

March 2009

# DEFENSE INFRASTRUCTURE

## DOD Needs to Periodically Review Support Standards and Costs at Joint Bases and Better Inform Congress of Facility Sustainment Funding Uses



GAO

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Highlights of [GAO-09-336](#), a report to congressional committees

## Why GAO Did This Study

The 2005 Defense Base Closure and Realignment Commission recommended that the Department of Defense (DOD) establish 12 joint bases by consolidating the management and support of 26 separate installations, potentially saving \$2.3 billion over 20 years. In response to a direction from the House Armed Services Committee report accompanying the National Defense Authorization Act for Fiscal Year 2009, GAO evaluated DOD's (1) efforts and expected costs to deliver installation support at joint bases and (2) funding for facility sustainment, which includes the maintenance and repair activities necessary to keep facilities in good working order, at all installations. GAO compared new support standards with the current support levels, visited nine installations that will become four joint bases, and compared facility sustainment funding levels with requirements and goals.

## What GAO Recommends

GAO recommends that DOD (1) periodically review the newly established installation support standards and joint base administrative costs to help ensure economies and efficiencies and (2) report to Congress on the estimated installation support costs at the joint bases and on facility sustainment funds used for other purposes. DOD partially agreed with the recommendations but did not indicate that it would take steps to fully implement them. GAO believes that DOD needs to take additional actions to fully implement the recommendations.

To view the full product, including the scope and methodology, [click on GAO-09-336](#). For more information, contact Brian J. Lepore at (202) 512-4523 or [leporeb@gao.gov](mailto:leporeb@gao.gov).

## DEFENSE INFRASTRUCTURE

### DOD Needs to Periodically Review Support Standards and Costs at Joint Bases and Better Inform Congress of Facility Sustainment Funding Uses

#### What GAO Found

DOD has made a comprehensive effort to ensure consistent delivery of installation support at the planned joint bases, but the cost of installation support is expected to increase rather than decrease as forecasted by the 2005 Defense Base Closure and Realignment Commission. In January 2008, DOD began issuing joint base implementation guidance that for the first time established a set of common definitions and standards for installation support. The guidance defined 47 installation support areas (e.g., airfield operations, grounds maintenance, custodial services, and child and youth programs) and provided 267 standards to define the expected level of service in each area. DOD officials stated that the standards represented the service levels needed to meet mission and personnel requirements in view of DOD policies and guidance, commercial standards, other federal agency guidance, or in some cases, military judgment. However, contrary to the expectations of the commission, for two primary reasons installation support costs at the joint bases are expected to increase above the cost of support provided by the separate installations before consolidation. First, DOD has required the joint bases to deliver installation support in accordance with the new standards even though the military services have not previously funded installation support in the amounts needed to meet each of the standards. GAO's comparison of 40 selected standards to the service levels currently provided at the nine installations it visited showed that on average service levels would have to increase to meet the standards in about 27 percent of the areas compared. Second, in some instances the services' approach to implementing joint basing will result in additional administrative costs and the loss of some existing installation support efficiencies. Although DOD officials stated that the increased support costs at the joint bases might be at least partially offset over time as experience is gained and new efficiencies are identified and adopted, it is unclear whether joint basing will result in actual savings.

The military services have not budgeted and spent sufficient funds to meet their facility sustainment requirements and goals and prevent facility deterioration at the installation level. Citing other budget priorities as the reason, the military services did not budget funds to meet about \$2.3 billion (9 percent) of their total facility sustainment requirements during fiscal years 2005 through 2008 and, according to DOD, needed sustainment work that is not performed may eventually result in damaged facilities, shortened facility service lives, and increased future costs for facility restoration. The services have further exacerbated the sustainment funding issue by using some budgeted sustainment funds for other purposes. During fiscal years 2006 through 2008, the military services used about \$2.6 billion (14 percent) of the funds budgeted for sustainment for other purposes, primarily to pay for unfunded facility restoration and modernization projects. Although service officials stated that these projects were needed, the consequence was that sustainment requirements were not met. During visits to nine installations, GAO found backlogs of deferred sustainment needs and some facilities that were not in good condition because funds were not available to pay for all needed sustainment work.

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## Abbreviations

BRAC	base realignment and closure
DOD	Department of Defense
OSD	Office of the Secretary of Defense

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United States Government Accountability Office  
Washington, DC 20548

March 30, 2009

## Congressional Committees

Estimating that \$2.3 billion could be saved over a 20-year period,<sup>1</sup> the 2005 Defense Base Closure and Realignment (BRAC) Commission recommended that the Department of Defense (DOD) establish 12 joint bases by consolidating the management and support of 26 separate Army, Navy, Air Force, and Marine Corps installations.<sup>2</sup> The commission noted that, because all installations perform common functions in support of installation personnel and facilities and because these installations shared a common boundary or were in close proximity, the joint bases could reduce duplication of efforts and achieve greater efficiencies through economies of scale, which could result in significant long-term savings in installation support costs.<sup>3</sup> For each of the joint bases, the commission designated which military service would become the lead component with responsibility for delivering installation support services for the consolidated base. This arrangement—with one military service assuming responsibility for supporting another military service's installation—created concerns about the delivery of installation support at the joint bases because DOD had not established common definitions and standards for installation support functions and services. Instead, each military service had its own long-standing policies and practices on how each installation support function was defined and the level of service typically provided in each area. In view of the differences, it was not clear that the joint bases, scheduled to be fully implemented by October 2010,

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<sup>1</sup>The 20-year savings estimate, also known as the 20-year net present value, reflects constant fiscal year 2005 dollars (i.e., excludes projected inflation).

<sup>2</sup>Defense Base Closure and Realignment Commission, *2005 Base Closure and Realignment Commission Report to the President* (Arlington, Va.: Sept. 8, 2005).

<sup>3</sup>Installation support includes many diverse categories of services and support activities through which DOD manages and funds the life-cycle of its installations. For example, installation support includes installation airfield and port operations; base security; fire and emergency services; transportation; supply; communications; information management; personnel management; administrative, legal, and financial services; unaccompanied personnel housing management; food services; family and quality-of-life programs; environmental compliance activities; utilities; real property management; refuse collection and disposal; custodial services; grounds maintenance; and facilities sustainment, restoration, and modernization.

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would deliver installation support consistently and at a level considered acceptable by each of the installations combining into the joint bases.

One installation support area that has been of particular concern, not only at the planned joint bases but at all military installations, is facility sustainment, which includes the maintenance and repair necessary to keep facilities in good working order. DOD is one of the world's largest organizations in terms of physical plant, managing and operating about 545,000 buildings and structures with a total replacement value of about \$706 billion. DOD determined that the most cost-effective approach to managing its facilities is to fully fund sustainment requirements because this method provides the most performance over the longest period for the least investment. To implement this approach, DOD developed a facilities sustainment model that determines these requirements and established a goal that the military services budget for sustainment in accordance with the model. However, in an April 2008 report, we found that although DOD's model provided reasonable and consistent requirements estimates, the military services were not budgeting for sustainment in the amounts estimated by the model.<sup>4</sup> As a result, some installation facilities were not being sustained at a level to keep them in good working order and will likely experience reduced service lives, which in turn will lead to more costly recapitalization requirements in the future.

The House Armed Services Committee cited our 2008 report in its report accompanying the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009 and expressed concerns about the delivery of installation support across the joint bases and the adequacy of facility sustainment funding at all installations.<sup>5</sup> The committee directed that we perform an assessment of these areas. In response, this report evaluates DOD's (1) efforts and expected costs to deliver installation support at the planned joint bases and (2) funding for facility sustainment at all installations.

To address these areas, we (1) reviewed DOD implementation plans, guidance, and cost estimates associated with the delivery of installation support at the planned joint bases and compared the levels of service in selected support areas currently provided by the separate installations with the levels of service to be provided by the joint bases and

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<sup>4</sup>GAO, *Defense Infrastructure: Continued Management Attention Is Needed to Support Installation Facilities and Operations*, [GAO-08-502](#) (Washington, D.C.: Apr. 24, 2008).

<sup>5</sup>H.R. Rep. No. 110-652, at 524-525 (2008).

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(2) examined and compared DOD's requirements and goals for facility sustainment funding with the amounts actually budgeted and spent on sustainment. Also, to gain local-level insight into the planned delivery and expected costs of installation support at the joint bases as well as sustainment funding levels and facility conditions, we visited 3 Army, 3 Navy, and 3 Air Force installations that are consolidating into 4 of the 12 planned joint bases. We selected bases for visits that had the highest potential reduction in jobs according to DOD's 2005 BRAC report.<sup>6</sup> We conducted this performance audit from May 2008 through February 2009, in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. See appendix I for more information on our scope and methodology.

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## Results in Brief

DOD has made a comprehensive effort to ensure consistent delivery of installation support at the planned joint bases, but the cost of installation support at the joint bases is expected to increase rather than decrease as forecasted by the 2005 BRAC Commission. In January 2008, the Office of the Secretary of Defense (OSD) began issuing a series of joint basing implementation guidance that for the first time established a set of common definitions and standards for the installation support to be provided by each joint base. The guidance defined 47 installation support functions—such as installation security services, custodial services, and child care programs—and provided 267 standards to help define the level of service that each joint base is to provide in the support functions. OSD's guidance also required that the installations forming joint bases complete a memorandum of agreement defining the installation support relationship between the components forming the joint base for fully implementing the BRAC 2005 joint basing decisions, and that the lead component deliver installation support in accordance with the new definitions and standards. However, contrary to the expectations of the BRAC Commission, DOD officials stated that installation support costs at the joint bases are expected to increase, at least in the short term, above the cost of

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<sup>6</sup>Department of Defense, *Headquarters and Support Activities Joint Cross-Service Group Base Realignment and Closure Report*, Volume VII Final BRAC 2005 Report (May 10, 2005).

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installation support provided by the separate installations before consolidation. For example, at the three joint bases that had completed their agreements by January 2009, annual installation support costs are expected to increase by about \$24 million (7 percent) above current support costs. Increased support costs are expected for two primary reasons. First, OSD has required that the joint bases deliver installation support in accordance with the new support standards even though the military services have not previously funded installation support in the amounts needed to meet each of the standards. Our comparison of 40 selected standards to the service levels currently provided at the installations we visited showed that on average service levels would have to increase to meet the standards in about 27 percent of the areas compared. In some support areas, judgment was used to decide the standard level of service and, because support costs normally increase as the level of service increases, such decisions also involve trade-offs between alternative levels of service and affordability. Second, in some instances the military services' approach to implementing joint basing will result in additional administrative costs and the loss of some existing installation support efficiencies. In the long term, OSD and service headquarters officials stated that the increased cost of installation support at the joint bases might be at least partially offset as experience is gained and best practices and new operational efficiencies are identified and adopted over time. Nevertheless, the military services' estimate of the potential 20-year savings from joint basing has already declined about 88 percent from the amount estimated by the BRAC Commission in 2005—specifically, from \$2.3 billion estimated by the commission to about \$273 million estimated by the military services in fiscal year 2009 (in constant fiscal year 2005 dollars). On the basis of the higher installation support cost estimates from the initial joint bases and as long as installation support is delivered in accordance with the new standards, the military services' estimates of potential savings will likely continue to decline in the future and it is unclear whether joint basing will result in any actual savings.

The military services have not budgeted and spent sufficient funds to meet their facility sustainment requirements and goals and prevent facility deterioration at the installation level. Citing other budget priorities as the reason, the military services have not budgeted funds in the amounts needed to fully fund their sustainment requirements since budgeting goals were established in 2005. With a goal to budget for 100 percent of their facility sustainment requirement in fiscal year 2008, the Army budgeted 89 percent, the Navy budgeted 83 percent, the Air Force budgeted 90 percent, and the Marine Corps budgeted 89 percent of their respective sustainment



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requirements. In total for fiscal years 2005 through 2008, the military services did not budget funds to meet about \$2.3 billion (9 percent) of their total facility sustainment requirements, and according to DOD, needed sustainment work that is not performed may eventually result in damaged facilities, shortened facility service lives, and increased future costs for facility restoration. The military services have further exacerbated the sustainment funding issue by spending some budgeted sustainment funds for other purposes. During fiscal years 2006 through 2008, the military services used about \$2.6 billion (14 percent) of the funds budgeted for sustainment for other purposes, primarily to pay for unfunded facility restoration and modernization projects.<sup>7</sup> Although service officials stated that these projects were urgently needed, the consequence was that additional sustainment requirements were not met. Considering the levels budgeted for sustainment and the use of some sustainment funds for other purposes, the amount actually spent on facility sustainment at six of the nine installations we visited was less than 75 percent of the estimated requirement during fiscal years 2006 through 2008, and at three installations, the amount spent was less than 60 percent of the estimated requirement. As a result of less than full funding of sustainment requirements and the use of some sustainment funds for other purposes, the military services reported backlogs of deferred facility sustainment needs and some installation facilities had fallen into disrepair. As long as the military services do not budget sufficient funds to meet their facility sustainment requirements and use some budgeted sustainment funds for other purposes, some facilities will not be sustained at a level to keep them in good working order and will likely experience reduced service lives, which in turn will lead to more costly recapitalization requirements in the future.

We are making several recommendations to address the expected increased installation support costs from joint basing implementation and the use of facility sustainment funds for purposes other than sustainment. Specifically, we are recommending that DOD periodically review the installation support standards as experience is gained with delivering installation support at the joint bases and make adjustments, if needed, to ensure that each standard reflects the level of service necessary to meet

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<sup>7</sup>Compared to facility sustainment work, restoration and modernization work typically involves larger, more extensive projects that restore facilities degraded from several causes, such as natural disaster and fire, or renovate or replace facilities to achieve new standards, accommodate new functions, or replace building components that typically last more than 50 years.

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installation requirements as economically as possible; periodically review administrative costs as joint basing is implemented to minimize any additional costs and prevent the loss of existing installation support efficiencies; and complete a detailed analysis of the estimated installation support costs from the initial joint bases and report the results of the analysis to the Congress in the department's documents supporting the administration's annual budget submission or another document deemed appropriate. Also, to increase the attention given to facility sustainment spending, we are recommending that DOD summarize and report to the Congress the amount of budgeted sustainment funds spent on other purposes in the department's documents supporting the administration's annual budget submission or another document deemed appropriate. In written comments to a draft of this report, DOD partially agreed with our recommendations, but did not indicate that it would take additional steps to implement them. We continue to believe that DOD's actions to date related to the expected increase in joint bases support costs and the use of sustainment funds will not fully address the intent of our recommendations and that DOD needs to take additional actions to implement them, such as directing periodic reviews of installation support standards and reporting additional information to Congress. We discuss DOD's comments in detail later in this report.

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## Background

The 2005 BRAC Commission final report noted that all installations employ military, civilian, and contractor personnel to perform common functions in support of installation facilities and personnel and that all installations execute these functions using similar or near similar processes.<sup>8</sup> The report also noted that, in areas where the military services operated separate installations that share a common boundary or were in close proximity, there was significant opportunity to reduce duplication and costs by consolidating the installations. Specifically, the report stated that by consolidating nearby installations, savings in personnel and facilities costs could be realized by eliminating duplication of efforts, paring unnecessary management personnel, achieving greater efficiencies through economies of scale, consolidating and optimizing existing and future service contract requirements, establishing a single space management authority that could achieve greater utilization of facilities,

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<sup>8</sup>Defense Base Closure and Realignment Commission, *2005 Base Closure and Realignment Commission Report to the President* (Arlington, Va.: Sept. 8, 2005).

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and reducing the number of base support vehicles and equipment consistent with the size of the combined facilities.

The report recommended that DOD establish 12 joint bases from 26 existing installations and estimated that the net present value of the costs and savings from this effort over 20 years would be about \$2.3 billion. For each of the joint bases, the report designated which military service would become the lead component with responsibility for delivering installation support services for the consolidated base. To implement the recommendation, DOD established a schedule that divided the 12 planned joint bases into two implementation phases. Five joint bases involving 11 installations were placed into phase I with a September 30, 2008, milestone for signing a joint base memorandum of agreement, which would provide a detailed implementation plan including the personnel and financial arrangements for the combined base, and an October 1, 2009, milestone for full implementation, which included the transfer of personnel and funds to the joint base. The remaining 7 joint bases involving 15 installations were placed into phase II with a September 30, 2009, milestone for signing the joint base memorandum of agreement and an October 1, 2010, milestone for full implementation. Table 1 provides details on the planned joint bases.

**Table 1: DOD’s Planned 12 Joint Bases**

Name of joint base	Location	Implementation phase	Installations consolidating into the joint base	Component delivering installation support
Joint Base McGuire-Dix-Lakehurst	New Jersey	I	McGuire Air Force Base, Fort Dix, and Naval Air Engineering Station Lakehurst	Air Force
Joint Expeditionary Base Little Creek-Fort Story	Virginia	I	Naval Amphibious Base Little Creek and Fort Story	Navy
Joint Base Andrews-Naval Air Facility Washington	Maryland	I	Andrews Air Force Base and Naval Air Facility Washington	Air Force
Joint Base Myer-Henderson Hall	Virginia	I	Fort Myer and Henderson Hall	Army
Joint Region Marianas	Guam	I	Navy Base Guam and Andersen Air Force Base	Navy
Joint Base Lewis-McChord	Washington	II	Fort Lewis and McChord Air Force Base	Army
Joint Base Charleston	South Carolina	II	Charleston Air Force Base and Naval Weapons Station Charleston	Air Force
Joint Base Langley-Eustis	Virginia	II	Langley Air Force Base and Fort Eustis	Air Force
Joint Base Pearl Harbor-Hickam	Hawaii	II	Naval Station Pearl Harbor and Hickam Air Force Base	Navy
Joint Base Elmendorf-Richardson	Alaska	II	Elmendorf Air Force Base and Fort Richardson	Air Force
Joint Base Lackland-Sam Houston-Randolph	Texas	II	Lackland Air Force Base, Fort Sam Houston, and Randolph Air Force Base	Air Force
Joint Base Anacostia-Bolling	District of Columbia	II	Naval District Washington and Bolling Air Force Base	Navy

Source: DOD.

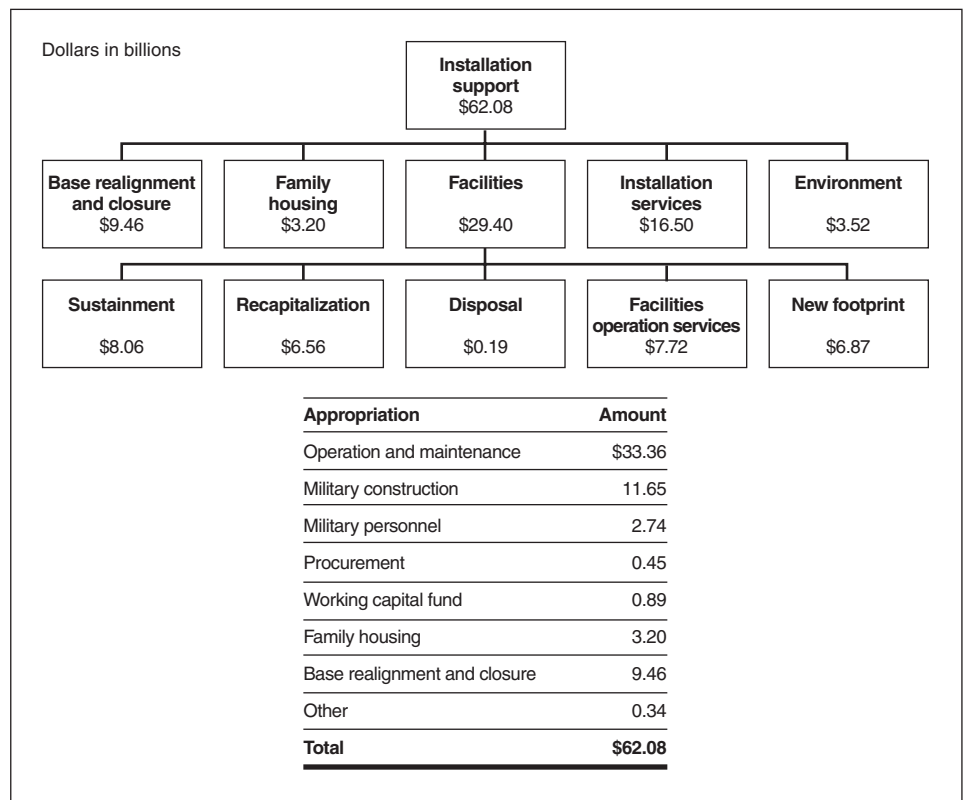
DOD officials stated that, although none of the phase I joint bases met the September 30, 2008, milestone for signing their memorandums of agreement, joint bases Myer-Henderson Hall, Andrews-Naval Air Facility Washington, and Little Creek-Fort Story had signed agreements by January 2009. The officials stated that Joint Base McGuire-Dix-Lakehurst and Joint Region Marianas are expected to sign agreements later in 2009 and all phase I joint bases are still expected to meet the October 1, 2009, milestone for full implementation.

## Installation Responsibilities and Support Funding

The Office of the Deputy Under Secretary of Defense for Installations and Environment has overall responsibility for DOD’s installations and facilities and by delegation has authority to approve and issue guidance for joint basing. DOD’s facilities portfolio includes about 545,000 buildings and structures worldwide with a total replacement value of about

\$706 billion. During fiscal year 2009, DOD plans to spend about \$62 billion to support its facilities and installations. DOD refers to this funding as installation support, which includes broad categories of services, programs, and support activities, as shown in figure 1.

**Figure 1: DOD's Budgeted Fiscal Year 2009 Funding for Installation Support**



Source: DOD.

Note: The Congress appropriates funds according to the categories listed under the appropriation heading, and DOD classifies funds for installation support according to the categories in the figure. The appropriation amounts do not total correctly due to rounding.

The largest categories of installation support are installation services and facilities. Installation services, funded primarily with operation and maintenance appropriations, includes the personnel, support equipment, contracts, and associated costs to plan, manage, and deliver installation services and functions, such as installation airfield and port operations; security; transportation; supply; communications; information management; personnel management; food services; administrative, legal,

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and financial services; unaccompanied personnel housing management; family and quality of life programs; and environmental compliance.

The facilities category is composed of five subcategories—facilities operation services, sustainment, recapitalization, disposal, and new footprint, which includes facility construction related to new or expanded missions.

- Facilities operation services, funded primarily with operation and maintenance appropriations, includes 10 facility-related services—fire and emergency services, utilities, pavement clearance, refuse collection and disposal, real property leases, grounds maintenance, pest control, custodial services, real property management and engineering services, and engineering readiness. DOD previously referred to facility operations as real property services and, together with installation services, family housing, and environment, were referred to as base operations support. In general, the military services’ budgets continue to refer to funding for installation services and facility operation services as base operations support funding.
- Sustainment, funded primarily with operation and maintenance appropriations, includes the maintenance and repair activities necessary to prevent deterioration, maintain safety, and keep facilities in good working order over their service lives. Sustainment includes routine and preventive maintenance tasks and emergency response and other service calls for minor repairs. Sustainment also includes major repairs or replacement of facility components that are expected to occur periodically throughout a facility’s life cycle, such as regular roof replacement; refinishing wall surfaces; repairing and replacing electrical, heating, and cooling systems; and replacing tile and carpets. Since fiscal year 2003, DOD has used a model—the facilities sustainment model—to estimate annual facility sustainment funding requirements in each military service. Although the Office of the Deputy Under Secretary of Defense for Installations and Environment has overall responsibility for DOD’s installations and facilities, the individual military services are responsible for budgeting and allocating facility sustainment funds to installations. Appendix II summarizes each service’s sustainment funding allocation process.
- Recapitalization, funded primarily with operation and maintenance and military construction appropriations, provides for improving facilities through restoration and modernization. Restoration includes repair and replacement work needed to restore facilities degraded from several causes, such as natural disaster, fire, accident, excessive

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age, or inadequate sustainment. Modernization includes both renovation and replacement of existing facilities to implement new or higher standards, accommodate new functions, or replace building components that typically last more than 50 years and are near the end of their economic lives.

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## Prior GAO Reports

Since 1997, we have identified management of DOD support infrastructure as a high-risk area because infrastructure costs have affected the department's ability to devote funds to other more critical programs and needs. In a January 2009 update to our high-risk series, we noted that although DOD has made progress in managing its support infrastructure in recent years, a number of challenges remain in managing its portfolio of facilities and reducing unneeded infrastructure while providing facilities needed to support several simultaneous force structure initiatives.<sup>9</sup> Further, we noted that because of these issues, DOD's management of support infrastructure remains a high-risk area.

We have issued several reports on DOD's implementation of the recommendations from the 2005 BRAC round. The reports generally found that, compared with the original cost and savings estimates, implementation costs were expected to increase and savings were expected to decrease. For example, in a December 2007 report,<sup>10</sup> we found that DOD planned to spend more, save less, and take longer to recoup up-front costs than expected to implement the 2005 BRAC recommendations due to increased construction cost estimates, the effects of inflation, environmental clean-up costs not accounted for in the original estimates, and other miscellaneous expenses including operation and maintenance expenses. We also found that DOD's estimated costs and savings to implement the recommendations were likely to change further due to uncertainties surrounding certain implementation details, potential increases in military construction costs, and likely increases in the cost of environmental cleanup for some BRAC properties. In a March 2008 report on two BRAC recommendations that were intended to improve DOD's logistics systems, we found that DOD would spend more, save less, and take longer than expected to recoup up-front costs to implement those recommendations due to the use of inaccurate or outdated data,

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<sup>9</sup>GAO, *High-Risk Series: An Update*, [GAO-09-271](#) (Washington, D.C.: January 2009).

<sup>10</sup>GAO, *Military Base Realignments and Closures: Cost Estimates Have Increased and Are Likely to Continue to Evolve*, [GAO-08-159](#) (Washington, D.C.: Dec. 11, 2007).

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misinterpretation of terms, and changes in operational requirements.<sup>11</sup> On January 30, 2009, we reported that while DOD has made progress in implementing the BRAC 2005 round, it faces challenges in its ability to meet the September 15, 2011, statutory completion deadline.<sup>12</sup> Further, DOD's fiscal year 2009 BRAC budget submission shows that DOD plans to spend more to implement recommendations and save slightly less compared to the 2008 BRAC budget and that the potential remains for BRAC cost estimates to continue to increase. DOD concurred with several recommendations from these reports on ways that DOD could improve its development of BRAC savings estimates.

We have also issued several reports over the past few years highlighting the long-term challenges DOD faces in managing its portfolio of installations and halting the degradation of facilities. For example, in February 2003, we found that funds designated for facilities sustainment were held back at the service headquarters, major command, and installation levels to cover more pressing needs or emerging requirements and that, as a result, facility deterioration continued.<sup>13</sup> DOD concurred with our recommendation that the military services reassess the funding priorities attached to sustaining and improving their facilities. In a June 2005 report, we found that DOD did not have a common framework for identifying installation support functions and funding requirements to ensure adequate delivery of services, particularly in a joint environment.<sup>14</sup> We also found that, because of a lack of a common terminology across the military services in defining installation support functions and the lack of a mature analytic process for developing credible and consistent requirements, the services moved hundreds of millions of operation and maintenance dollars designated for facilities sustainment and other purposes to pay for installation support services. While such funding

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<sup>11</sup>GAO, *Military Base Realignment and Closures: Higher Costs and Lower Savings Projected for Implementing Two Key Supply-Related BRAC Recommendations*, [GAO-08-315](#) (Washington, D.C.: Mar. 5, 2008).

<sup>12</sup>GAO, *Military Base Realignment and Closures: DOD Faces Challenges in Implementing Recommendations on Time and Is Not Consistently Updating Savings Estimates*, [GAO-09-217](#) (Washington, D.C.: Jan. 30, 2009).

<sup>13</sup>GAO, *Defense Infrastructure: Changes in Funding Priorities and Strategic Planning Needed to Improve the Condition of Military Facilities*, [GAO-03-274](#) (Washington, D.C.: Feb. 19, 2003).

<sup>14</sup>GAO, *Defense Infrastructure: Issues Need to Be Addressed in Managing and Funding Base Operations and Facilities Support*, [GAO-05-556](#) (Washington, D.C.: June 15, 2005).



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movements are permissible, we found that they were disruptive to the orderly provision of installation support and contributed to the overall degradation of facilities. In an April 2008 report, we found that the military services had not met all of DOD's goals for funding facility sustainment and recapitalization at levels to prevent deterioration and, because DOD continued to lack common definitions and performance standards for installation support functions, each military service had developed methods to determine its installation services requirements and funding needs subject to its own definition of the types and levels of services it deemed necessary.<sup>15</sup> We also found that DOD's facilities sustainment model provided a consistent and reasonable framework for preparing estimates of DOD's annual facility sustainment funding requirements, even though the reliability of the model's estimates could be improved through increased accuracy of the model's inputs. The 2005 and 2008 reports made recommendations related to resolving the inconsistencies among the military services' definitions of installation support functions and, with the joint basing guidance issued during 2008, DOD completed the development of common installation support definitions. DOD also concurred with recommendations from the 2008 report that it will take several actions to increase the facilities sustainment model's reliability.

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## DOD Has Made a Comprehensive Effort to Ensure Consistent Delivery of Installation Support at Joint Bases, but Support Costs Are Expected to Increase

DOD has made a comprehensive effort to ensure that the 12 planned joint bases deliver consistent installation support, but support costs are expected to increase, at least in the short term, rather than decrease as expected by the 2005 BRAC Commission. DOD's efforts to ensure consistent support have included the issuance of detailed guidance, which for the first time provided common installation support definitions and standards, and the establishment of mechanisms to help ensure that the joint bases comply with guidance requiring that the bases deliver installation support in accordance with the new definitions and standards. However, instead of decreasing, support costs at the joint bases are expected to increase primarily because past funding for installation support has been insufficient to provide support at the levels called for by either existing or the new common service standards, and in some instances the military services' approach to implementing joint basing will result in additional administrative costs and the loss of some existing installation support efficiencies. In the long term, DOD officials stated that the increased installation support costs might be at least partially offset as

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<sup>15</sup>See [GAO-08-502](#).

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best practices and new operational efficiencies are identified and adopted over time. However, on the basis of the higher installation support cost estimates from the initial joint bases and as long as installation support is delivered in accordance with the new support standards, it is unclear whether joint basing will result in any actual savings.

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### DOD Established Common Definitions and Standards to Help Ensure Consistent Delivery of Installation Support

Before January 2008, DOD had not established common definitions and standards for installation support functions and services. Instead, each military service had its own long-standing policies and practices on how tasks in each installation support function were defined, performed, and funded. The differences in the military services' policies and practices for managing their installations had resulted in differences in the emphasis placed on the various support areas and the level of service typically provided in each area. In view of such differences, it was not clear that the joint bases, scheduled to be fully implemented by October 2010, would deliver installation support services consistently and at levels considered acceptable by each of the installations combining into the joint bases.

To address this issue, OSD began issuing a series of joint basing implementation guidance in January 2008 that for the first time established a set of common definitions and standards for the installation support functions and services to be provided by each joint base.<sup>16</sup> After working with the military services to develop and obtain concurrence with the new definitions and standards, OSD issued guidance that defined 47 installation support functions—such as installation security services, custodial services, and child care programs—and provided 267 standards to help define the level of service that each joint base is to provide in each area. The guidance also required that only the joint bases deliver installation support in accordance with the new definitions and standards.<sup>17</sup> Thus, the vast majority of military installations that are not involved with joint basing are not required to deliver installation support in accordance with the new definitions and standards at this time.

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<sup>16</sup>Deputy Secretary of Defense Memorandum, *Transforming Through Base Realignment and Closure (BRAC) 2005 – Joint Basing* (Washington, D.C.: Jan. 22, 2008).

<sup>17</sup>The guidance provides a template memorandum of agreement that among other things commits the lead component to deliver installation support in accordance with the support standards. Although installations can request that OSD approve deviations from delivering support in accordance with each standard during development of the memorandums, OSD officials stated that no deviations were requested by the installations consolidating into the phase I joint bases.

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According to DOD, the new standards represented the service levels needed to fully meet installation mission, facility, and personnel needs in view of existing OSD and military service policies, guidance, and practices; commercial industry standards; guidance from other federal agencies; or military judgment. The standards include the following.

- About 62 percent of the standards, in areas such as fire protection and emergency services and airfield operations, were based on existing OSD and military service policies and requirements.
- About 13 percent of the standards, in areas such as custodial services and grounds maintenance and landscaping, were based on commercial industry standards or guidance from other federal agencies.
- About 25 percent of the standards, in areas such as installation chaplain services and legal support, were based on the judgment of military subject matter experts. According to DOD, the standards determined by military subject matter experts were in areas that were not covered by DOD policy or other requirements and did not have comparable commercial standards. To determine standards for these areas, the subject matter experts generally reviewed the practices of each military department and reached agreement on the service levels needed that in their judgment would best meet installation mission and personnel requirements. Judgment was used to decide the standard level of service in view of mission, facility, personnel, and quality of life factors. Also, because costs generally increase as the level of service increases, some of these decisions also involved the consideration of trade-offs between alternative levels of service and affordability.

Officials at OSD and each of the military services stated that the new common standards called for service levels that were very close to each military service's existing installation support standards or practices. However, the officials also noted that because installation support had not been fully funded in the past, military installations normally did not provide support at the levels called for by all of their existing standards.

The following examples illustrate a few of the installation support function definitions and standards that DOD established for joint basing, and appendix III provides a list of the 47 defined installation support functions and the number of standards developed for each area.

- Information technology services management was defined to include the personnel, contracts, and equipment necessary to plan, manage,

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coordinate, and execute the delivery of services including fixed and wireless voice, data, and video services. Twenty-six standards were established to define the expected level of service for this support function. For example, each joint base is to (1) maintain 99.99 percent telephone dial tone availability, (2) provide wireless local mobile radio service for 100 percent of the base's populated area and 85 percent of the total base area, (3) respond within 90 minutes to critical circuit outages 99 percent of the time, and (4) resolve 95 percent of nonmission critical trouble calls within 4 days.

- Installation law enforcement operations was defined to include the personnel, contracts, and support equipment necessary to enforce federal, state, and military law; investigate crimes; apprehend and detain suspects; manage traffic; and detect and prevent crime. Five standards were established to define the expected level of service for this support function. For example, within 15 minutes of a call the joint base is to provide the first law enforcement patrol response and within 30 days the joint base is to complete 90 percent of investigations.
- Grounds maintenance and landscaping was defined to include all associated landscaping and plant growth management activities for three defined land categories—improved, semi-improved, and unimproved. Three standards were established to define the expected level of service for this support function. For example, for improved land, which includes the grounds surrounding occupied buildings and permanent structures, the joint base is to maintain the grass height at 2 to 4 inches and accomplish necessary trimming, edging, pruning, and landscaping to maintain healthy vegetation and a professional appearance.
- Facilities sustainment, which DOD had previously defined, includes the maintenance and repair activities necessary to prevent deterioration, maintain safety, and keep facilities in good working order over their service lives. Seven standards were established to define the expected level of service for this support function. For example, the joint base is to (1) perform 90 percent of the preventive maintenance called for by manufacturers' recommendations, (2) replace 90 percent of facility components in accordance with each component's useful service life, (3) resolve 100 percent of emergency service calls within 24 hours, and (4) resolve 90 percent of routine service calls within 30 calendar days.

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Officials at the nine installations we visited stated that in general the definitions and standards adequately described the installation support functions and provided reasonable metrics so that the expected level of service in most areas was clearly understood. Installation officials stated that in some cases the standards were not as detailed or as clear as possible. Nevertheless, the officials stated that they recognized that the standards provided the first common expectations for installation support and believed that missing details and needed clarifications would be provided as the standards are implemented at the joint bases.

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### **DOD Has Taken Additional Steps to Help Ensure That Joint Bases Deliver Consistent Installation Support**

DOD has taken additional steps to help ensure that the joint bases will deliver installation support in accordance with the new installation support definitions and standards. First, OSD issued guidance that requires the installations forming each joint base to complete a memorandum of agreement that defines the installation support relationship between the components forming the joint base for fully implementing the BRAC 2005 joint base decisions. The guidance also provides a template memorandum of agreement that, among other things, commits the lead component to deliver installation support in accordance with the support definitions and standards. Although installations can request that OSD approve deviations from delivering support in accordance with each standard during development of the memorandums, OSD officials stated that no deviations were requested from the installations consolidating into the phase I joint bases. Second, to facilitate consistency in developing the memorandums, OSD officials stated that they held workshops and conducted visits to the installations involved in joint basing. Third, to ensure top management support for the terms included in each memorandum, OSD's guidance requires that the Vice Chief of Staff of the Army, the Vice Chief of Naval Operations, the Vice Chief of Staff of the Air Force, and the Assistant Commandant of the Marine Corps approve and sign the memorandum at each joint base involving their military service. Because the memorandums include the expected joint base personnel and funding requirements, the signatures of the Vice Chiefs are considered to be a commitment that each involved military service will provide the necessary personnel and funding to fully support the joint base and the delivery of installation support services in accordance with the definitions and standards. Fourth, OSD has established a framework, termed the cost and performance visibility framework, which is designed to collect and report cost and performance data pertaining to installation support and also assess compliance with the terms of the joint base memorandums of agreement. According to DOD officials, this framework, as well as installation-level monitoring of joint

base implementation, will help ensure that any issues concerning the delivery of support are quickly identified so that corrective steps can be taken. Officials at the nine installations we visited stated that, as long as necessary funding is provided, the joint bases will deliver consistent installation support.

### Installation Support Costs at the Joint Bases Are Expected to Increase

Contrary to the expectations from the 2005 BRAC Commission, OSD and service headquarters officials stated that installation support costs at the joint bases are expected to increase, at least in the short term, above the cost of installation support provided by the separate installations before consolidation. Included in each joint base’s memorandum of agreement are estimates of the current cost of installation support at the installations consolidating into joint bases and the expected cost of installation support after implementation of a joint base. As shown in table 2, at the three joint bases that had completed their memorandums as of January 2009, annual installation support costs are expected to increase by about \$24 million (7 percent) above current support costs.

**Table 2: Estimated Increase in Installation Support Costs before and after Joint Basing**

(Fiscal year 2009 dollars in millions)

Joint bases with completed memorandums of agreement	Estimated annual installation support costs		Estimated increase in support costs	
	Before joint basing	After joint basing	Amount	Percentage
Joint Expeditionary Base Little Creek-Fort Story	\$87	\$90	\$3	3
Joint Base Andrews-Naval Air Facility Washington	154	173	19	12
Joint Base Myer-Henderson Hall	101	103	2	2
<b>Total</b>	<b>\$342</b>	<b>\$366</b>	<b>\$24</b>	<b>7</b>

Source: DOD.

Officials at each of the nine installations we visited noted concerns about the cost of installation support under joint basing. For example, during our visit to McGuire Air Force Base, Fort Dix, and Naval Air Engineering Station Lakehurst, installation officials stated that installation support costs would increase after implementation of the joint base primarily because support levels in some areas would be increased to meet the new standards. An official estimate of the expected increase in costs was not available in January 2009 because these installations had not completed their memorandum of agreement. However, during our visit, McGuire Air Force Base officials estimated that an additional 194 personnel, along with the associated costs, would be needed for the joint base to provide

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installation support in accordance with the support standards. Similarly, during our visit to Charleston Air Force Base and Naval Weapons Station Charleston, a phase II joint base, installation officials also stated that they expected support costs to increase under joint basing. Preliminary estimates by Charleston Air Force Base officials showed that over 200 additional personnel might be needed for the joint base to provide installation support in accordance with the support standards.

Even before the initial three phase I joint bases had prepared their cost estimates showing increased support costs, the military services had already significantly reduced the estimate of the potential 20-year savings from joint basing as compared to the savings estimate made by the 2005 BRAC Commission. Specifically, in documents prepared to support the fiscal year 2009 budget, the military services estimated that the potential 20-year savings from joint basing was about \$273 million in constant fiscal year 2005 dollars. This amount reflects a reduction of about 88 percent from the \$2.3 billion savings in constant fiscal year 2005 dollars estimated by the commission. In view of the increased cost estimates from the initial phase I joint bases, some DOD officials stated that the military services' future estimates of the potential long-term savings would most likely continue to decline.

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## Military Services Have Not Fully Funded Installation Support in the Past

A key reason that installation support costs at the joint bases are expected to increase is that OSD has required that the joint bases deliver installation support in accordance with the 267 new support standards, even though the military services have not previously funded installation support in the amounts needed to meet each of the standards. Thus, additional costs will be incurred to meet the standards. According to OSD officials, ideally all military installations should provide support services in accordance with the newly established definitions and standards. However, primarily because of the significant increase in installation support funding that would be needed for all installations to meet the service standards, OSD has required that only the joint bases meet the standards at this time.

For many years, the adequacy of installation support funding has been a concern for the military services. Army, Navy, and Air Force officials stated that installation services funding for fiscal years 2005 through 2008 was less than the amounts needed to provide support at the levels desired. For example, according to Army officials, installation and facility operations support services—collectively classified as base operations support in the Army's budget—were funded at about 80 percent, 82 percent, 87 percent, and 85 percent of requirements in fiscal years 2005,

2006, 2007, and 2008, respectively. Army officials stated that, because of these funding levels, some installation services were reduced and provided at lower than optimum levels at some installations, which reduced the support provided to military personnel.

To obtain some insight into how many areas might require increased service levels at the installations consolidating into the joint bases, we performed a comparison of current service levels to the joint base standard service levels at the installations we visited. Specifically, we judgmentally selected 40 of the 267 joint base service-level standards and, at each installation we visited, compared the level of service that the installation was currently providing with the new standard. As shown in table 3, in about 27 percent of areas we compared, the joint base will have to increase the level of service provided to meet the standards.

**Table 3: Comparison of Current and Standard Service Levels for Selected Installation Support Areas**

Installation	Number of support areas compared <sup>a</sup>	Current service level meets the standard		Current service level is below the standard	
		Number of areas	Percentage	Number of areas	Percentage
Naval Amphibious Base Little Creek	38	23	61	15	39
Fort Story	37	27	73	10	27
Fort Lewis	40	26	65	14	35
McChord Air Force Base	39	32	82	7	18
McGuire Air Force Base	40	25	63	15	38
Fort Dix	38	31	82	7	18
Naval Air Engineering Station Lakehurst	36	22	61	14	39
Charleston Air Force Base	40	34	85	6	15
Naval Weapons Station Charleston	38	31	82	7	18
<b>Total</b>	<b>346</b>	<b>251</b>	<b>73</b>	<b>95</b>	<b>27</b>

Source: GAO analysis of information provided by each installation.

<sup>a</sup>At each installation, we compared the current service level with the standard for the same 40 judgmentally selected support areas. However, at 6 of the 9 installations sufficient information was not available to make the comparison in all 40 areas. Thus, the number of comparisons actually made ranged from 36 to 40 among the installations visited.

The following examples provide details on some of the support standards and current service levels that we compared at the installations visited.

- One standard for an installation’s child care program calls for 100 percent of children to be placed in the program within 3 months of a



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request. Officials at five of the nine installations we visited stated that their installation was not currently meeting this standard and that additional funding for facility construction and personnel will be needed to meet the standard. According to OSD officials, this standard was determined by military subject matter experts and was based primarily on an existing Navy standard.

- One standard for an installation's youth program services calls for 35 percent of eligible youth to participate in service youth programs. Officials at six of the nine installations we visited stated that their installation was not currently meeting this standard and that additional funding to increase facility capacity for youth programs will be needed to meet the standard. According to OSD officials, this standard originated in a DOD social compact, which was previously adopted by the military service components.
- One standard for an installation's basic custodial services calls for the restrooms to be cleaned three times per week, the floors to be swept and mopped once per week, the carpets to be vacuumed once per week, the floors to be buffed monthly, and the windows to be cleaned annually. Officials at seven of the nine installations we visited stated that their installation was not currently meeting this standard and that additional funding for personnel will be needed to meet the standard. According to OSD officials, this standard was based primarily on an existing Air Force standard.
- One standard for an installation's facility sustainment activities calls for 90 percent of facility components to be replaced in accordance with the component's useful service life. Officials at seven of the nine installations we visited stated that their installation was not currently meeting this standard and that additional funding will be needed to meet the standard. According to OSD officials, this standard was based on recently issued DOD budgeting guidance.

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### Military Services' Approach to Joint Base Implementation Will Result in Some Additional Installation Support Costs

Another key reason that joint basing is expected to increase installation support costs is that the military services' approach to joint base implementation will result in some additional administrative costs and the loss of some existing installation support efficiencies. For example, additional costs for installation administration are expected at the six joint bases where the Air Force will be the lead component. DOD officials noted that the typical smaller Air Force installation has one base commander who is responsible for both installation support and the operational mission of the installation. This differs from larger Air Force bases and

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typical Army and Navy installations, which have separate commanders responsible for installation support and for operational missions. Because of the increased administrative workload associated with providing installation support at a joint base, Air Force officials decided that it would be preferable to have a commander solely responsible for installation support at each joint base. To accomplish this, the Air Force intends to establish a new organization unit, consisting of a commander and supporting staff, which will be responsible for managing installation support at six joint bases where the Air Force will be the lead component. Although the Air Force did not have estimates of the added costs for the new units, officials at McGuire Air Force Base estimated that 19 additional administrative personnel will be needed to establish the new unit that will manage installation support at Joint Base McGuire-Dix-Lakehurst, which will result in increased costs.

As another example, officials at some of the Army and Navy installations we visited stated that in a few instances existing installation support efficiencies will be lost at joint bases where the Air Force will be the lead component. The officials stated that currently their regional commands provided some support services to the installation, such as certain personnel- and travel-related services, which would become the responsibility of the Air Force under joint basing where the Air Force is the lead component. However, the officials stated that the efficiencies from these existing arrangements will be lost because the joint base will begin to provide these services and at the same time no reduction in personnel was expected at the Army and Navy regions since the regions will continue to provide services for the installations that are not involved with joint basing.

Officials at McGuire Air Force Base and Fort Dix cited another example of increased support costs resulting from the way that Joint Base McGuire-Dix-Lakehurst is being implemented. As the lead component, McGuire Air Force Base will become responsible for installation support at this joint base and, in the area of delivering contract support, the Air Force has decided that McGuire's existing contracting office will be expanded in order to provide contracting services for the joint base. However, according to McGuire Air Force Base and Fort Dix officials, this approach will result in higher support costs compared to an alternative approach. Specifically, the officials stated that an existing contracting office at Fort Dix, which currently provides contracting services to Fort Dix as well as to other Army reserve units across the United States, could provide contracting services for the joint base with fewer personnel and at less cost than McGuire Air Force Base's contracting office. Although

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installation officials stated that this alternative was feasible and less costly, Air Force decided not to use the contracting office at Fort Dix primarily because the office is outside the Air Force's direct chain of command and the Air Force will ultimately be responsible for all joint base contracting services.

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### Officials Believe Increased Installation Support Costs Could Be Offset in the Long Term

In the long term, OSD officials stated that the increased cost of installation support at the joint bases might be at least partially offset as experience is gained and best practices and new operational efficiencies are identified and adopted over time. However, as long as support is provided at levels that meet the new support standards, OSD officials stated that they did not expect that installation support costs at the joint bases would fall below the current cost of installation support provided by the separate installations before consolidation. Thus, even in the long term, the officials did not expect that joint basing would result in actual savings from installation support spending levels prior to joint basing.

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### Facility Sustainment Funding Has Not Been Sufficient to Meet Requirements and Prevent Facility Deterioration

The military services have not budgeted and spent sufficient funds to meet their facility sustainment requirements and goals and prevent facility deterioration at installations throughout DOD. According to DOD, full funding of sustainment requirements is the most cost-effective approach to managing facilities because it provides the most performance over the longest period for the least investment. For this reason, DOD established a goal that the military services budget for sustainment in accordance with requirements as determined by DOD's facilities sustainment model. However, citing other budget priorities as the reason, the military services have not budgeted funds in the amounts needed to fully fund their sustainment requirements. In addition, the services have often spent even less on sustainment than they budgeted because they used some of the budgeted sustainment funds for other purposes, primarily to pay for unfunded facility restoration and modernization projects. As a result, the services have significant backlogs of needed facility sustainment work and some installation facilities have not been sustained at a level to keep them in good working order. According to DOD, when facilities are not fully sustained, the facilities will likely experience reduced service lives and more costly recapitalization requirements in the future.

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## Full Funding of Sustainment Requirements Is Cost Effective

According to DOD, full funding of sustainment requirements is the most cost effective approach to managing facilities because it provides the most performance over the longest period for the least investment. However, as other important priorities, such as force modernization, have competed for funding, DOD has been challenged to provide adequate resources for sustaining and recapitalizing its facilities. In April 2007 testimony, DOD noted that full funding of facilities sustainment had been and continued to be the foundation of the department's long-term facilities strategy and goals in order to optimize DOD's facility investment and ensure facility readiness.<sup>18</sup> When full sustainment funding is not provided, service officials noted that facility deterioration accelerates, facility service lives shorten, mission capabilities and quality of life decrease, and expected future costs increase.

In view of these positions and recognizing that funding of sustainment requirements had been a challenge because of competing budget priorities, DOD's 2004 installations strategic plan established a goal for the military services to fund sustainment at 95 percent of the requirement determined by DOD's facilities sustainment model beginning in fiscal year 2005, and at 100 percent of the requirement beginning in fiscal year 2008. In April 2008, we reported on the reliability of the facilities sustainment model.<sup>19</sup> The report noted that even though the reliability of the model's estimates could be improved, the model provided a consistent and reasonable framework for estimating sustainment requirements. Thus, use of the model for setting annual funding goals at the military service level appears reasonable.

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## Military Services Have Not Budgeted for Sustainment at Levels to Meet Requirements

Citing other budget priorities as the reason, the military services have not budgeted funds in the amounts needed to meet their sustainment requirements. Although DOD established a sustainment budgeting goal in fiscal year 2005, until fiscal year 2008 the goal called for the services to budget 95 percent of their requirements, rather than 100 percent of their requirements. Thus, even though the services met the goal in some years during fiscal years 2005 through 2007, they still did not budget sufficient funds to meet all requirements as determined by the facilities sustainment

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<sup>18</sup>Statement of Mr. Philip W. Grone, Deputy Under Secretary of Defense (Installations and Environment), before the Subcommittee on Readiness and Management Support, Senate Armed Services Committee (Apr. 10, 2007).

<sup>19</sup>See [GAO-08-502](#).

model. Further, none of the services met the 100 percent goal for fiscal year 2008. Specifically, in fiscal year 2008, the Army budgeted 89 percent, the Navy budgeted 83 percent, the Air Force budgeted 90 percent, and the Marine Corps budgeted 89 percent of their respective facility sustainment requirements. In total during fiscal years 2005 through 2008, the military services did not budget funds to meet about \$2.3 billion (9 percent) of their total facility sustainment requirements. Table 4 provides details by service on the amount of the facilities sustainment requirement that was not budgeted during fiscal years 2005 through 2008.

**Table 4: Facility Sustainment Requirements Not Budgeted in Fiscal Years 2005 through 2008**

(Dollars in millions)

Service	Amount of sustainment requirements not budgeted by fiscal year				
	2005	2006	2007	2008	Total
Army	\$126	\$290	\$249	\$302	\$967
Navy	63	71	61	239	434
Air Force	108	112	291	241	752
Marine Corps	26	28	35	64	153
<b>Total</b>	<b>\$323</b>	<b>\$501</b>	<b>\$636</b>	<b>\$846</b>	<b>\$2,306</b>

Source: DOD.

While maintaining the goal that the services budget 100 percent of their requirements as determined by the facilities sustainment model, OSD officials stated that they issued guidance in 2007 that the services budget at least 90 percent of their facilities sustainment requirements in fiscal years 2009 through 2013. The budgeting floor was set in order to provide a minimum funding level for sustainment across DOD and more consistency across the services in sustainment budgeting. According to OSD officials, affordability played a major role in choosing 90 percent as the floor, and the risk of not budgeting at 100 percent was considered acceptable in light of other DOD priorities.

### Military Services Have Used Some Budgeted Sustainment Funds for Other Purposes

The military services have further exacerbated the sustainment funding issue by using some of the budgeted sustainment funds for other purposes. OSD officials explained that even though the goal is for the services to budget 100 percent of their sustainment requirements and beginning in fiscal year 2009 the services are required to budget at least 90 percent of their sustainment requirements, the services have the flexibility to use budgeted sustainment funds for other purposes, if they determine that

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such spending is necessary. OSD officials noted that some spending flexibility is needed and is inherent in all operations and maintenance funded programs, including facilities sustainment.

According to information provided by the Army, the Navy, the Air Force, and the Marine Corps, the services used about \$2.6 billion (14 percent) of the funds budgeted for sustainment for other purposes during fiscal years 2006 through 2008.<sup>20</sup> Specifically, of the funds budgeted for sustainment during fiscal years 2006 through 2008, the Army used about \$1.5 billion (21 percent) for other purposes, the Navy used about \$900 million (25 percent) for other purposes, the Air Force used about \$200 million (4 percent) for other purposes, and the Marine Corps did not use any budgeted sustainment funds for other purposes. Service officials noted that nearly all of the sustainment funds used for other purposes was used to pay for unfunded facility restoration and modernization projects that they determined to be more urgent than funding sustainment work.<sup>21</sup> Restoration and modernization work typically involves larger, more extensive projects that restore facilities degraded from several causes, such as natural disaster or inadequate sustainment, or renovate or replace facilities to implement new or higher standards, accommodate new functions, or replace building components that typically last more than 50 years and are near the end of their economic lives. Thus, the funds were used for the benefit of installation facilities. However, even though the officials stated that these projects were needed and other funds to pay for the projects were not available, the consequence was that additional sustainment requirements went unmet. According to DOD, needed sustainment work that is not performed may eventually result in damaged facilities, shortened facility service lives, and increased future costs for facility restoration.

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<sup>20</sup>Service officials stated that in some years funds from other sources, such as supplemental funds provided for the Global War on Terrorism, were used to pay for some facility sustainment work. Thus, the amount of budgeted sustainment funds that the services used for other purposes in some years was partially offset, which lessened the impact from using sustainment funds for other purposes.

<sup>21</sup>DOD officials noted that the explanatory statement accompanying the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009, required DOD to provide written notification to the congressional defense committees of cumulative transfers in excess of \$15 million from specified operation and maintenance budget subactivities, including the facilities sustainment, restoration, and modernization budget subactivity. However, such notification is not required if funds budgeted for sustainment are used for restoration and modernization purposes because the funds would be used in the same budget subactivity.

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## Underfunding of Sustainment Requirements Has Resulted in Sustainment Backlogs and Some Deteriorated Installation Facilities

Because the military services have not budgeted to meet all sustainment requirements and have used some of the funds budgeted for sustainment for other purposes, the services have backlogs of needed sustainment work and some facilities have fallen into disrepair. For example, the Navy and the Air Force reported that their sustainment backlog at the end of fiscal year 2008 was about \$222 million and \$362 million, respectively. The Army did not report the amount of its sustainment backlog. Instead, the Army stated that deferred sustainment work became a restoration requirement, and at the end of fiscal year 2008, the Army reported that its restoration and modernization backlog was \$19.6 billion. For comparison, the Navy and the Air Force reported that their restoration and modernization backlog was \$28.7 billion and \$10.2 billion, respectively, at the end of fiscal year 2008. The Marine Corps also did not report a backlog of sustainment work but reported that its restoration and modernization backlog was about \$1.1 billion at the end of fiscal year 2008.

Although many facilities were in good condition, service officials stated that underfunding of sustainment requirements over many years had resulted in some deteriorated facilities, which according to DOD will likely result in reduced service lives and more costly recapitalization requirements in the future. Army officials noted that when sustainment funding is inadequate, planned projects are delayed, which sometimes causes further deterioration, such as damage to interior walls and floors from leaking roofs. Navy and Air Force officials also stated that inadequate facility sustainment funding had resulted in deteriorated facilities, reduced mission capabilities, and lower quality of life for installation personnel. Navy officials stated that in some instances installation aircraft runways have been closed because sustainment funds were not available to perform needed repairs.

At the nine installations we visited, facility sustainment requirements were not fully funded every year during fiscal years 2006, 2007, and 2008. At some installations, facility sustainment had benefited from the use of some supplemental funding provided for the Global War on Terrorism to pay for some related facility repairs. Still, considering the levels budgeted for sustainment and the use of some sustainment funds for other purposes, the amount actually spent on facility sustainment at six of the nine installations we visited was less than 75 percent of the estimated requirement, as determined by DOD's facilities sustainment model, during fiscal years 2006 through 2008, and at three of these installations, the

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amount spent was less than 60 percent of the estimated requirement.<sup>22</sup> Officials at the nine installations reported a total of \$376 million in backlogged facility sustainment needs.

Although many facilities at the installations we visited were in good condition, some facilities had fallen into disrepair because funds were not available to pay for all needed sustainment work. The following examples illustrate the deteriorated conditions of some facilities we observed.

Officials at Fort Story, Virginia, stated that repairs costing about \$2 million for the installation's command headquarters building had been deferred because sustainment funds were not available. One needed repair involved the building's basement, which had been damaged from extreme moisture, mold, and termites (see fig. 2). Due to the severity of the damage, the basement was not being used and, because the building was occupied and in daily use, a support wall had to be constructed to prevent the floor above the basement, which is the floor of the building's entrance, from collapsing.

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<sup>22</sup>At the installation level, comparisons of the amounts spent on sustainment with sustainment requirements can be less precise than similar comparisons at higher levels, such as at the military service level. The reason is that the facilities sustainment model estimates the average annual sustainment needs—not the actual annual sustainment needs—for each facility in the real property inventory. Thus, a particular facility's actual sustainment needs in a given year may vary from its average sustainment needs because in some years more sustainment work is needed than in other years. For example, in a year that a facility needs a roof replacement, the actual needed work would be more than the needed work in years when fewer repairs were needed. However, according to DOD officials, the model's estimates become increasingly precise as the sustainment needs of individual facilities are summed to higher levels because individual facility fluctuations from the average tend to offset each other.



**Figure 2: Damaged Basement in the Command Headquarters Building at Fort Story**

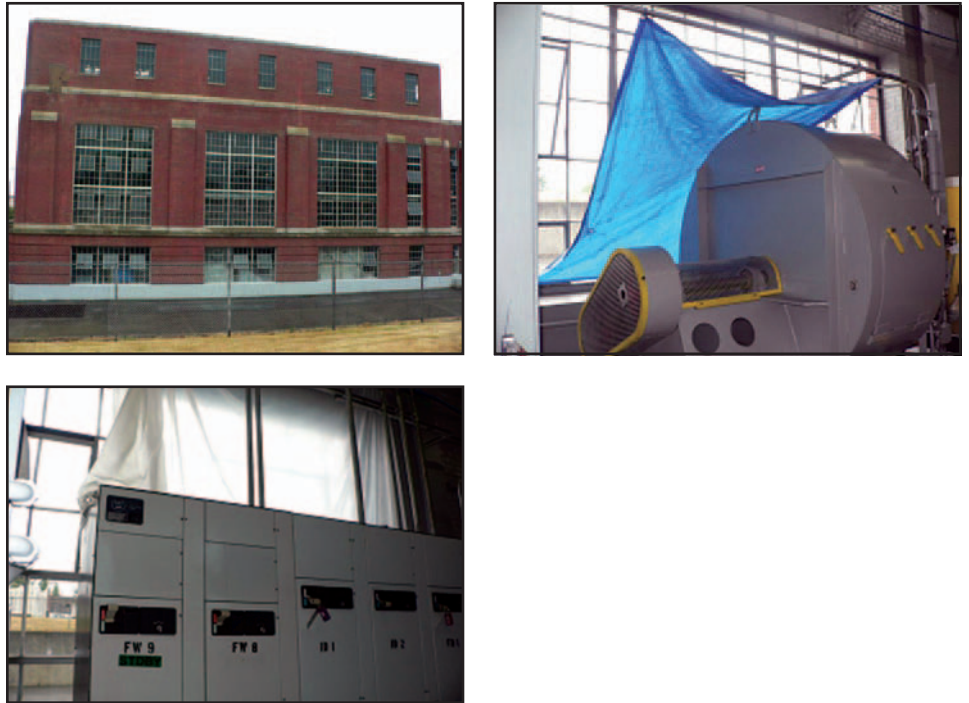


Source: GAO.

Note: Description of photographs, clockwise beginning with top left photograph: exterior entrance to the headquarters building, building's basement showing moisture and mold, support wall constructed in basement to prevent the floor above the basement from collapsing, and support beam to basement's ceiling showing termite damage.

Officials at McChord Air Force Base, Washington, stated that window repairs costing about \$32,000 for the installation's steam plant had been deferred because sustainment funding was not available. The building's windows leak and allow water to flow onto the electrical panels of some equipment in the plant. The leaks have occasionally caused the panels to short out, which resulted in temporary electricity outages to portions of the installation, potentially undermining operations (see fig. 3).

**Figure 3: Leaking Windows Allow Water to Flow into Electrical Control Panels at McChord Air Force Base**



Source: GAO.

Note: Description of photographs, clockwise beginning with top left photograph: exterior of steam plant building, tarp to help prevent rain water from damaging equipment, and plastic sheet to help prevent rain water from shorting out electrical panels.

Officials at Naval Amphibious Base Little Creek, Virginia, stated that repairs costing about \$650,000 at an administrative building had been deferred because of inadequate sustainment funding. Extensive water leaks from interior pipes in the building had caused excessive mold and mildew throughout the building (see fig. 4). The officials stated that one employee received medical treatment as a result of exposure to the mold in the building and other employees had experienced breathing difficulties.

**Figure 4: Leaking Pipes Caused Mold and Mildew Damage at Naval Amphibious Base Little Creek**



Source: GAO.

Note: Description of photographs, clockwise beginning with top left photograph: piping above ceiling showing mold and mildew, ceiling air vent showing mold and mildew, and a bucket sitting on room air conditioner to collect water and help prevent damage from leaking pipes in ceiling.

Officials at the Naval Air Engineering Station Lakehurst, New Jersey, stated that the roof of the public works building leaked and needed to be replaced. However, work had been deferred because sustainment funds were not available to complete the work, which was estimated to cost about \$200,000. The leaks had caused mold and damage in sections of the building and, in a recently refurbished conference room, a video display had to be covered with plastic sheeting to prevent damage from the leaks (see fig. 5).

**Figure 5: Damage from a Leaking Roof at the Public Works Building at Naval Air Engineering Station Lakehurst**



Source: GAO.

Note: Description of photographs, beginning with photograph on the left: plastic sheet covering a conference room television monitor to help prevent damage from leaks and side view of same television monitor showing trash can on floor to catch dripping water.

## Conclusions

While DOD has made a comprehensive effort to ensure consistent delivery of installation support at the planned joint bases, the estimates of potential savings will likely continue to decline and it is unclear whether joint basing will result in any actual savings. The levels of service called for by most standards were determined in view of DOD policies and practices, industry standards, or from other federal agencies, but judgment was also used to decide the standards in many areas. Because such decisions involve trade-offs between alternative levels of service and affordability, opportunities exist to review and, if needed, adjust these standards as experience is gained to ensure that the standards reflect the level of service necessary to meet installation requirements as economically as possible. Similarly, opportunities also exist to periodically review and address those instances where the military services' approach to implementing joint basing results in additional administrative costs or loss of existing installation support efficiencies. Furthermore, in view of DOD's newly established common support standards, the associated increase in the cost of installation support, and the significant decrease in expected long-term savings from joint basing, a detailed cost analysis of the results from the initial joint bases could assist the Congress in its oversight of this effort.

The military services have exacerbated the underfunding of facility sustainment requirements by using some budgeted sustainment funds for

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other purposes. Although using budgeted sustainment funds for other purposes is permissible, the result is that additional sustainment requirements are not met, and according to DOD, when facilities are not fully sustained, the facilities will likely experience reduced service lives and more costly recapitalization requirements in the future. Until additional attention is focused on facility sustainment spending, the military services might continue spending some sustainment funds on other purposes, thus leaving more sustainment needs unmet, which leads to greater recapitalization costs in the future. Furthermore, without updates on the amount of budgeted sustainment funds spent on other purposes, OSD will not be well positioned to effectively manage the risk associated with the redirection of sustainment funds and the Congress will lack the information needed to make informed decisions and ensure proper congressional oversight of the administration's annual budget submission for facility sustainment.

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## Recommendations for Executive Action

To address the expected increased installation support costs from joint basing implementation and the use of budgeted facility sustainment funds for purposes other than sustainment, we recommend that the Secretary of Defense direct the Deputy Under Secretary of Defense (Installations and Environment) to take the following four actions:

- Periodically review the installation support standards as experience is gained with delivering installation support at the joint bases and make adjustments, if needed, to ensure that each standard reflects the level of service necessary to meet installation requirements as economically as possible.
- Periodically review administrative costs as joint basing is implemented to minimize any additional costs and prevent the loss of existing installation support efficiencies.
- Complete a detailed analysis of the estimated installation support costs from the initial joint bases and report the results of the analysis to the Congress in the department's documents supporting the administration's annual budget submission or another document deemed appropriate.
- Increase the attention given to facility sustainment spending by summarizing and reporting to the Congress the amount of budgeted sustainment funds spent on other purposes in the department's

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documents supporting the administration's annual budget submission or another document deemed appropriate.

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## Agency Comments and Our Evaluation

In written comments on a draft of this report, the Deputy Under Secretary of Defense (Installations and Environment) stated that our report provided a comprehensive look into joint basing and facility sustainment funding and that DOD partially agreed with the report's four recommendations.

DOD partially agreed with our recommendation to periodically review the installation support standards and make adjustments, if needed, to ensure that each standard reflects the level of service necessary to meet requirements as economically as possible. DOD agreed that the standards may require refinement as mission requirements evolve, organizational structures mature, and efficiencies improve installation support delivery. However, because the joint base memorandum of agreement template already requires periodic reviews to ensure that installation support is delivered in accordance with appropriate, common, output level standards, DOD stated that further action to implement the recommendation was not necessary.

We agree that the memorandum of agreement template provides for the individual joint bases to periodically review their delivery of installation support and use of standards. However, while only the joint bases are currently required to deliver services in accordance with these standards, OSD officials told us that DOD developed the standards to define the level of service that all military bases should ideally provide in delivering installation support. Thus, because the standards are DOD-wide standards and not merely joint base standards, our recommendation calls for periodic reviews of these DOD-wide standards and not of the standards at individual bases. Also, because military judgment was used to decide many of the standards and support costs generally increase as the level of service increases, we believe that the trade-offs between alternative levels of service and affordability should be reconsidered as experience is gained. For these reasons, we continue to believe that DOD needs to take additional steps to periodically review the standards from a DOD-wide perspective and make adjustments, if needed, to ensure that the standards are appropriate and economical.

DOD partially agreed with our recommendation to periodically review administrative costs as joint basing is implemented to minimize any additional costs and prevent the loss of existing installation support efficiencies. DOD stated that it had already established a process to

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periodically review joint basing costs as part of DOD's planning, program, budget and execution system and that the joint base memorandum of agreement template requires periodic reviews of mission and resource impacts. Thus, DOD stated that further action to implement the recommendation was not necessary.

DOD's response to our recommendation describes the processes DOD intends to use to review costs after the joint bases have been implemented. However, our recommendation calls for reviewing costs during the joint base implementation process—not only after implementation has been completed. As illustrated by the examples cited in this report, the opportunity to reduce some joint base administrative costs and prevent the loss of existing installation support efficiencies exists during the time that the individual installations are working out the details on how to combine into a joint base. Thus, we continue to believe that DOD needs to take additional steps to perform periodic reviews to try to avoid losing existing efficiencies during the joint base implementation process and to help ensure that each joint base is established as economically and efficiently as possible.

DOD partially agreed with our recommendation to complete a detailed analysis of the estimated installation support costs from the initial joint bases and report the results of the analysis to the Congress. DOD stated that it is collecting estimated installation support cost information at the joint bases and that the information will be provided if the Congress requests it. As discussed in this report, installation support costs at the joint bases are expected to increase, at least in the short term, compared to support costs before consolidation. Because this outcome is the opposite of what was expected by the BRAC Commission, we believe that the issue is particularly noteworthy. As such, we believe that DOD should not only collect joint base installation support costs, as DOD stated it is doing, but also complete an analysis that compares the costs to the original cost expectations for the initial joint bases. We believe that the information in the analysis will assist the Congress in its oversight of joint basing and, as such, we continue to believe that DOD needs to proactively report the results of the analysis to the Congress in the department's documents supporting the administration's annual budget submission or another document deemed appropriate.

DOD partially agreed with our recommendation to increase the attention given to facility sustainment spending by summarizing and reporting to the Congress the amount of budgeted sustainment funds spent on other purposes. DOD stated that it will collect and summarize the amount of

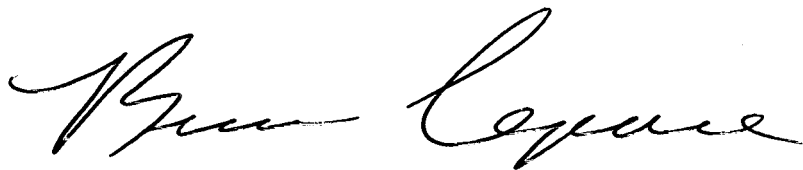
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budgeted sustainment funds spent on other purposes and that the information will be provided if the Congress requests it. This action partially addresses the recommendation. However, because we believe that the information will assist the Congress in its oversight of sustainment spending, we also continue to believe that DOD should proactively report the information in the department's documents supporting the administration's annual budget submission or another document deemed appropriate.

DOD's comments are reprinted in their entirety in appendix IV. DOD also provided technical comments, which we have incorporated into this report as appropriate.

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We are sending copies of this report to the Secretary of Defense; the Secretaries of the Army, the Navy, and the Air Force; the Commandant of the Marine Corps; and the Director, Office of Management and Budget. In addition, the report will be available at no charge on the GAO Web site at <http://www.gao.gov>. If you or your staff have any questions on the information discussed in this report, please contact me at (202) 512-4523 or [leporeb@gao.gov](mailto:leporeb@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix V.



Brian J. Lepore, Director  
Defense Capabilities and Management



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The Honorable Chet Edwards  
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The Honorable Zach Wamp  
Ranking Member  
Subcommittee on Military Construction,  
Veterans' Affairs, and Related Agencies  
Committee on Appropriations  
House of Representatives

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# Appendix I: Scope and Methodology

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To evaluate the Department of Defense's (DOD) efforts and expected costs to deliver installation support at the planned joint bases, we reviewed the justification supporting the 2005 Defense Base Closure and Realignment (BRAC) Commission's recommendation that DOD establish 12 joint bases and examined DOD's implementation plans, guidance, and cost estimates associated with the delivery of installation support at the planned joint bases. In addition, we reviewed recently issued DOD guidance that provided common installation support definitions and 267 support standards, and that required joint bases to deliver support in accordance with the definitions and standards. We discussed with the Office of the Secretary of Defense (OSD) and military service officials the status of joint base implementation, the basis for the new installation support standards, and mechanisms established to help ensure that the joint bases comply with DOD's joint basing guidance. In assessing expected changes in installation support costs at the joint bases, we compared the military services' fiscal year 2009 estimate of potential long-term savings from joint basing with the savings estimate made by the 2005 BRAC Commission, compared support cost estimates before and after joint basing at the three initial joint bases that had completed such estimates, discussed joint base support cost expectations and reasons for cost changes with OSD and military service officials, and reviewed information from the military services concerning past funding levels for installation support. To gain local level insight into the planned delivery and expected costs of installation support at the joint bases, we visited 3 Army, 3 Navy, and 3 Air Force installations that are consolidating into 4 of the 12 planned joint bases.<sup>1</sup> We selected bases for visits that had the highest potential reduction in jobs according to a DOD 2005 BRAC report.<sup>2</sup> At each installation visited, we discussed with local officials their views on the delivery of installation support by the joint bases and expectations regarding changes in support costs before and after implementation of the joint bases. Also, to obtain some insight into how many support areas might require increased service levels at the joint bases, we compared current service levels to the joint base support standards at each installation we visited. Specifically, we judgmentally selected 40 of the 267

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<sup>1</sup>Specifically, we visited Naval Amphibious Base Little Creek and Fort Story in Virginia; Fort Lewis and McChord Air Force Base in Washington; McGuire Air Force Base, Fort Dix, and Naval Air Engineering Station Lakehurst in New Jersey; and Charleston Air Force Base and Naval Weapons Station Charleston in South Carolina.

<sup>2</sup>Department of Defense, *Headquarters and Support Activities Joint Cross-Service Group Base Realignment and Closure Report*, Volume VII Final BRAC 2005 Report (May 10, 2005).

support standards and compared the level of service that the installation was currently providing to the level of service called for by the standard.

To evaluate DOD's funding for facility sustainment at all installations, we examined and compared DOD's requirements and goals for facility sustainment funding with the amounts actually budgeted and spent on sustainment. Specifically, we reviewed DOD's facility sustainment requirements for fiscal years 2005 through 2008, as determined by DOD's facilities sustainment model; reviewed DOD's installation strategic plans to identify DOD's goals for facility sustainment budgeting; obtained OSD and military service information for fiscal years 2005 through 2008 that showed the amounts budgeted for sustainment, spent on sustainment, and budgeted for sustainment but spent for other purposes; and compared the amounts budgeted and spent to the corresponding requirements and goals. The amounts budgeted and spent represented official OSD and military service information and we did not independently verify the amounts. In cases where DOD goals were not met and where sustainment funds were used for other purposes, we interviewed OSD and service officials to discuss the reasons why and any associated consequences, including the amounts of any deferred facility sustainment backlogs. We also reviewed other DOD guidance related to facility sustainment and interviewed OSD and service headquarters officials to further assess DOD's goals, policies, and practices related to facility sustainment, including the allocation of sustainment funds to the installation level. We developed case studies on facility sustainment requirements, funding allocations, and spending at the installation level, and interviewed local officials about the consequences if spending was less than requirements. To coordinate with our joint basing work, we developed case studies at the nine installations visited in connection with our joint basing work. Thus, because the installations we visited were not randomly selected, information from the case studies might not be representative of all military installations. During the installation visits, we also observed and took photographs of installation facilities that were in a deteriorated condition because needed sustainment work had not been performed.

We conducted this performance audit from May 2008 through February 2009, in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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# Appendix II: Methods Used by the Military Services to Allocate Facility Sustainment Funds to the Installation Level

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According to officials in each of the military services, the Department of Defense (DOD) facilities sustainment model is used as a tool to allocate facility sustainment funds to the installation level. However, some differences exist among the services' practices in allocating sustainment funds. For example, according to Army officials, the Army first considers each installation's facility sustainment requirement, as determined by DOD's model. Then, the Army allocates funding to its installations based on a set percentage of each installation's requirements. The same percentage is used for all installations and, historically, each installation has been allocated about 70 to 75 percent of its sustainment requirement. These funds are expected to be used to pay for routine sustainment work, such as regular facility inspections, preventive maintenance, and service calls, as well as some larger sustainment projects, such as roof replacements. According to Army officials, in the past few years all budgeted sustainment funds were not allocated to the installations. Some funds were retained at Army headquarters and used to pay for unfunded restoration and modernization projects related to specific Army investment strategies, such as barracks improvement and upgrades to transportation infrastructure.

According to Navy officials, the Navy first considers the facility sustainment requirement of all installations, as determined by DOD's model, under each of the Navy's regional commands. Then, the Navy allocates funding based on a set percentage of each region's total sustainment requirement. The regions then allocate sustainment funds to their installations. According to Navy officials, the percentage used to allocate funds to the regions is determined by the amount of sustainment funds that the Navy budgeted and the Navy's practice of retaining a portion of the funds at headquarters to centrally pay for some larger sustainment projects, maintenance dredging, specialized inspections, demolition projects, and some unfunded restoration and modernization projects. With this practice in fiscal year 2008, the Navy allocated to each of its regional commands about 55 percent of each region's total sustainment requirement. Some regional commands reallocate all of the funds they receive to their installations based on the same percentage of each installation's sustainment requirement. Other regional commands retain a portion of the funds they receive to pay for regional projects—such as design work on facility projects, larger sustainment projects, and some unfunded restoration and modernization projects. Installations use their sustainment funds to pay for routine sustainment work and can submit to their regional commands or Navy headquarters a prioritized list of needed larger sustainment projects, which compete for funding based on Navy and regional priorities.

According to an Air Force official, the Air Force first considers the facility sustainment requirement of all Air Force active, guard, and reserve installations, as determined by DOD's model. Then, the Air Force allocates to each component about 90 percent of each component's total sustainment requirement. The components, in turn, allocate funding to their major commands based on the commands' specific mission needs and their model-determined sustainment requirements, and the commands allocate the funds to the installation level in accordance with execution plans, unique funding priorities, and advice from financial management and civil engineering experts.

According to a Marine Corps official, the Marine Corps first considers the facility sustainment requirement of all installations, as determined by DOD's facilities sustainment model, under each of the Marine Corps' regions. Then, the Marine Corps allocates funding based on a set percentage of each region's requirements. The same percentage is used for all regions and, historically, each region has been allocated about 60 percent of its sustainment requirement. The regions then allocate sustainment funds to their installations based on their specific knowledge of each installation's requirements. Installations are expected to use these funds to pay for routine sustainment work, such as regular facility inspections, preventive maintenance, and service calls. According to Marine Corps officials, all budgeted sustainment funds are not allocated to the regions. Some funds are retained at Marine Corps headquarters and used to pay for larger sustainment projects. Specifically, each installation can submit a prioritized list of larger sustainment projects to Marine Corps headquarters. Headquarters decides which projects to fund based on Marine Corps priorities and the amount of funds available, which is the amount of budgeted funds that was not initially allocated to the regions.

# Appendix III: List of Installation Support Functions and Number of Associated Standards for Joint Bases

The Department of Defense (DOD) issued joint basing implementation guidance in January and April 2008 that for the first time established a set of common definitions and standards for installation support. As shown in table 5, the guidance defined 47 installation support functions and provided 267 standards to help define the level of service that each joint base is to provide for each of the support functions.

**Table 5: Installation Support Functions and Number of Associated Standards for Joint Bases**

Installation support functions		Number of standards
1	Airfield operations	14
2	Child and youth programs	6
3	Command management	26
4	Installation public affairs	11
5	Legal support	7
6	Financial management	4
7	Management analysis	4
8	Procurement operations	6
9	Installation safety	4
10	Installation chaplain ministries	6
11	Installation history and museums	none <sup>a</sup>
12	Laundry and dry cleaning	2
13	Food services	4
14	Custodial services	3
15	Emergency management	9
16	Environmental compliance	5
17	Environmental conservation	7
18	Environmental pollution prevention	3
19	Environmental restoration	none <sup>a</sup>
20	Facilities demolition	1
21	Facilities new footprint	none <sup>a</sup>
22	Facilities restoration and modernization	1
23	Facilities sustainment	7
24	Family housing services	2
25	Fire protection and emergency services	1
26	Grounds maintenance and landscaping	3
27	Information technology services management	26
28	Lodging	6
29	Military personnel services	none <sup>a</sup>

**Appendix III: List of Installation Support  
Functions and Number of Associated  
Standards for Joint Bases**

<b>Installation support functions</b>	<b>Number of standards</b>
30 Morale, welfare, and recreation	6
31 Pavement clearance services	1
32 Pest control services	1
33 Port services	14
34 Readiness engineering services	none <sup>a</sup>
35 Real property management and engineering services	8
36 Real property leases	none <sup>a</sup>
37 Refuse collection and disposal	3
38 Installation law enforcement operations	5
39 Installation physical security protection and services	4
40 Small arms range management	8
41 Supply, storage, and distribution (munitions)	13
42 Supply, storage, and distribution (non-munitions)	8
43 Base support vehicles and equipment	9
44 Installation movement	5
45 Unaccompanied personnel housing services	2
46 Utilities	4
47 Warfighter and family services	8
<b>Total</b>	<b>267</b>

Source: DOD.

<sup>a</sup>DOD officials stated that the use of standards was not applicable for this installation support function.



# Appendix IV: Comments from the Department of Defense



ACQUISITION  
TECHNOLOGY  
AND LOGISTICS

OFFICE OF THE UNDER SECRETARY OF DEFENSE  
3000 DEFENSE PENTAGON  
WASHINGTON, DC 20301-3000

MAR 18 2009

Mr. Brian J. Lepore  
Director, Defense Capabilities and Management  
U.S. Government Accountability Office  
441 G Street, N.W.  
Washington, DC 20548

Dear Mr. Lepore:

This is the Department of Defense (DoD) response to the GAO draft report, GAO-09-336, "DEFENSE INFRASTRUCTURE: DoD Needs to Periodically Review Support Standards and Costs at Joint Bases and Better Inform Congress of Facility Sustainment Funding Uses," dated February 13, 2009 (GAO Code 351223). Detailed comments on the report recommendations and technical comments are enclosed.

We thank you and your staff for the work in producing this comprehensive look into Joint Basing and Facility Sustainment Funding. If we can be of any additional assistance, my point of contact is Ms. Patricia Bushway, (703) 571-9083, pat.bushway@osd.mil.

Sincerely,

Wayne Amy  
Deputy Under Secretary of Defense  
(Installations and Environment)

Enclosure:  
As stated



GAO DRAFT REPORT – DATED FEBRUARY 13 2009  
GAO CODE 351223/GAO-09-336

"DEFENSE INFRASTRUCTURE: DoD Needs to Periodically Review Support  
Standards and Costs at Joint Bases and Better Inform Congress of Facility  
Sustainment Funding Uses"

DEPARTMENT OF DEFENSE COMMENTS  
TO THE RECOMMENDATIONS

**RECOMMENDATION 1:** The GAO recommends that the Secretary of Defense direct the Deputy Under Secretary of Defense (Installations and Environment) to periodically review the installation support standards as experience is gained with delivering installation support at the joint bases and make adjustments, if needed, to ensure that each standard reflects the level of service necessary to meet installation requirements as economically as possible.

**DOD RESPONSE:** Partially concur. The strategic imperative of Joint Basing is to provide consistent, high quality installation support. In order to meet this imperative in a dynamic mission environment, standards may require refinement as mission requirements evolve, organizational structures mature, and efficiencies improve product delivery. Therefore, joint base memoranda of agreement already mandate a periodic review for mission, manpower and financial impacts, to ensure delivery of installation support to appropriate common output level standards. Direction by the Secretary of Defense is, therefore, not necessary.

**RECOMMENDATION 2:** The GAO recommends that the Secretary of Defense direct the Deputy Under Secretary of Defense (Installations and Environment) to periodically review administrative costs as joint basing is implemented to minimize any additional costs and prevent the loss of existing installation support efficiencies.

**DOD RESPONSE:** Partially concur. The implementation of Joint Basing presents the Services with a significant opportunity to incorporate more efficient and/or more effective best practices in installation management. The Department has already established a process whereby it will review Joint Basing costs periodically as part of the Planning, Program, Budget and Execution System. Moreover, the Services are required by their Memorandums of Agreement to conduct periodic reviews for mission and resource impacts. Direction by the Secretary of Defense is, therefore, not necessary.

**RECOMMENDATION 3:** The GAO recommends that the Secretary of Defense direct the Deputy Under Secretary of Defense (Installations and Environment) to complete a

detailed analysis of the estimated installation support costs from the initial joint bases and report the results of the analysis to the Congress in the Department's documents supporting the Administration's annual budget submission or another document deemed appropriate.

**DOD RESPONSE:** Partially Concur. The Department is collecting estimated installation support cost information at the joint bases. That information will be provided to Congress should they request it.

**RECOMMENDATION 4:** The GAO recommends that the Secretary of Defense direct the Deputy Under Secretary of Defense (Installations and Environment) to increase the attention given to facility sustainment spending by summarizing and reporting to the Congress the amount of budgeted sustainment funds spent on other purposes in the Department's documents supporting the Administration's annual budget submission or another document deemed appropriate.

**DOD RESPONSE:** Partially concur. The Department will collect and summarize the amount of budgeted sustainment funds spent on other purposes. That information will be provided to Congress should they request it.

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# Appendix V: GAO Contact and Staff Acknowledgments

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## GAO Contact

Brian J. Lepore, (202) 512-4523 or leporeb@gao.gov

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## Acknowledgments

In addition to the contact named above, Mark Little, Assistant Director; Kate Lenane; Jeanett Reid; Geoffrey Peck; Charles Perdue; and Gary Phillips made significant contributions to this report.

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# Related GAO Products

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## Base Realignment and Closure

*Military Base Realignments and Closures: DOD Faces Challenges in Implementing Recommendations on Time and Is Not Consistently Updating Savings Estimates.* [GAO-09-217](#). Washington, D.C.: January 30, 2009.

*Military Base Realignments and Closures: Army Is Developing Plans to Transfer Functions from Fort Monmouth, New Jersey, to Aberdeen Proving Ground, Maryland, but Challenges Remain.* [GAO-08-1010R](#). Washington, D.C.: August 13, 2008.

*Military Base Realignments and Closures: Higher Costs and Lower Savings Projected for Implementing Two Key Supply-Related BRAC Recommendations.* [GAO-08-315](#). Washington, D.C.: March 5, 2008.

*Defense Infrastructure: Realignment of Air Force Special Operations Command Units to Cannon Air Force Base, New Mexico.* [GAO-08-244R](#). Washington, D.C.: January 18, 2008.

*Military Base Realignments and Closures: Estimated Costs Have Increased and Estimated Savings Have Decreased.* [GAO-08-341T](#). Washington, D.C.: December 12, 2007.

*Military Base Realignments and Closures: Cost Estimates Have Increased and Are Likely to Continue to Evolve.* [GAO-08-159](#). Washington, D.C.: December 11, 2007.

*Military Base Realignments and Closures: Impact of Terminating, Relocating, or Outsourcing the Services of the Armed Forces Institute of Pathology.* [GAO-08-20](#). Washington, D.C.: November 9, 2007.

*Military Base Realignments and Closures: Transfer of Supply, Storage, and Distribution Functions from Military Services to Defense Logistics Agency.* [GAO-08-121R](#). Washington, D.C.: October 26, 2007.

*Military Base Realignments and Closures: Plan Needed to Monitor Challenges for Completing More Than 100 Armed Forces Reserve Centers.* [GAO-07-1040](#). Washington, D.C.: September 13, 2007.

*Defense Infrastructure: Challenges Increase Risks for Providing Timely Infrastructure Support for Army Installations Expecting Substantial Personnel Growth.* [GAO-07-1007](#). Washington, D.C.: September 13, 2007.

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*Military Base Realignment and Closures: Observations Related to the 2005 Round.* [GAO-07-1203R](#). Washington, D.C.: September 6, 2007.

*Military Base Closures: Projected Savings from Fleet Readiness Centers Are Likely Overstated and Actions Needed to Track Actual Savings and Overcome Certain Challenges.* [GAO-07-304](#). Washington, D.C.: June 29, 2007.

*Military Base Closures: Management Strategy Needed to Mitigate Challenges and Improve Communication to Help Ensure Timely Implementation of Air National Guard Recommendations.* [GAO-07-641](#). Washington, D.C.: May 16, 2007.

*Military Base Closures: Opportunities Exist to Improve Environmental Cleanup Cost Reporting and to Expedite Transfer of Unneeded Property.* [GAO-07-166](#). Washington, D.C.: January 30, 2007.

*Military Bases: Observations on DOD's 2005 Base Realignment and Closure Selection Process and Recommendations.* [GAO-05-905](#). Washington, D.C.: July 18, 2005.

*Military Bases: Analysis of DOD's 2005 Selection Process and Recommendations for Base Closures and Realignments.* [GAO-05-785](#). Washington, D.C.: July 1, 2005.

---

## Defense Infrastructure

*High-Risk Series: An Update.* [GAO-09-271](#). Washington, D.C.: January 2009.

*Defense Infrastructure: High-Level Leadership Needed to Help Communities Address Challenges Caused by DOD-Related Growth.* [GAO-08-665](#). Washington D.C.: June 17, 2008.

*Defense Infrastructure: Continued Management Attention Is Needed to Support Installation Facilities and Operations.* [GAO-08-502](#). Washington, D.C.: April 24, 2008.

*Defense Infrastructure: DOD Funding for Infrastructure and Road Improvements Surrounding Growth Installations.* [GAO-08-602R](#). Washington, D.C.: April 1, 2008.

---

*Defense Infrastructure: Army and Marine Corps Grow the Force Construction Projects Generally Support the Initiative.* [GAO-08-375](#). Washington, D.C.: March 6, 2008.

*Defense Infrastructure: Issues Need to Be Addressed in Managing and Funding Base Operations and Facilities Support.* [GAO-05-556](#). Washington, D.C.: June 15, 2005.

*Military Training: Better Planning and Funding Priority Needed to Improve Conditions of Military Training Ranges.* [GAO-05-534](#). Washington, D.C.: June 10, 2005.

*Defense Infrastructure: Changes in Funding Priorities and Strategic Planning Needed to Improve the Condition of Military Facilities.* [GAO-03-274](#). Washington, D.C.: February 19, 2003.

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## Congressional Relations

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## Public Affairs

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