secretary of the Army for Strategic Infrastructure could play an important role in coordinating strategic planning efforts to ensure that Army infrastructure meets current and future needs. It can also be a proponent for more integrated, accurate, and timely infrastructure databases that are needed to assess long-term infrastructure issues.