

Federal Funding of Transportation Improvements in BRAC Cases

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The Defense Base Closure and Realignment Commission (BRAC) is designed to provide an apolitical process for the timely closure and realignment of military installations in the United States. Previous decisions under the law primarily closed bases, but BRAC 2005 has increased the number of on-base personnel, military families, and defense-related contractors at or near 18 military bases, several in major metropolitan areas with traffic problems.

According to the findings of a study published by the Transportation Research Board (TRB) as Special Report 302, *Federal Funding of Transportation Improvements in BRAC Cases*, the time period for fully implementing the BRAC decisions—by September 2011—is too short to avoid significant additional traffic congestion for military personnel and other commuters during peak travel periods. A Congressional amendment to the Fiscal Year 2010 defense appropriations requested the study, and the National Research Council of the National Academies appointed the study committee under the auspices of TRB (see box, page 44).

The committee recommends that just as private developers must pay impact fees for improvements to access their sites, the U.S. Department of Defense (DoD) should accept more financial responsibility for resolving transportation problems related to growth on military bases in metropolitan areas. Similarly, communities that benefit economically from the presence of military bases should pay their share of the needed transportation improvements.

Issue

BRAC 2005 concentrates tens of thousands of additional personnel at several bases, some in metropolitan areas with transportation infrastructure that is already congested. The law stipulates that the BRAC realignments must be completed by September 15, 2011; because personnel will arrive as soon as the bases are readied, community changes will be rapid.

In limited circumstances, the criteria of the Defense Access Roads (DAR) program apply, and DoD provides funding for roadway improvements. For the most part, however, DoD considers state and

The Defense Base Closure and Realignment Commission (BRAC) increased the number of military personnel, families, and contractors on 18 bases; many are returning from overseas assignments. In metropolitan areas, the impacts on transportation systems may be severe, and sources of funding for expansion and upgrades are yet to be identified.



PHOTO: ANTHONY SANCHELLI, U.S. AIR FORCE

Improvements to roads in southern Fairfax County, Virginia, have been under way to add capacity for the nearly 20,000 military and civilian personnel scheduled to arrive at Fort Belvoir under the base realignment plan.



PHOTO: VIRGINIA DOT

local authorities responsible for addressing the increases in traffic attributable to military expansion.

Challenges

In BRAC cases, state and local jurisdictions must cope with the following challenges:

- ◆ The rapid pace of traffic growth on heavily used facilities, particularly in urbanized areas with limited options for expansion;
- ◆ The lengthy process for evaluating the environmental impact of projects and for including them in state and regional transportation plans;
- ◆ The intense competition among state and local projects for available federal and state aid for capacity enhancements; and
- ◆ The general shortage of available state and local funds.

Moreover, the normal length of time for developing highway and transit projects—from the planning and environmental processes through construction—is 9 years at best, and usually 15 to 20 years.

DoD has a limited view of its responsibilities for off-base transportation facilities. The only DoD pro-

Fort Belvoir is located south of a busy highway interchange in the metropolitan Washington, D.C., area. Overcrowded roads and a lack of transit options lead to a problematic traffic outlook under the BRAC consolidations.

gram that can assist in funding transportation infrastructure off the base—the DAR program—is inadequate for base expansion in built-up areas. Eligibility for the program is determined by several criteria, including the doubling of traffic—which is impossible for metropolitan area facilities that already are congested.

Otherwise, under DoD policy, local and state authorities are responsible for off-base transportation facilities, even if DoD decisions increase congestion; this policy, however, is unrealistic for congested metropolitan transportation networks. In addition, off-base projects compete poorly in the military construction budget, which also funds the higher priorities of base commanders for on-base facilities. Finally, DAR is limited to road projects, yet transit expansion is often necessary to serve some travel demand in congested metropolitan areas.

Recommendations

The committee's recommendations to ameliorate the specific problems caused by BRAC 2005 during the next few years include the following:

- ◆ DoD should accept more financial responsibility for the traffic problems that it causes;
- ◆ The DAR program should adopt an impact fee approach in metropolitan areas affected by base expansion instead of providing funds only if traffic doubles;
- ◆ DoD should fund transit services needed for bases in metropolitan areas;
- ◆ Communities that benefit economically from the military should pay their share;
- ◆ The military and affected communities should improve communication, coordination, and planning for infrastructure projects, working through the ongoing urban transportation planning process carried out by metropolitan planning organizations; and
- ◆ Congress should consider a special appropriation or a reallocation of stimulus funds to pay for near-term improvements in the communities most severely affected by BRAC 2005.

Case Studies

The committee developed case studies of six bases for which BRAC 2005 decisions and other military actions are affecting or will affect traffic congestion significantly in the surrounding communities. The committee selected the cases for their diverse circumstances, the projected impact on civil transportation networks, and the gaps in funding to address the problems.

The case studies made clear that the BRAC consolidations, other sources of military growth at the



bases, and personnel returning from two wars are causing severe transportation problems. These problems will play out in many areas in the next few years.

Although the committee cannot predict the consequences, congestion could be sufficiently severe to affect the military and surrounding communities negatively by preventing personnel from reaching work within acceptable commute times. In contrast, one case study implied that in smaller jurisdictions with land available, transportation improvement plans are less controversial, and individuals on the military and civilian sides have worked together to anticipate and address capacity problems.

Fort Belvoir

Fort Belvoir is a single base that includes three non-contiguous geographic areas in Northern Virginia. Already the single largest employer in Fairfax County, Fort Belvoir will house more workers than the Pentagon after the BRAC consolidations.

According to the case study, many thousands of military and civilian employees are being moved from employment areas near the center of the region, served by well-developed highway and transit networks, to more remote locations in which competitive transit service is virtually impossible to achieve; moreover, most employees travel in single-occupant cars. Transportation facilities serving the Fort Belvoir area already are overloaded and are experiencing severe congestion.

National Naval Medical Center

The National Naval Medical Center (NNMC) in Bethesda, Maryland, is located in a densely populated, unincorporated area of Montgomery County. The center houses approximately 70,000 workers during the day, including 18,000 at the adjacent National Institutes of Health (NIH).

According to the report, the consequences for the saturated roads serving NNMC and other commuters could be severe. Increasing the throughput of the major arteries serving NNMC by adding lanes is out of the question because of cost and environmental impact, but even improving all critical intersections with additional turn-lane capacity is unfunded.

Also unfunded is an enhancement to the nearby Metrorail station that would deflect thousands of new transit users from crossing a major artery serving NIH and NNMC and causing additional delays. Overly ambitious plans for mode shifts are unlikely to work as well as intended.

Fort Meade

Fort Meade is located in Anne Arundel County,

approximately equidistant between Baltimore, Maryland, and Washington, D.C. More than 40,000 military and civilian employees and private contractors work at the site, which contributes \$4 billion annually to the Maryland economy.

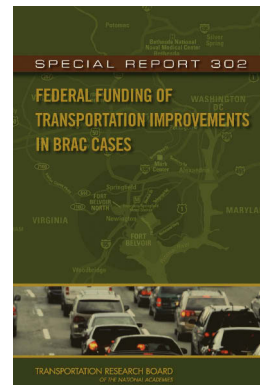
At Fort Meade, significant numbers of office workers are being moved from locations near the center of the region, which offers comparatively good transit service, to more remote locations with less extensive and rarely used transit service. The majority of workers will rely on private cars, clogging roads already strained under commuter traffic.

Planners have identified road improvements to alleviate some of these problems, but these remain mostly unfunded. Planners also project aggressive demand management programs—although these are important to the congestion management strategy, the goals are difficult to achieve because of Fort Meade's location.

Joint Base Lewis–McChord

Joint Base Lewis–McChord (JBLM) is located near South Puget Sound in Washington State and supports a population of more than 130,000 on base and in neighboring communities, including military personnel, families, and civilian and contract employees. The highway network serving the base depends heavily on Interstate 5 and operates at capacity. Expanding I-5 in the base corridor would cost an estimated \$1 billion, but funding is not available.

Demand management measures are already in use for the civilian workforce at JBLM—carpooling, for example, is common—but these measures are less likely to be practical for the soldiers on an operating base of such size and complexity. JBLM



Special Report 302, *Federal Funding of Transportation Improvements in BRAC Cases*, is available from the TRB Bookstore at www.trb.org/Finance/Public/Bookstore.aspx; to view the book online, go to <http://onlinepubs.trb.org/onlinepubs/sr/sr302.pdf>.

Interstate 5, serving Joint Base Lewis–McChord in Washington State, is at capacity and often experiences traffic problems, but the estimated \$1 billion needed for expansion is not available.



PHOTO: WASHINGTON STATE DOT

U.S. Secretary of Defense Robert M. Gates (*center*) tours new barracks under construction in 2008 at Fort Bliss, Texas, which has added 2,000 to 3,000 soldiers per year since 2006. The base, community, and state have worked together to implement transportation solutions.



PHOTO: CHERRY CULLEN, DEPARTMENT OF DEFENSE

depends almost totally on I-5, which is experiencing increases in stop-and-go operations, compounding delays and safety problems with backups and the loss of lane capacity.

Eglin Air Force Base

Eglin Air Force Base (AFB), located in Okaloosa County, Florida, is the largest AFB in the world, with approximately 16,500 military personnel and 4,500 civilian workers. The base expansion will significantly congest the only north-south state road in Okaloosa County, SR-85, and may disrupt travel on an east-west U.S. route that is important to the area's tourist economy.

The base is vital to the region, and the expansion will increase its importance. The state's concurrency law, however, limits development when infrastructure service levels decline below an acceptable standard. This will impede economic development until the highway is improved, and funding for improvements has not been secured. This could be harmful to the military's mission, because additional off-base housing

and new business development to support base expansion cannot be approved until SR-85 is expanded.

Fort Bliss

Fort Bliss in northeast El Paso, Texas, is the fastest-growing U.S. Army installation in the United States. The base has added 2,000 to 3,000 soldiers annually since 2006, for a 2009 total of roughly 19,000 soldiers, 29,000 dependents, 3,000 civilian workers, and 2,000 private contractors.

Although transportation improvements are needed in and around El Paso, Fort Bliss provides a counterexample to the other cases examined. A significant new segment of highway needed to support base expansion was identified early in the BRAC 2005 process, and the state and community found a way to fund the project, complete environmental reviews, and begin construction before all of the new soldiers and dependents arrive in 2012.

Completion of the project is expected in winter 2011. The case shows how base growth can be accommodated when a community and state are committed to support the project, and land is available for capacity expansion.

Committee for a Study on Federal Funding of Transportation Improvements in Base Realignment and Closure (BRAC) Cases

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Communication and Planning

Resolving metropolitan area transportation congestion problems is complex and expensive. The additional travel demand caused by BRAC 2005 on congested routes serving bases cannot be accommodated in a few months or a few years. Over time, delays can be eased, but greater DoD funding, realigned metropolitan area priorities, and better communication between base commanders and civilian authorities will be required. Adoption of the committee's recommendations to improve base-community communication and planning will help avoid future problems caused by rapid growth in personnel at military bases.