November 13, 2009

The Honorable Jeff Bingaman
Chairman
The Honorable Lisa Murkowski
Ranking Member
Committee on Energy and Natural Resources
United States Senate

The Honorable Daniel K. Akaka
United States Senate

Subject: Defense Infrastructure: Guam Needs Timely Information from DOD to Meet Challenges in Planning and Financing Off-Base Projects and Programs to Support a Larger Military Presence

The Department of Defense’s (DOD) plans to increase the U.S. military presence on Guam are expected to increase the island’s current military population by about two and a half times by 2020. If implemented as planned, this realignment would increase the military population on Guam from about 15,000 in 2009 to about 29,000 in 2014, and to more than 39,000 by 2020, which will increase the current island population of 178,430 by about 14 percent over those years. The largest portion of the military’s population growth is related to the relocation of about 8,000 Marines and their 9,000 dependents from Okinawa, Japan, to Guam as part of an agreement between the United States and Government of Japan to reduce forces in Japan while maintaining a continuing presence of U.S. forces in the region. The populations of each of the other military services also are expected to increase as a result of DOD plans to expand their operations and presence on Guam. DOD plans to fund DOD-owned and on-base infrastructure to support the military realignment and buildup, such as roads, buildings, and other facilities, while the government of Guam is expected to be largely responsible for funding and constructing government of Guam-owned off-base roads and utilities and providing certain public services.

We have previously reported that the government of Guam faces significant challenges in addressing the impacts of the buildup and realignment. For example, Guam’s infrastructure would likely be inadequate to meet increased use resulting from the military buildup. In June 2009, we reported that Guam will need to significantly expand its existing utilities infrastructure and expand public services for electric power generation, potable water production, wastewater collection and treatment, and solid waste collection and disposal to provide the additional utility
capacities and services that will be required following the buildup. Moreover, we have also reported that Guam’s major highways may not have enough capacity to accommodate the increased military and civilian traffic since the island’s two major highways may need major improvements. This report is one in a series of reports examining critical issues relating to the planned military buildup. We have included a listing of our past Guam reports at the end of this report.

The government of Guam established the Civilian-Military Task Force in April 2006 to identify and develop cost estimates for potential nondefense projects and programs needed to support the larger military presence. The task force comprises 11 subcommittees that focus on specific issues to identify community impacts resulting from the buildup and develop appropriate mitigation plans. In addition, the task force has identified initial estimates of the cost to improve critical off-base infrastructure and expand needed public services to ensure adequate support to the expanded military and civilian community. In May 2008, the Governor of Guam testified before the Senate Committee on Energy and Natural Resources and stated that the government of Guam would need about $6.1 billion to expand the commercial port; roadways; power, water, and other infrastructure; and certain public services in support of the buildup. These infrastructure needs and services are to be part of a multiyear funding program to ensure that Guam is able to support the buildup and secure post-buildup sustainability. In response to your request, this report examines (1) the processes used by the government of Guam to develop cost estimates for its off-base projects and programs related to the military buildup and (2) the key challenges, if any, affecting the government of Guam’s ability to finance off-base projects and programs that are needed to support the buildup and larger military and civilian community.

To determine the processes used by the government of Guam to develop cost estimates for off-base projects and programs to support a larger military and civilian population resulting from the military buildup, we obtained and analyzed studies and assessments used by the government of Guam to develop the cost estimates. We also examined the government of Guam’s fiscal year 2010 budget request. In addition we

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4 Statement of The Honorable Felix P. Camacho, Governor of Guam, before the U.S. Senate Committee on Energy and Natural Resources Concerning the United States Military Buildup on Guam: Impact on the Civilian Community, Planning, and Response (May 1, 2008).

5 We did not validate the underlying assumptions of the estimates.
reviewed briefings, annual reports, and other pertinent documentation prepared by the government of Guam, DOD, and U.S. federal departments and agencies. In addition, we interviewed officials from DOD’s Office of Economic Adjustment, the Navy’s Joint Guam Program Office, U.S. Pacific Command, Naval Facilities Engineering Command-Pacific, Naval Facilities Engineering Command-Marianas, the Department of the Interior’s Office of Insular Affairs, the Guam Buildup Office, the Guam Office of the Public Auditor, the Guam Department of Public Works, the Guam Bureau of Budget and Management, the Guam Public Works Authority, and the Guam Waterworks Authority. To identify what key challenges, if any, may be affecting the government of Guam’s ability to plan and finance off-base projects and programs related to the buildup, we analyzed the government of Guam’s most recent financial statements and independent auditor’s reports, as well as information on Guam’s current bond ratings. We also examined information on Guam’s statutory debt limitation. In addition, we discussed key challenges with the Guam Buildup Office, the Office of the Public Auditor, the Bureau of Budget and Management, the Department of the Interior’s Office of Insular Affairs, the Joint Guam Program Office, and the DOD Office of Economic Adjustment.

We conducted this performance audit from March 2009 through November 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.

Summary

The processes used by the government of Guam to develop the key cost estimates for planned off-base projects and programs varied depending on project or program value, complexity, and size; whether independent consultants provided input; and the extent to which DOD provided data to help set project requirements. As a result, the estimates prepared to date vary in quality, and the overall costs to develop supporting off-base infrastructure are still uncertain. These off-base projects range from large, multiyear projects, such as improving Guam’s road network linking the commercial port to DOD’s bases, to small, local projects, such as expanding certain fire stations. In instances where DOD was involved in clarifying or providing updated information on its buildup requirements, and the government of Guam used independent consultants to help develop and verify cost estimates, we found that the government of Guam developed cost estimates that may better reflect likely final requirements and may better justify investment decisions since they are informed by expert analysis and the most up-to-date planning information. For example, when Guam’s Department of Public Works initially estimated that it needed $4.4 billion to improve the road network on Guam, it did not have the benefit of DOD’s involvement. However, after the May 1, 2008, hearing and after engaging DOD in further defining buildup requirements, Guam’s Department of Public Works was able to narrow the scope of the project from overall highway improvements to roadways directly affected by the military buildup. Guam hired consultants from two national
transportation and engineering firms, using funding from the Federal Highway Administration, to develop and validate cost estimates based on DOD’s input in clarifying requirements. As a result, the government of Guam’s road projects cost estimate fell by nearly $3 billion to about $1.5 billion. This reduced the overall estimate for multiyear projects from $6.1 billion to $3.2 billion. Conversely, on another large project—the expected expansion of the water and sewer system—DOD input provided general buildup information for cost estimates, but DOD and Guam had not reached agreement on the key question of whether to have a single water system for military and civilian customers or two separate systems, thus making current system upgrade cost estimates potentially unreliable. For the smaller fire station expansion project, the government of Guam’s Civilian-Military Task Force developed a cost estimate without direct DOD involvement or use of independent consultants. The Guam Fire Department followed National Fire Protection Association standards to project expansion of the two fire stations, and the Civilian-Military Task Force’s Infrastructure Subcommittee then estimated that expanding two stations would cost $425,000. However, since the process did not have the benefit of updated DOD input, these estimates may not fully reflect actual buildup requirements. Key buildup decisions to reflect actual buildup requirements, such as the exact location, size, and makeup of forces moving to Guam as well as the size and type of facilities to be constructed, will not be finalized until the environmental impact statement and its associated record of decision are complete. These documents are currently targeted to be finalized in January 2010.

The government of Guam faces two key challenges in financing off-base infrastructure projects and programs required to support a larger military and civilian population resulting from the military buildup. First, the impact of Guam’s debt ceiling on the ability of the government of Guam to incur debt to help fund off-base projects and programs is uncertain. While the Organic Act of Guam includes a statutory debt limitation on government borrowing, limiting Guam’s public indebtedness to no more than 10 percent of the aggregate tax valuation of the property on Guam, not all government obligations are included in this debt ceiling. For example, bonds or other obligations of the government of Guam payable solely from revenues derived from any public improvement or undertaking are not considered public indebtedness of Guam within the meaning of this limitation. Thus, until the precise form and terms of the debt that the government of Guam might contemplate for the purposes of the military buildup on Guam is known, the impact that Guam’s debt ceiling may have on the ability of the government of Guam to incur such a debt obligation is unclear. Second, the government of Guam’s operating deficit was approximately $415 million at the time of our review, and this deficit can affect Guam’s ability to borrow because of questions about the extent to which additional debt service payments are affordable. Officials from Guam’s Bureau of the Budget and Management said that they will have difficulty finding revenue sources to close the current deficit while also attempting to fund projects related to the military buildup. Nonetheless, the government of Guam may have some ability to raise revenue through issuing bonds despite the deficit. In June 2009, the government of Guam sold $473.5 million worth of bonds to help pay for cost-of-living adjustments owed to government of Guam retirees and tax refund payments owed to residents,
and to fund part of the construction of a new landfill to help meet projected expansion needs, demonstrating that a market may exist among investors for Guam’s debt. Also, Guam’s ability to finance needed infrastructure projects could improve because of potentially improved local economic conditions as the military buildup continues. We have previously reported that available studies indicate that communities surrounding military growth installations can expect to realize economic benefits stemming from the growth. DOD’s Office of Economic Adjustment has provided the government of Guam with approximately $2.5 million to hire an international consulting firm to assist Guam with financial advisory services, determine its ability to underwrite buildup requirements, and recommend various options for Guam to consider in developing future revenue streams needed to fund off-base infrastructure development and expanded public services.

In commenting on this report, DOD stated that it accurately characterizes the challenges that both DOD and Guam face in developing cost estimates for off-base projects and programs designed to deal with the impact of the military buildup and realignment on Guam. DOD also provided technical comments, which we incorporated as appropriate into this report. DOD’s comments are reprinted in their entirety in enclosure II.

Background

In 2004, the U.S. Secretaries of State and Defense and the Japanese Minister of Foreign Affairs and Minister of State for Defense began a series of sustained security consultations aimed at strengthening the U.S.-Japan security alliance and better addressing the rapidly changing global security environment. The resulting U.S.-Japan Defense Policy Review Initiative established a framework for the future of the U.S. force structure in Japan and is to facilitate a continuing presence for U.S. forces in the Pacific theater by relocating military units to Guam. As part of this initiative, DOD plans to move 8,000 Marines and their estimated 9,000 dependents from Okinawa, Japan, to Guam by 2014. In addition to this initiative, the United States plans to expand the capabilities and presence of Navy, Air Force, and Army forces on Guam. As a result, the military population, including dependents, on Guam is expected to grow by over 160 percent, from its current population of about 15,000 to over 39,000 by 2020. Most of the extensive population growth and development resulting from the buildup will occur on the northern half of the island, primarily in the northwestern portion, where DOD currently plans to construct a new Marine Corps base. According to Joint Guam Program Office officials, the current planned schedules and levels of population growth and force structure could change as buildup plans are further refined and approved.

In response to the projected military buildup on Guam, the government of Guam established the Civilian-Military Task Force as a means to identify and develop cost

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estimates for potential nondefense projects and programs needed to support the larger military presence on Guam.\textsuperscript{7} The task force consists of 11 subcommittees that comprise members from the community, the government of Guam, the military, the business community, and civic organizations. The task force helps to identify community impacts resulting from the buildup and develop appropriate mitigation plans. At the time of our review, the task force had developed cost estimates for two types of funding requests: (1) a multiyear request to include major infrastructure needs and to secure post-buildup sustainability and (2) a onetime fiscal year 2010 budget request that identifies pre-buildup needs for Guam to adequately prepare for the realignment and buildup. Enclosure I provides additional information on the government of Guam’s estimates for off-base projects and programs. The government of Guam initially identified its large, multiyear off-base projects and programs during the hearing before the Senate Committee on Energy and Natural Resources in May 2008. The cost estimates for these off-base projects and programs totaled $6.1 billion at that time and involved the expansion of Guam’s port, improvement to Guam’s roadways, and expansion of Guam’s water infrastructure. In April 2008, the task force developed a fiscal year 2010 budget request that totaled approximately $238 million, which was in addition to the $6.1 billion in the Governor’s May 2008 hearing statement. The government of Guam sent the 2010 budget request to the Office of Management and Budget for funding consideration in July 2008.

The Navy holds primary responsibility for overseeing the military buildup on Guam. In August 2006, the Office of the Secretary of Defense directed the Navy to establish the Joint Guam Program Office, which reports to the Assistant Secretary of the Navy (Installations and Environment), to facilitate, manage, and execute requirements associated with the rebasing of U.S. assets from Okinawa, Japan, to Guam. Specifically, the office was tasked with leading the coordinated planning efforts of all DOD components and other stakeholders to consolidate, optimize, and integrate the existing military infrastructure on Guam, and is currently preparing a Guam master plan to address all aspects of the buildup. The Naval Facilities Engineering Command is primarily responsible for contracting for the construction of the military’s buildup infrastructure as well as developing the environmental impact statement.\textsuperscript{8}

In accordance with the National Environmental Policy Act of 1969, DOD is currently preparing an environmental impact statement in order to evaluate the likely environmental effects of its buildup and realignment plans.\textsuperscript{9} The environmental

\textsuperscript{7} The Civilian-Military Task Force was established in April 2006 by Governor of Guam Executive Order 2006-10.

\textsuperscript{8} The primary purpose of an environmental impact statement is to serve as an action-forcing device to ensure that the policies and goals defined in the National Environmental Policy Act of 1969 are infused into the ongoing programs and actions of the federal government.

\textsuperscript{9} The National Environmental Policy Act of 1969, codified as amended at 42 U.S.C. § 4321-4347, establishes environmental policies and procedures that are to be followed by all federal agencies to the fullest extent possible. The act established the Council on Environmental Quality, which is responsible for, among other things, issuing guidelines and reviewing agencies’ policies and procedures to ensure compliance with the act. Council on Environmental Quality regulations implementing the National
impact statement is also expected to contain an analysis of various socioeconomic impacts of the realignment related to specific proposed actions (as appropriate), among other matters. The environmental impact statement and associated record of decision are currently targeted to be finalized by January 2010, and are to be used by the Joint Guam Program Office to finalize the buildup master plan. The master plan will form the baseline for military construction budget planning and facility and utility designs and provide a top-level view of the size and type of facility requirements, candidate and preferred land sites, and proposed use of the land to meet the requirements for new personnel and forces planned for Guam.

The Office of Economic Adjustment is a DOD field activity that reports to the Deputy Under Secretary of Defense (Installations and Environment), under the Under Secretary of Defense (Acquisition, Technology and Logistics). It is responsible for facilitating DOD resources in support of local programs and providing direct planning and financial assistance to communities and states seeking assistance to address the impacts of DOD’s actions. The Office of Economic Adjustment’s assistance to growth communities is primarily focused on assisting these communities with organizing and planning for population growth because of DOD activities, commonly referred to as defense-affected communities.

DOD policies and guidance on assistance to defense-affected communities indicate that DOD should seek to minimize negative economic impacts on communities resulting from changes in defense programs, such as base closures, realignments, consolidations, transfer of functions, and reductions in force. Specifically, the secretaries of the military departments are to provide maximum advance information and support to local governments to allow planning for necessary adjustments in local facilities and public services, workforce training programs, and local economic development activities. In addition, DOD is to take the leadership role in assisting substantially and seriously affected communities with the negative effects of major defense base closures, realignments, and contract-related adjustments. We previously reported that it has been long-standing DOD policy that DOD take the leadership role within the federal government in helping communities respond to the effects of defense-related activities. This is based on a series of executive orders, the current version of which establishes the Economic Adjustment Committee made up of 22 federal departments and agencies to, among other duties, advise, assist, and support

Environmental Policy Act of 1969 appear at 40 C.F.R. Part 1500. In accordance with National Environmental Policy Act of 1969 requirements and Council on Environmental Quality regulations, federal agencies typically evaluate the likely environmental effects of projects they are proposing to undertake using an environmental assessment or, if a project constitutes a major federal action significantly affecting the quality of the human environment, a more detailed environmental impact statement.


the Defense Economic Adjustment Program, which is to assist defense-affected communities.  

The Processes Used by the Government of Guam to Develop Cost Estimates Varied, and Buildup Requirements Are Not Yet Fully Known

The government of Guam used differing processes to develop cost estimates based on (1) the type and size of off-base projects and programs, (2) the extent to which DOD provided data to inform project and program requirements, and (3) whether appropriate consulting services were available or used to refine cost estimates. Off-base projects range from large, multiyear projects, such as improving Guam’s road network linking the commercial port to DOD’s bases and expanding and modernizing Guam’s port, to small, local projects, such as expanding certain fire stations. Although the government of Guam has developed some cost estimates, the environmental impact statement, which will inform DOD’s overall Guam master plan and plan implementation decisions, and its associated record of decision are targeted to be finalized by January 2010. Government of Guam officials believe that their ability to plan for off-base infrastructure development has been hampered by a lack of finalized buildup plans. According to DOD officials, DOD has provided information on buildup plans to the government of Guam as requirements have become more fully known to try and assist the government of Guam with planning efforts.

Some Large, Multiyear Projects Were Developed Using Independent Consultants and Increased DOD Involvement in Clarifying Requirements

For some of the larger, multiyear off-base infrastructure projects, DOD clarified or provided updated data regarding its potential buildup requirements. The government of Guam also hired independent consultants to help develop and verify cost estimates based on its understanding of buildup requirements. In these instances, we found that the government of Guam developed cost estimates that may better reflect likely final requirements and may better justify investment decisions. For example, as stated at the May 1, 2008, hearing, Guam’s Department of Public Works initially estimated that overall roadway improvements related to the buildup would cost around $4.4 billion. However, the Guam Department of Public Works subsequently engaged DOD to identify specific improvements based on factors such as the preferred routing of truck traffic, points of congestion, and the expeditious and safe movement of military equipment, materials, supplies, and personnel. Moreover, the Guam Department of Public Works hired two national transportation and engineering firms, using funding from the Federal Highway Administration, to develop and verify cost estimates on

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13 We have reported in the past that cost estimates will need to be continually updated as actual costs begin to replace the original estimates. GAO, GAO Cost Estimating and Assessment Guide: Best Practices for Developing and Managing Capital Program Costs, GAO-09-3SP (Washington, D.C. March 2009).
roadway inputs based on the revised project requirements. This resulted in a new estimate for roadway improvements that totaled $1.5 billion—a decrease of $2.9 billion or almost 66 percent of the original estimate. This revision also substantially affected the government of Guam’s overall estimate for larger, multiyear projects, reducing it from $6.1 billion to $3.2 billion.14 In addition to its input to the government of Guam’s estimate for roadway improvements, DOD supplied the government of Guam with anticipated port throughput requirements during and after the buildup, from 2010 to 2018, permitting a longer-term planning horizon. Similarly, the Port Authority of Guam combined its funding with that provided by the Office of Economic Adjustment to hire a national engineering firm to develop a port master plan update that incorporated DOD’s cargo throughput requirements. The engineering firm estimated that port upgrades addressing the projected increases in population and ship traffic due to the buildup would cost approximately $195 million (calendar year 2008 dollars).

In other instances, the government of Guam hired independent consultants to help develop cost estimates for larger, multiyear infrastructure projects even though updated or detailed buildup information was not available from DOD because certain agreements were still to be negotiated. For example, the Guam Waterworks Authority contracted with an independent consultant from a national environmental engineering firm using its own funds and an Environmental Protection Agency grant to develop a cost estimate for the expansion of Guam’s water system (e.g., potable water production and wastewater collection and treatment) to meet increased demand from the military buildup. The $192 million estimate was issued in 2007 and is based on the assumption that a unified water and wastewater system will be used to serve both the civilian and military populations. However, as we previously reported, DOD is in the process of determining how it will meet its potable and wastewater needs, and whether it will use a unified water system or develop its own.15 The Guam Waterworks Authority has indicated that if DOD provides additional detailed information, it will modify the assumptions used to develop its estimate for expanding Guam’s water system. As the government of Guam and DOD reach agreements on water and wastewater systems and more specific requirements are identified, the cost estimate will likely have to be revised to reflect material changes associated with these agreements.

Smaller Onetime Pre-Buildup Estimates Developed Solely by the Government of Guam’s Civilian-Military Task Force

For smaller estimates that were part of the government of Guam’s fiscal year 2010 budget request, the Civilian-Military Task Force helped to identify requirements and developed estimates without engaging DOD or using independent consultants. As such, these estimates did not have the benefit of updated DOD input on its plans to expand on Guam, raising questions about how reliable these estimates are in that

14 As the government of Guam has continued to revise its estimate for larger, multiyear projects, the total is currently about $2.9 billion. See enc. I for more details about the projects.

15 GAO-09-653.
they do not reflect updated or final buildup requirements. For example, the Guam Fire Department followed National Fire Protection Association standards in conjunction with the anticipated locations of population growth due to the buildup to conclude that two fire stations will need to be expanded by constructing dormitories to accommodate additional firefighters as well as for a space to shelter new emergency vehicles. The Fire Department provided that information to the Civilian-Military Task Force’s Infrastructure Subcommittee, which in turn estimated that the expansion project would cost $425,000.

Similarly, Guam’s Department of Public Health and Social Services used the number of recent tuberculosis cases on Guam in conjunction with information from the Centers for Disease Control and Prevention, the anticipated number of construction laborers needed for the buildup, and the percentage of tuberculosis cases occurring in countries expected to supply these laborers to determine the need for a tuberculosis control program. The program includes an increase in staff and additional office space for Guam’s Bureau of Communicable Disease Control in order to provide an increase in surveillance, counseling, and treatment services to help minimize the spread of tuberculosis on Guam thought to be possible because of an influx of construction laborers from countries where the disease is more prevalent. The Department of Public Health and Social Services then provided the information to the Health and Social Services Subcommittee, which estimated that establishing the program would cost $458,988.

Guam’s Economic Development and Commerce Authority, using past studies in conjunction with the anticipated location of military facilities, determined a need to assess the nature and types of infrastructure necessary for economic development opportunities in civilian-owned undeveloped areas in proximity to military bases, as these areas are expected to be prime locations for development in support of or in response to military growth. The Economic Development and Commerce Authority provided this information to the Economic Development Subcommittee, which estimated the total cost of performing such a study, including hiring a project manager, to be $350,000.

Buildup Requirements Are Not Yet Fully Known

The government of Guam will likely not receive finalized plans and requirements from DOD until its master plan has been issued, although DOD has provided some interim information. Naval Facilities and Engineering Command is currently developing the environmental impact statement related to the realignment and buildup, and this document and its associated record of decision must be completed before the master plan and key decisions, such as the exact location, size, and makeup of forces moving to Guam as well as the size and type of facility requirements, can be finalized. Both the environmental impact statement and record of decision are currently targeted to be finalized in January 2010. As such the government of Guam’s ability to develop cost estimates that reflect actual buildup requirements is somewhat limited because there is greater potential for margins of error if its estimates are based on requirements that can change. Though buildup
plans are not yet finalized, DOD’s Office of Economic Adjustment, which provides planning information and support to communities affected by DOD programs, has been providing technical and financial assistance to the government of Guam based on the government of Guam’s incremental response strategy and information provided by the Joint Guam Program Office. However, government of Guam officials believe that their ability to plan and develop cost estimates for the off-base infrastructure development to support the larger population has been hampered because overall buildup plans are not finalized. According to DOD officials, DOD has provided information on buildup plans to the government of Guam as requirements have become more fully known to assist with Guam’s planning.

Although the government of Guam has received some preliminary information regarding the military buildup, we have previously reported that uncertainties associated with the exact size, makeup, and timing of the forces to be moved to Guam make it difficult for the government of Guam to develop comprehensive plans to address the effects of the proposed military buildup since the environmental impact statement process has not been completed yet. Any delays in the issuance of the environmental impact statement and its associated record of decision until after January 2010 can adversely affect Guam as it will compress the time period in which the government of Guam plans and develops final cost estimates for the construction and improvement of new off-base infrastructure, and ensures that enhanced public services are available to serve the larger military force currently scheduled to arrive by 2014.

The Government of Guam Faces Some Potential Challenges in Financing Off-Base Projects and Programs, but May Also Be Able to Raise Some Revenue on Its Own

The government of Guam faces two key challenges in identifying and financing its off-base projects and programs related to the military buildup. These financing challenges are its statutory debt limitation and operating deficit. Despite such challenges, Guam’s ability to finance needed infrastructure projects could improve because of enhanced local economic conditions as the military buildup continues.


Guam’s financing challenges are its statutory debt limitation and its operating deficit. First, the government of Guam’s ability to borrow funds to help pay for off-base infrastructure projects and programs related to the military buildup may be constrained because of a statutory debt limitation contained in the Organic Act of Guam, depending on the form and terms of the prospective debt. Section 11 of the act places a limitation on government borrowing, limiting Guam’s public indebtedness to

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16 GAO-08-722T.
no more than 10 percent of the aggregate tax valuation of property on Guam.\textsuperscript{17} However, not all government obligations are included in the debt ceiling. For instance, section 11 notes that bonds or other obligations of the government of Guam payable solely from revenues derived from any public improvement or undertaking shall not be considered public indebtedness as defined in the Organic Act of Guam. Further, whether certain government obligations constitute debts, and thus are to be included in a particular debt limit calculation, is generally a highly litigated issue.\textsuperscript{18} Thus, until the government of Guam has determined and decided on the form and terms of debt it plans to incur to help fund off-base projects and programs related to the buildup, it is unknown what impact this debt limitation provision will have on the ability of the government of Guam to incur debt for the purposes of the buildup.

Second, Guam has faced an operating deficit over the past few years. In May 2009 Guam’s Office of the Public Auditor reported that the government of Guam’s general fund operating deficit for fiscal year 2007 was $510 million.\textsuperscript{19} An independent audit of the government of Guam’s fiscal year 2008 financial statements showed that Guam’s operating deficit had decreased to $415 million.\textsuperscript{20} However, the estimated general fund expenditures for fiscal year 2009 total around $490 million. Thus the operating deficit is almost 85 percent of the government’s total operating expenses. Officials from Guam’s Bureau of Budget and Management said that they will have difficulty finding and securing enough revenue sources to close the current deficit while also attempting to fund new off-base projects and programs related to the buildup. The Office of Public Auditor noted that while the military buildup may be a catalyst for growth, if all revenue increases from the buildup will be used to fund current government operations, little, if any, new cash will be available to pay past debt, and cash shortfall problems could continue.

\textsuperscript{17} 48 U.S.C. § 1423a. Most U.S. states and local municipalities have similar constitutional or statutory limitations on borrowing. Debt limitation provisions “serve as a limit to taxation and as a protection to taxpayers; to maintain … solvency, both governmental and proprietary; and to keep [local] … residents from abusing their credit, and to protect them from oppressive taxation.” In Re Request of Camacho, 2003 Guam 16, 2003 WL 21697180 at 3 (Guam July 23, 2003), quoting McQuillin (3rd ed., § 41.02); reversed on other grounds in Limtiaco v. Camacho, 549 U.S. 483 (2007).

\textsuperscript{18} Courts have interpreted “debt” to include a wide variety of financial arrangements. For example, the Guam Supreme Court held that bonds issued by the Guam Telephone Authority should be included in the debt ceiling, because the government of Guam was committed to pay to the authority any deficiencies in the bond reserve fund from general tax revenues. Guam Telephone Authority v. Rivera, 416 F.Supp. 283 (1976).

\textsuperscript{19} Office of the Public Auditor, Annual Report Calendar Year 2008 (Hagåtña, Guam, May 22, 2009). The general fund is the government of Guam’s primary operating fund.

The Government of Guam May Have Some Potential to Raise Revenue in Support of the Military Buildup

The government of Guam has demonstrated that it can raise revenue by issuing bonds. In June 2009, the government of Guam successfully sold $473.5 million worth of bonds to help pay for cost-of-living adjustments owed to government of Guam retirees and tax refund payments owed to residents, and to fund part of the construction of a new landfill to help meet projected expansion needs. This demonstrates that a market may exist among investors for Guam’s debt. Moreover, we have reported that communities near military growth locations face growth-impact challenges in the short term, including challenges to identify and provide additional infrastructure—such as schools, roads, housing, and other services—to support the expected population growth, but that these communities can also expect to realize economic benefits in the long term.\(^\text{21}\)

An increase in military and federal civilian employees on Guam stemming from the buildup may be a potential source of additional revenue. For instance, Guam receives federal income taxes paid by military and civilian employees of the U.S. government stationed in Guam.\(^\text{22}\) As the buildup progresses and both military and federal civilian personnel come to Guam, the amount of this income tax revenue provided to Guam may increase.

The Office of Economic Adjustment has been providing technical and financial assistance to the government of Guam in preparation for the buildup since July 2006. At the time of our review, the Office of Economic Adjustment had provided the government of Guam with approximately $7.6 million in grants that have been used to: provide logistical support to the Office of the Governor; develop a financial modeling tool for the Port Authority of Guam and a port financial feasibility study; undertake a variety of studies on the port expansion and solid waste management; and support the government of Guam with international consulting services. Office of Economic Adjustment officials stated that the assistance provided to the government of Guam is intended to enable the territory to make informed decisions on how to respond to the buildup program. As part of the $2.5 million grant provided by the Office of Economic Adjustment in September 2008, the government of Guam hired an internationally recognized consulting team with expertise in planning, environmental, and fiscal/financial advisory services. The consulting team provides the government of Guam with the expertise to develop response alternatives, evaluate the associated risks, and determine appropriate financing mechanisms. At the time of our review, the consulting team was developing a fiscal impact analysis using information from the environmental impact statement. This analysis will include an estimate of the impact of the buildup on the territory's cash flow, taking into account projected changes in expenses and tax revenues. This could help indicate the extent to which

\(^{21}\) GAO-08-665.

the government of Guam may be able to identify and develop revenue streams rather than rely solely on federal grants for funding of off-base infrastructure.

Agency Comments

In commenting on this report, DOD stated that it accurately characterizes the challenges that both DOD and Guam face in developing cost estimates for off-base projects and programs designed to deal with the impact of the military buildup and realignment on Guam. DOD also provided technical comments, which we incorporated as appropriate into this report. DOD’s comments are reprinted in their entirety in enclosure II.

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We are sending copies of this report to the appropriate congressional committees. We are also sending copies to the Secretaries of Defense and the Interior; the Secretaries of the Army, the Navy, and the Air Force; the Commandant of the Marine Corps; and the Director of the Office of Management and Budget. This report also is available at no charge on our Web site at http://www.gao.gov.

If you or your staff have any questions, about this report, please contact me at (202) 512-4523 or 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 major contributions to this report are listed in enclosure III.

Brian J. Lepore, Director
Defense Capabilities and Management
Enclosure I

Government of Guam Cost Estimates for Off-Base Projects and Programs

The government of Guam has developed cost estimates for two types of funding requests: (1) a multiyear request to include major infrastructure needs and to secure post-buildup sustainability and (2) a onetime fiscal year 2010 budget request that identifies pre-buildup needs for Guam to adequately prepare for the realignment and buildup. These estimates were developed by the government of Guam’s Civilian-Military Task Force. Table 1 provides information on the government of Guam’s cost estimates for off-base projects and programs. The fiscal year 2010 estimates in table 1 are categorized and totaled by Civilian-Military Task Force subcommittee as they are in the government of Guam’s budget request. These estimates are made up of smaller projects and programs that when summed together produce each subcommittee’s estimate. The examples provided for each subcommittee category illustrate the types of projects and programs the government of Guam has identified as needed to adequately prepare for the buildup.

Table 1: Government of Guam Cost Estimates for Off-Base Projects and Programs as of September 2009

<table>
<thead>
<tr>
<th>Estimates</th>
<th>Descriptions</th>
<th>Amount*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiyear estimates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roadway improvements</td>
<td>• Identify and improve road infrastructure based on military use during and after buildup</td>
<td>$1,547</td>
</tr>
<tr>
<td>Guam power infrastructure</td>
<td>• Expansion of power infrastructure capacity to generate additional power and improve its reliability</td>
<td>666</td>
</tr>
<tr>
<td>Education</td>
<td>• Expansion of educational services, including purchase of school supplies and hiring additional staff</td>
<td>206</td>
</tr>
<tr>
<td>Port expansion</td>
<td>• Expansion and modernization of Guam’s port to address increases in ship traffic</td>
<td>195</td>
</tr>
<tr>
<td>Water infrastructure</td>
<td>• Expansion of Guam’s water system, including potable water production and wastewater collection and treatment</td>
<td>192</td>
</tr>
<tr>
<td>Public health</td>
<td>• Expansion of Guam Memorial Hospital and construction of a new central public health and social services building</td>
<td>135</td>
</tr>
<tr>
<td>Total multiyear estimates</td>
<td></td>
<td>$2,941</td>
</tr>
<tr>
<td>Fiscal year 2010 estimates (example projects and programs under each estimate)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure</td>
<td>• Purchase of additional X-ray machines and washdown facilities at ports of entry to Guam</td>
<td>$170.0</td>
</tr>
<tr>
<td></td>
<td>• Architectural and engineering designs for expansion of Guam Memorial Hospital</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Expansion of fire stations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Increase in staff at Guam’s Department of Agriculture</td>
<td></td>
</tr>
</tbody>
</table>

23 The initial overall cost estimate for the government of Guam’s multiyear projects and programs was $6.1 billion, as indicated in Governor Camacho’s May 1, 2008, hearing statement. This initial estimate was reduced to $3.2 billion because of subsequent revisions in the estimate for roadway improvements. As the government of Guam has continued to revise its estimate for larger, multiyear projects, the total is currently about $2.9 billion.

<table>
<thead>
<tr>
<th>Estimates</th>
<th>Descriptions</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>University of Guam Health-Science Renovation and Expansion Project</td>
<td></td>
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<tr>
<td></td>
<td>• Architecture and engineering services for construction of a new building for the University of Guam’s Center for Excellence in Developmental Disabilities Education, Research, and Services</td>
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<tr>
<td></td>
<td>• Renovation of building space for the University of Guam’s Marine Laboratory</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Increase in Port Authority of Guam staff</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Retrofit of the civilian airport to accommodate military aircraft</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Design phase for new court facility</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Architectural and engineering design for the construction of new buildings for the Department of Health and Social Services</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Installation of new water sources</td>
<td></td>
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<tr>
<td></td>
<td>• Expansion of sewer capacity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Upgrade of power-generation infrastructure</td>
<td></td>
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<tr>
<td></td>
<td>• Increase in Port Authority of Guam staff</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>• Upgrade of power-generation infrastructure</td>
<td></td>
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<tr>
<td></td>
<td>• Increase in Guam Department of Labor staff to assist in alien-labor certification and workers compensation</td>
<td>29.0</td>
</tr>
<tr>
<td></td>
<td>• Increase in Guam Department of Administration staff to assist in training and development of worker training programs and to establish employment and training programs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Increase in staff levels within the Guam Department of Administration</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Review of the classification and compensation of government of Guam employees</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Improvement in government of Guam human resources information systems</td>
<td></td>
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<tr>
<td></td>
<td>• Increase in staff at the Guam Board of Registration for Professional Engineers, Architects, and Land Surveyors</td>
<td></td>
</tr>
<tr>
<td>Economic Development</td>
<td>• Establishment of revolving loan program to provide financial support to local and small businesses that will vie for military contracts</td>
<td>12.0</td>
</tr>
<tr>
<td></td>
<td>• Obtaining consultant services from University of Guam to prepare an economic plan to guide the civilian community as a result of rapid military growth</td>
<td></td>
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<tr>
<td></td>
<td>• Designing, testing, and implementation of an econometric model to identify income, output, and employment multipliers due to the buildup</td>
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<tr>
<td></td>
<td>• Access and infrastructure feasibility studies</td>
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<tr>
<td></td>
<td>• Financial advisory services</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Increase in staff at Guam’s Department of Revenue and Taxation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Hiring of a consultant for the Chamorro Land Trust Commission</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Development of a financial management and general services plan</td>
<td></td>
</tr>
<tr>
<td>Public Safety</td>
<td>• Recruiting, hiring, and training police officers as well as providing additional equipment and vehicles for new officers</td>
<td>9.0</td>
</tr>
<tr>
<td></td>
<td>• Impact study to address the effect of accelerated population growth on the Guam Police Department</td>
<td></td>
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<tr>
<td></td>
<td>• Purchase of emergency vehicles and hiring of additional customs enforcement officers for the Guam Customs and Quarantine Agency</td>
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<td></td>
<td>• Increase in staff at the Attorney General of Guam’s Prosecution and Family Divisions</td>
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<tr>
<td></td>
<td>• Increase in staff at the Guam Public Defender Service Corporation</td>
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<tr>
<td></td>
<td>• Increase staff at the Guam Department of Corrections</td>
<td></td>
</tr>
<tr>
<td>Health and Social Services</td>
<td>• Increase in Guam Bureau of Communicable Disease Control staff to improve surveillance of potential disease rate increases.</td>
<td>5.0</td>
</tr>
<tr>
<td>Estimates</td>
<td>Descriptions</td>
<td>Amount</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------------------------------------------------------------------------</td>
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</tr>
</tbody>
</table>
| Natural Resources     | • Increase in staff in Guam’s Coastal Management Program to provide an adequate review of the environmental impact statement when it is released by the U.S. Department of Defense  
                       • Implementation of a watershed restoration program to reforest badly degraded areas in the southern part of Guam  
                       • Increase in the number of agricultural quarantine inspectors to deal with the influx of military personnel and foreign workers  
                       • Conducting a fiscal year 2010 needs assessment for the Guam Historic Preservation Office  
                       • Development of an overall master plan in obtaining a complete survey of all farmers registered with the Guam Department of Agriculture  
                       • Increase in staff for the Plant Nursery Program in the Guam Department of Agriculture  
                       • Increase in staff in the Guam Department of Agriculture’s Division of Animal Health, Quarantine, and Control | 3.5    |
| Education             | • Increase in University of Guam personnel to expand its capacity to increase academic and support staff functions in areas identified as high priorities in producing more workforce personnel as well as maintaining additional facilities expansion  
                       • Increase in institutional capacities in career and technical education and apprenticeship programs at Guam Community College  
                       • Assessment of the needs of the Guam Public Library System to serve the increased population anticipated from the buildup | 3.0    |
| Ports and Customs     | • Purchase of additional X-ray machines and washdown facilities at ports of entry to Guam  
                       • Increase in Port Authority of Guam staff<sup>b</sup> | 3.0    |
| Environment           | • Increase in Guam Environmental Protection Agency staff to issue permits for buildup projects and monitor such projects for compliance with both Guam and U.S. environmental regulations | 2.0    |
| Housing               | • Property retracement surveys to ensure that property boundaries are properly delineated and mapped | 0.8    |
| Social and Cultural   | • Master planning for the Guam Visitors Bureau, the Guam Council on Arts and Humanities, and the Department of Chamorro Affairs to plan out services and needs in connection with the military buildup | 0.2    |
| **Total**             | **Source: GAO analysis of government of Guam data.**                          | **$237.5** |

<sup>a</sup>Amounts rounded.<br><br><sup>b</sup>These items also included in the Infrastructure Subcommittee’s estimates.
Enclosure II

Comments from the Department of Defense

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

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, “Defense Infrastructure: Guam Needs Timely Information from DoD to Meet Challenges in Planning and Financing Off-Base Projects and Programs to Support a Larger Military Presence,” dated October 5, 2009 (GAO Code 351302/GAO-10-90R). Detailed comments on the report are enclosed.

The Department appreciates the opportunity to comment on this draft report and concurs with the findings in the report regarding the challenges that both the Department and Guam face in developing cost estimates for necessary off-base projects and programs designed to deal with the impacts military build-up and realignment on Guam.

The Department appreciates the work performed by the GAO in this regard and the opportunity to comment on the draft report.

Sincerely,

[Signature]

Dorothy Robyn
Deputy Under Secretary of Defense
(Installations and Environment)

Enclosure:
As stated
"Defense Infrastructure: Guam Needs Timely Information from DOD to Meet Challenges in Planning and Financing Off-Base Projects and Programs to Support a Larger Military Presence"

DEPARTMENT OF DEFENSE COMMENTS

DOD COMMENTS:

The report accurately characterizes the challenges that both DOD and Guam face in developing cost estimates for off-base projects and programs designed to deal with the impact of the military build-up and realignment on Guam.

As the report points out, DOD is sharing information with Guam and its consultants as it becomes available. This will lead to refined cost estimates for necessary off-base projects and programs. Also, DOD is supporting several consultant studies that will likely allow for further refinement of these estimates.

Additionally, DOD is working within its statutory authorities and in cooperation with Guam to fund road improvements and utilities system upgrades, such as $50 million in fiscal year 2010 for upgrades to roadways that are expected to be heavily impacted by construction and military traffic. DoD is reviewing additional projects for funding, as well.

We suggest the following substitutions to clarify the report:

Page 11, last two sentences of the first paragraph: Similarly, the Port Authority of Guam (PAG) combined its funding with that provided by the Office of Economic Adjustment to hire a nationally recognized engineering firm to develop a port master plan update that incorporated DoD’s cargo throughput requirements. The engineering firm estimated that port upgrades addressing the projected increases in population and ship traffic due to the buildup would cost approximately $195 million (CY 2008 dollars).

Page 14, first new sentence of the paragraph carried over from the previous page: Though buildup plans are not yet finalized, DoD’s Office of Economic Adjustment, which provides planning information and support to communities affected by DoD programs, has been providing technical and financial assistance to the Government of Guam based on the Government of Guam’s incremental response strategy and information provided by the Joint Guam Program Office.
Page 17, second paragraph: The Office of Economic Adjustment has been providing technical and financial assistance to the Government of Guam in preparation for the buildup since July 2006. At the time of our review, the Office of Economic Adjustment had provided the Government of Guam with approximately $7.6 million in grants that have been used to: provide logistical support to the Office of the Governor; develop a financial modeling tool for the Port Authority of Guam and a port financial feasibility study; undertake a variety of studies on the port expansion and solid waste management; and support the Government of Guam with international consulting services. Office of Economic Adjustment officials stated that the assistance provided to the Government of Guam is intended to enable the Territory to make informed decisions on how to respond to the buildup program. As part of the $2.5 million grant provided by the Office of Economic Adjustment in September 2008, the Government of Guam hired an internationally recognized consulting team with expertise in planning, environmental, and fiscal/financial advisory services. The consulting team provides the Government of Guam with the expertise to develop response alternatives, evaluate the associated risks, and determine appropriate financing mechanisms. At the time of our review, the consulting team was developing a fiscal impact analysis using information from the Environmental Impact Statement. This analysis will include an estimate of the impact of the buildup on the Territory’s cash flow, taking into account projected changes in expenses and tax revenues.
Enclosure III

GAO Contact and Staff Acknowledgments

GAO Contact

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

Acknowledgments

In addition to the contact named above, Harold Reich, Assistant Director; Grace Coleman; Amy Frazier; Kate Lenane; Josh Margraf; Richard Meeks; Richard Powelson; John Van Schaik; and Michael Willems made key contributions to this report.
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