



**Torchbearer
National Security Report
on Infrastructure**

Decaying Military Infrastructure:

Putting U.S. Army Readiness at Risk



An AUSA Torchbearer Issue
September 2001





21 September 2001

The Association of the United States Army (AUSA) has been and will remain active and committed to preserving America’s current and future military capabilities. The readiness of our forces depends on an effective and vibrant infrastructure. Years of underfunding that infrastructure have taken a toll. Today we have a mission-ready military living, working and training on installations—*power-projection platforms*—with delapidated, eroding infrastructure. Simply stated, world-class units, soldiers and families are stationed on third-class installations. This must stop now. As a commander of a major stateside installation recently stated, “We can’t send troops into combat if we can’t train them in proper facilities.” We believe that Congress and the Department of Defense must commit to adequately funding the Army Facility Strategy—sustainment and modernization—to remove the current impact on mission performance and reverse the deterioration trend.

In this latest installment of AUSA’s Torchbearer series, we examine that decaying infrastructure and its impact on U.S. Army readiness, and outline what must be done to solve the problem. We hope you find this report a useful source, and that you will continue to look to AUSA for thoughtful, credible analysis of contemporary national security issues.

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A handwritten signature in black ink, appearing to read "Gordon R. Sullivan".

GORDON R. SULLIVAN
General, USA Retired
President



Executive Summary

AUSA's report "Decaying Military Infrastructure: Putting U.S. Army Readiness at Risk" provides an analysis of a critical challenge facing the U.S. Army—the overall readiness of installations significantly lagging behind the readiness of the Army stationed on them. AUSA is distributing 10,000 copies worldwide to key audiences, including members of Congress and their staffs; key officials in the Office of the Secretary of Defense (OSD); other military associations; industry; the media; and general officers and command sergeants major throughout the Army.

The Association of the United States Army is committed to fighting for maintaining effective infrastructure and power-projection platforms. To remain ready we must close the gap between the requirements of Army force structure and the capabilities of Army installations. Appropriate levels of funding for infrastructure are nonnegotiable.

The Army Facility Strategy:

- provides stable funding for both modernization and sustainment;
- improves the status of installations over a 30-year period, in 10-year increments;
- focuses on living conditions, working conditions and training facilities;
- is estimated at \$10 billion for the initial 10-year increment;
- needs more funding to make it work—\$349 million for modernization and \$400 million for sustainment each year.



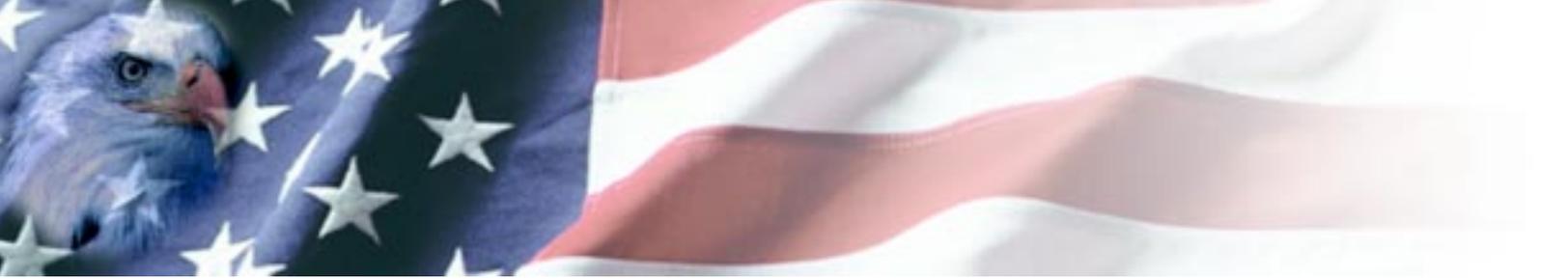
Key Points

The Army's crumbling infrastructure is a serious readiness issue that must be fixed now. Congress and DoD must:

- invest in the Army's Transformation. This investment requires synchronization to ensure the full effectiveness of every dollar spent. During this transformation, reconfigured and realigned units will require facilities; new deployment timelines will require facility enhancements; communications infrastructure will require upgrading for today's technology and to meet soldier and mission demands; and training facilities will require upgrading and modernization to keep units ready.
- fully fund the Army Facility Strategy. Underfunding of sustainment and/or modernization can have an accelerative impact (death spiral). Army installations need to decrease their capacity and increase their funding to preserve current readiness.
- continue to invest in information technology, through focused investments, by building upon barracks and strategic mobility program successes.
- support a transformation to industry practices as an effective means of fixing infrastructure.

The Army must:

- implement the Facility Strategy. The need to modernize and sustain mission-critical facilities is urgent. The Army Facility Strategy meets those current needs by providing stable funding, improving the status of installations over 30 years, and managing a focused investment in infrastructure.
- actively seek and seize opportunities to realign and reengineer activities' business practices; facilitate programs that partner with industry to privatize noncore competencies.
- invest smarter, in mission-critical facilities, where it will have the most significant and lasting impact.
- continue to reduce the requirements by disposing of unneeded bases and facilities, while garnering efficiencies wherever possible.



Introduction

When Army budget director Major General Jerry Sinn told an audience of defense and industry leaders in suburban Washington in the spring of 2001 about roots destroying the sewer lines that lead to his house, he drew a rueful laugh from the audience. But the kicker, he said, was the question he was asked by the engineers: “How far is it to the gym?” The message: Don’t expect water and sewer service to your home today.

The armed forces’ crumbling infrastructure—from barracks to houses, offices, roads, utility systems (water, sewer, gas, electric), training ranges, etc.—is a serious readiness issue that is only worsening with time. President George Bush said on 13 February 2001 during his visit to Fort Stewart, Georgia, that the 3d Infantry Division is among the most deployed units in the Army, “but you live on a base that has some of the least developed infrastructure. . . . Two-thirds of your barracks need renovation.” Some buildings in which soldiers work date from World War II. The situation with family housing on the installation is no better.* Repairs to buildings, utilities and streets are years behind schedule. The \$5 billion for needed repairs set aside by the Department of Defense (DoD) covers about 70 percent of the requirement. In short, that means DoD is funding only relief for catastrophic failure. And the

working and living conditions at Fort Stewart are not the worst in the Army!

Then Governor and now President Bush, other serving administration officials and members of Congress have recognized the importance of resources for the military in general, and specifically infrastructure, to the readiness of the armed forces.

Not since the years before Pearl Harbor has our investment in national defense been so low as a percentage of [gross national product]. Yet rarely has our military been so freely used—an average of one deployment every nine weeks in the last few years. Since the end of the Cold War, our ground forces have been deployed more frequently, while our defense budget has fallen by nearly 40 percent. Something has to give, and it’s giving. Resources are overstretched.

Governor George W. Bush
The Citadel, 23 September 1999

The United States needs a \$32.6 billion increase in defense spending to improve training, readiness and quality of life for U.S. troops following a period of neglect.

President George W. Bush
Radio address, 30 June 2001

Over much of the 1990s, the U.S. has simultaneously underfunded and overused the force, and it has taken a toll. . . . Asked to do more with less, they have saluted and done their best, but it has been at the cost of investment in infrastructure, in maintenance, and in procurement.

Secretary of Defense Donald H. Rumsfeld
Testimony before House and Senate
Armed Services Committees, 28 June 2001



*For more detailed information about the family housing issue, see AUSA’s Institute of Land Warfare, *Crisis in Military Housing . . . If Only the Walls Could Talk*, AUSA Torchbearer Report on Housing and Well-being (Arlington, Va.: Association of the United States Army, September 2000).



Background

U.S. Army Infrastructure

Understanding Army infrastructure and its impact on the force begins with an understanding of Army installations and their relationship to readiness.

Army installations are the platforms supporting readiness of U.S. Army units. They provide the places where soldiers live, work and train. Army installations are the foundation of the force. They are the landowners, the workplaces, the training bases, the service providers, and the homes of community and family for the Army.

The installation has many components:

- It is the Army's infrastructure. It has land, water and airspace. It has the buildings, roads, airfields, utilities and services of any city.
- As the custodian of real property, it is the focal point of the Army's environmental stewardship. As industrial plants, installations face the challenge of America's legacy problems, its conservation needs and its future pollution-prevention measures. They are home to threatened and endangered species, historic sites, archaeological resources and artifacts.
- Installations are the pivot point for the transformation of the Army's business processes. The needs of the fighting Army and the Army residential communities are met through a complex series of business processes that are changing to meet the competitive nature of commerce in the 21st century.
- Last but certainly not least, the installation is the heart of the Army community. It provides housing to soldiers and families. It is shopping and child care centers; morale, welfare and recreation venues; hospitals; and cemeteries.

One of the messages I want to bring to you is that as we look at what is core to the Army and what is not core to the Army, every chance we get to get private capital in our name to help us out with noncore activities and every chance we get to outsource or privatize those activities with the right business proposition, we are going to do that.

Secretary of the Army Thomas E. White
AUSA Institute of Land Warfare Breakfast,
1 August 2001

Because we've taken money away from bases and spent it on deployments, our bases are falling apart. . . . It's absolutely a national disgrace that we've allowed it to happen. . . . What we have seen can only be described as outrageous. This looks like something you would expect to see in a Third World country. . . . The ones who are suffering are the men and women in uniform.

Representative Curt Weldon (R-PA)
Chairman, House Armed Services Committee's
Readiness Subcommittee, during an August 2001
tour of military bases around the country

Is help on the way?





Did you know . . . ?

Army installations are home and/or workplace for:

- ▶ 1.2 million active, Guard, and Reserve soldiers and Department of the Army civilians;
- ▶ more than 700,000 family members; and
- ▶ more than 600,000 retirees.

Army installations include:

- ▶ 162,000 buildings totaling almost one billion square feet;
- ▶ 100,000 family housing units;
- ▶ 28,000 miles of paved roads; and
- ▶ a physical plant with a replacement value of more than \$220 billion.

Source: HQ Department of the Army, Nov 2000

On 26 April 2001, in testimony before the House Subcommittee on Military Installations and Facilities, Major General Robert L. Van Antwerp, the Army's Assistant Chief of Staff for Installation Management, stated:

Today, we are a mission-ready military that is living, working and training on installations with serious infrastructure problems. However, quality facilities and robust power-projection platforms are essential to fully meet our combatant force requirements and soldier expectations. . . .

The poor facility condition is the result of many years of underfunding real property maintenance [RPM] needs. The average RPM funding over the past 10 years has been approximately 60 percent. In FY 2001, the RPM requirement was \$2.46 billion, but

Challenge

The Underfunded and Decaying Army Infrastructure

Years of underfunding the infrastructure that supports our armed forces have taken their toll. The Army has had to sacrifice the investment needed to maintain and modernize its infrastructure to sustain commitments elsewhere in the world and to maintain warfighting readiness. Army Chief of Staff General Eric K. Shinseki testified on 27 September 2000 to the House Armed Services Committee, "We have deferred revitalization of our facilities. The DoD benchmark calls for complete renewal of facilities every 57 years. With current [FY 2001] funding, it will take the Army 157 years to fully revitalize our infrastructure."





available funding was only \$1.75 billion or 70 percent of the requirement. A good example of this underfunding is Fort Sill [Oklahoma], where 10 years ago it had a budget of \$178 million to support training and operate the installation. Today [2001] it has the same missions but is funded at only \$100 million. This means that Fort Sill, like many other installations, has stopped doing preventive maintenance and only does facility breakdown and emergency repairs.

The condition of facilities located on U.S. installations overseas is even more dismal. According to General Joseph W. Ralston, Commander in Chief, U.S. European Command (in *Excellent Facilities for Superior Soldiers*, U.S. Army Europe, February 2001), “EUCOM’s infrastructure assets are seriously deteriorated due to a long-standing pattern of inadequate funding. . . . This shortfall continues to drastically impact theater readiness and quality of life.

On 27 June 2001, before the Subcommittee on Military Construction of the House Appropriations Committee, General Thomas A. Schwartz, Commander in Chief, United Nations Command/Combined Forces Command and Commander, United States Forces Korea, stated, “The infrastructure that supports our servicemembers in the Republic of Korea is . . . in a



state of severe disrepair. Underfunding of sustainment, restoration and modernization [SRM] in the past has exacerbated our serious problem with troop housing and work areas. Because SRM funding has not been adequate in the past, our current electrical power and water distribution systems are now near total collapse. This has tremendous readiness implications if it is not fixed today. The extent of our water and electricity problem is best illustrated by the fact that in 1999 and 2000 alone, the command suffered 556 electrical power and 604 water supply outages from decaying infrastructure.”

According to General Van Antwerp:

The effects of underfunding only get worse as our facilities age. The average age of our buildings is 40 years. Our utility systems are even worse. Many of them are older than 50 years and have more than exceeded their expected life span. Failures are frequent and may be catastrophic should a gas line fail, causing an explosion, or water line fail such that water or water pressure is not available for emergencies. Fort Hood, Texas, in one week this year alone, has had four major water line breaks in their 10–16-inch water lines. At Camp Carroll, Korea, last year, there were 20





major power outages severely impacting quality of life and [that] could have had major mission impacts if not corrected. This all adds up to the Army having facilities and infrastructure that are only marginally mission capable and their condition continues to get worse.

The challenges of sustaining and improving the infrastructure of the Army are compounded in the effort to maintain reserve component facilities. Characteristics such as geographic dispersion and lack of economies of scale for infrastructure services have compounded the funding at a level less than actual requirements. Historically, the states have been subject to individual projects added late in the annual appropriations cycle as budget line items, which hinders a systems-wide focus on Army Reserve and Army National Guard priorities. As a result of an average funding for the reserve components of approximately 70 percent of minimum-sustainment real property maintenance, and the hit-or-miss nature of obtaining individual project authorization, vitally needed facilities continue to age without revitalization.

In summary, Army installations are places to equip, train, sustain and deploy the force in support of the National Military Strategy. They also represent the Army to the nation; this is especially true for National Guard Armories and Reserve Centers, which represent

the only Army installations most citizens see on a regular basis. The quality of our installations is a measure of the nation's commitment to the soldiers who defend it.

After a decade-long funding of 60 percent of the minimum sustaining requirement, Army facilities on installations have:

- an average age of 40 years;
- a Fiscal Year 2002 replacement cycle of approximately 90 years;
- a backlog of repairs and maintenance of more than \$17 billion; and
- a C-3 or C-4 rating (the two lowest ratings) for two-thirds of them.



The end result is world-class units and soldiers stationed on third-class installations.

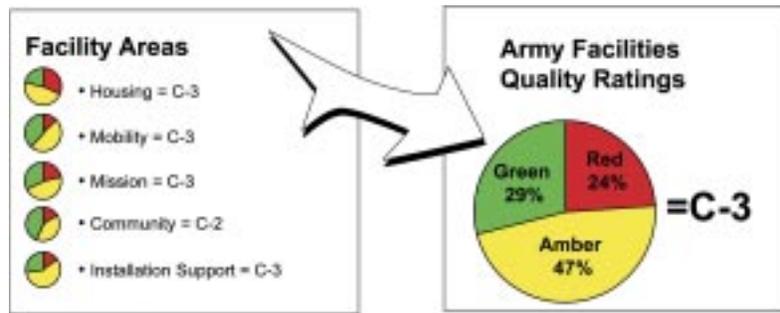


Installation Status Report

Condition of Army Facilities

The Army's annual Installation Status Report (ISR) measures the condition and quantity of Army facilities. According to the Fiscal Year 2000 report, the Army is C-3 overall. Facility conditions are

evaluated as good (green), fair (amber) or bad (red). All Army facilities are grouped into categories that are further grouped into facilities areas, as shown below.



C-Rating for Building Groups

- C-1: Supports Mission
- C-2: Supports Majority of Assigned Missions
- C-3: Impairs Mission Performance
- C-4: Significantly Impairs Mission Performance

Sustainment, Restoration & Modernization (SRM) and Facilities Degradation

Historic funding levels have paid for only about 60 percent of the annual amount required to sustain facilities in their current condition. Current SRM funding levels, if not increased, will lead to continued facilities decline.

Facilities Category	FY	00	02	04	06	08	10	12	14	16	18	20	22	24	26	28	30	32
Training Ranges/Areas		C2	C3	C3	C3	C3	C3	C3										
Maintenance		C3	C3	C3	C3	C3	C3	C4										
Production		C2	C2	C3	C4	C4												
Training / Instruction		C3	C3	C3	C3	C3	C3	C4										
Research & Development		C2	C2	C2	C3	C3	C3	C3	C3	C4								
Supply & Storage		C2	C3	C4	C4	C4	C4	C4										
Administrative		C3	C4															
Information Management		C3	C4															
Road & Trail Network		C3																
Railroads		C2	C2	C2	C3													
Airfields		C2	C3															
Airfield Pavements		C3																
Ports		C3	C3	C3	C3	C3	C3	C4										
Unaccompanied Housing		C3	C3	C3	C3	C3	C3	C4										
Enlisted Unaccompanied Housing		C3	C3	C3	C2	C2	C2	C1	C2	C3	C3	C3						
Dining		C3	C3	C3	C3	C4												
Post Exchange		C2	C2	C3	C3	C3	C3	C3	C4									
Child Development Centers		C1	C1	C2	C2	C2	C3	C3	C3	C3	C3	C4						
Community Support		C3	C4	C4	C4	C4	C4	C4										
Dependent Schools		C2	C3	C4														
Heating & Airconditioning		C4																
Electric & Gas		C3	C4	C4	C4	C4	C4											
Water		C3	C3	C3	C3	C3	C3	C4										
Sewer		C3	C4															



What Has Been Done

Despite being thwarted repeatedly by insufficient funding, the Army has not remained idle. Measures have been taken to:

- protect the land;
- reengineer business processes; and
- enhance quality of life on installations.

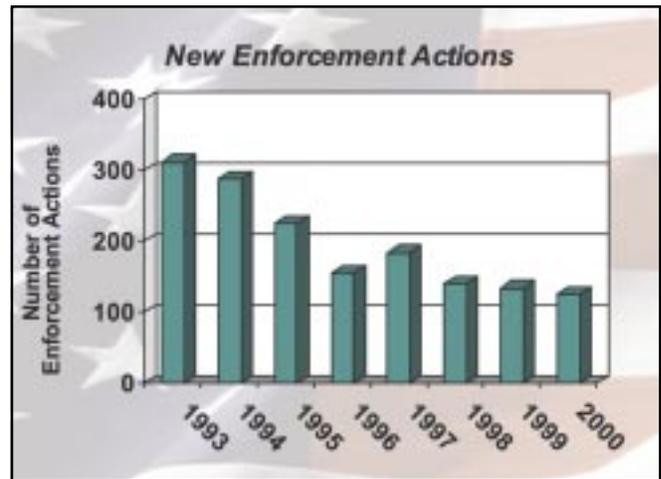
These measures have had a positive impact on maintaining readiness of the force.

Environmental Stewardship

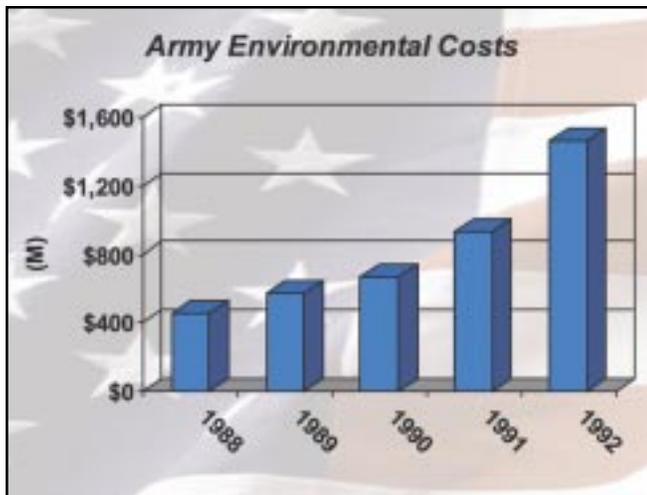
Since the Army is responsible for active, Reserve and federally owned National Guard bases representing almost 14 million acres of land held in trust for the American people, stewardship of the environment has received top priority. This stewardship has included:

- improved compliance with increasingly stringent environmental requirements. In the past eight years, the Army has reduced federal and state regulators' enforcement actions by 59 percent and has embarked on a systematic program (including \$450 million for

compliance programs and \$50 million for pollution prevention) to build new facilities and adopt new procedures that pollute less.

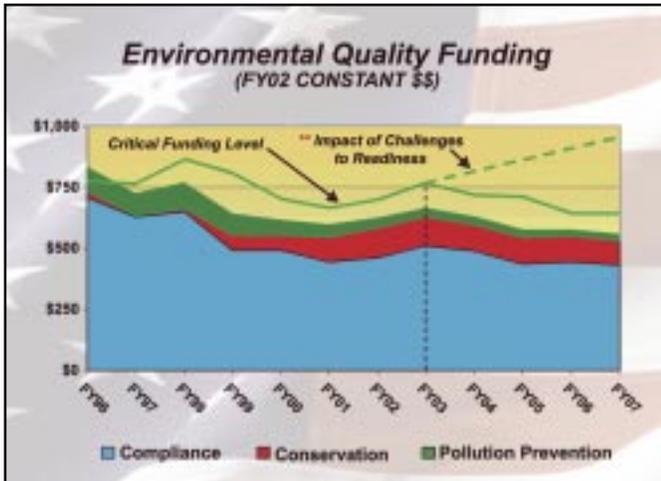


Source: HQ Department of the Army, Nov 2000



Source: HQ Department of the Army, Nov 2000

- increased investment in and development of new technologies. The Army is investing in research and emerging technologies to further reduce overall pollution and to specifically identify effective technologies for finding and cleaning up spent munitions. It also is developing less-polluting ammunition and range training facilities—including \$25 million for environmental technology programs, of which approximately \$10 million was allocated to develop unexploded ordnance (UXO) detection and discrimination technologies during FY 2001.
- continued commitment to clean up contamination. On all installations, the Army is committed to cleaning up residual contamination. It is on track to meet the Department of Defense goal of having all cleanup actions in place by 2014. As the DoD executive agent, the Army is also expediting the cleanup of all Formerly Used Defense Sites (FUDS).



Source: HQ Department of the Army, Feb 2001

The environmental program funding trends reflect a program that has remained relatively stable in the past and is projected to remain so into the future—in terms of current-year budget dollars dedicated to the program. The portion of the program that deals with the present and the future—compliance, conservation, pollution prevention, integrated training area management (ITAM), and technology—is consistently funded at about the \$700 million level. The portion of the program that deals with past incidents—restoration, Base Realignment and Closure (BRAC) cleanup, and FUDS cleanup—fluctuates around the \$800 million level.

However, the environmental quality effort—compliance, conservation and pollution prevention—viewed in constant dollars presents a different perspective of the overall health of the Army’s environmental program. **The Army’s environmental quality investment may not keep pace with the environmental challenges to readiness.**



Army Business Processes

The challenges of flat or declining purchasing power, together with increasing requirements, have triggered over the past decade a review of Army delivery processes. Each “core” service mission process has been examined for possible elimination, outsourcing or privatization. Some have changed; others are just now evolving.

Privatization of military family housing is one process that has changed. To address the military family housing challenge, Congress passed the 1996 Military Housing Privatization Initiative. This legislation authorized the services to attract private-sector expertise and capital for improving housing facilities and services provided to military members and their families. This led the Army to develop its Residential Communities Initiative (RCI), which began as a privatization initiative at Fort Carson, Colorado, followed by three other pilot sites: Fort Hood, Texas; Fort Lewis, Washington; and Fort Meade, Maryland. Twenty-five other sites are planned. Family housing privatization promises to correct family housing quality-of-life concerns in 15 years, rather than

the 130 years that past funding would have required. “You don’t have to look any further than the real estate situation, the Residential Communities Initiative with brand new housing and renovated housing,” Secretary of the Army Thomas E. White pointed out at a recent AUSA Institute of Land Warfare Breakfast. “It is the only way that we can modernize housing and fix the substandard problem that has been killing us with retention of family soldiers . . . in a reasonable amount of time.”



Privatization of utilities, conversely, has evolved slowly. Utilities on Army installations are another set of critical facilities in very poor condition. A rough order-of-magnitude cost to upgrade and modernize these systems with Army funding has been estimated at approximately \$5 billion. The Army has 320 systems on installations in the continental United States (CONUS) alone that are being evaluated for possible privatization. The Army transferred 13 systems and exempted 28 systems for economic or security reasons in the program's first two years, fiscal years 1999 and 2000. The program is under a Defense Reform Initiative (DRI) Program mandate to complete all initiatives, award all privatization contracts or exempt systems, by the end of FY 2003. The legislative authority for privatizing DoD-owned utility systems requires the use of the competitive procurement process. Competition and changing regulation of the utility industries have led to a number of contractor protests and court challenges, which impacts the ability to maintain the DRI schedule. Much work remains.



Another challenge resides in the energy program. There is great potential for dramatic increases in facility energy costs, due to short-term supply problems and pipeline delivery problems in the southwest sections of

CONUS. Natural gas, heating oil and electricity prices have increased substantially. Electricity rates have been impacted by natural gas price increases and industry deregulation. The Army budget's utility account supplemental for FY 2001 was \$172 million.

(Note: The impact of energy cost increases would have been far worse had the Army not implemented an Energy Management Program, in accordance with Executive Order 13123, to reduce facility energy usage by 35 percent by 2010 from a 1985 baseline. While the Army will not see dollar savings from this program, since the contractor recoups his investment costs from the savings generated, the Army is receiving new equipment and infrastructure improvements. Yet there may still be a more effective way to reinvent this process which would create incentives to save dollars.)

One newly created business process has provided immediate results. The Installation Status Report (ISR) is the management tool to provide an assessment of facilities at each installation on an annual basis. Using the Installation Status Report, senior leadership can see and understand the condition of Army facilities. With the addition of the base operations services and environmental ratings in the future, these reports will capture the full range of installation conditions. The trend in ISR ratings reflects a condition of facilities that impairs responsiveness and mission performance. Army National Guard and Army Reserve Readiness Centers are C-4, the lowest rating, reflecting major functional deficiencies that significantly impair mission performance. Clearly, this is another indicator that there has been inadequate investment in sustaining the physical plants.

Finally, in concert with the Morale, Welfare and Recreation (MWR) and Family Programs, the Army and Air Force Exchange Service (AAFES) has implemented a centrally managed capital program, the Integrated Facilities Planning Process. This process



identifies facilities for both strategic and operational needs, and optimizes appropriated funding support and AAFES investments through increased emphasis on partnering, thus minimizing short-term fix-up expenditures that do not address the fundamental needs of the marketplace.

AAFES also evaluates opportunities to partner with the private sector in bringing high-quality goods and services to the military community. AAFES evaluates Public-Private Venture (PPV) opportunities as business programs, i.e., entering into franchise agreements with service providers. Examples are current relationships with Burger King, Popeye's, Taco Bell, Seattle's Best, Midas and Firestone.

The Army Community

Communities in which the infrastructure is positioned and where the business processes described above are carried out are located both overseas and in the continental United States. They serve as the platforms to support initial and advanced training, troop and equipment basing, maintaining, staging and force



projection. They house Army forces and support the complete Army family: active, retired, family members, civilians and contractors. They are a critical component in enabling the Army to meet its obligation to the National Military Strategy.

Funding for these communities is often the first to suffer when limited resources force commanders to make difficult resourcing decisions. Over time this has resulted in a cumulative

effect ranging from the inconvenience of deferrals to program and support structure decay. In an effort to meet the most pressing needs of Army commanders, there have been focused efforts—Quality of Life Enhancement, Defense (QOLE,D) funds and legislation—to support specific aspects of quality of life. It is essential that these efforts continue.

Responding to this demand for quality, in FY 2000 considerable effort was made to implement minimum baseline standards for MWR and Family Programs. These standards evolved from the guiding philosophy

as expressed by the Chief of Staff of the Army: "Soldiers are entitled to the same quality of life as is afforded the society they are pledged to defend." Securing additional funding to permit achievement of these standards is the resourcing emphasis over the next several years. Initial estimates indicate this will require an investment of at least \$108 million for programs and \$221 million for facilities over the period from 2003 to 2007. Program funding

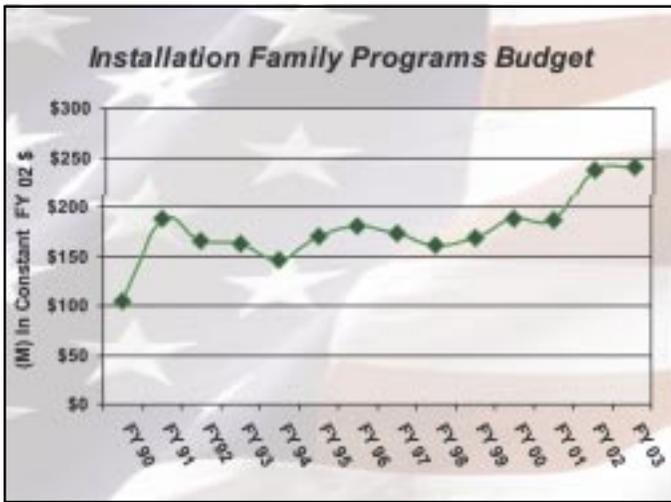


from 1989 to the present has shown growth but remains lower than necessary to achieve well-being across the force.

the first 10 years. Selected key mission-essential facilities, such as maintenance and operations facilities and ranges, would be modernized in 10-year increments. The estimated cost for the initial 10-year increment of improvements is \$10 billion, with an overall 30-year cost of approximately \$15–18 billion. The strategy also includes an estimated \$2.0 billion annual funding requirement to provide minimal sustainment of existing facilities to adequately maintain those revitalized.

Key to a successful facility strategy is adequate funding in both investment and sustainment. Failure to adequately resource sustainment simply negates over time the inroads made by investment. Two examples substantiate this impact:

- Since 1994, the Army has focused its investment in barracks projects to improve soldier quality of life. This program was approved by the Secretary of Defense in 1995 and set new standards for permanent-party barracks. The Army developed a brigade-sized unit complex that not only provided private rooms in the barracks but also included unit administration, supply and storage areas, and dining facilities. Approximately 60 percent of the Army's



Source: HQ Department of the Army, Nov 2000

In sum, much has already been done in the areas of stewardship of the environment, improvement in business processes, and upgrades in quality of life on installations. However, much work remains.

What Is Needed

Facility Strategy

To address the needs of an aging and deteriorating facility infrastructure, along with the challenge to provide vibrant, livable family communities, the Army Facility Strategy has been developed. A coherent plan to address the need to modernize and sustain mission-critical facilities, the strategy is a targeted investment in new facilities to improve facility conditions and address shortfalls. The long-term goal of this plan is to improve the overall status of installation facilities over a 30-year period. The plan would also improve the conditions of one-third of both the Army Reserve Centers and the Army National Guard Armories within





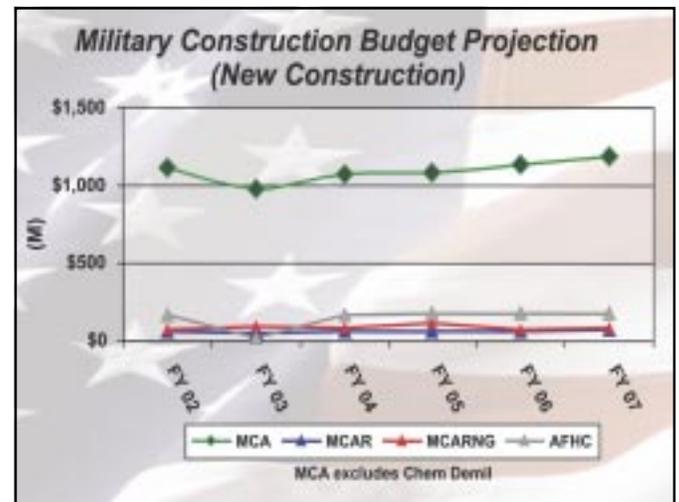
130,000 barracks spaces meet the 1+1 standard this year (1+1 denotes two soldiers living in a barracks room configured as a suite with individual sleeping areas and a common core). Additional plans call for an investment of \$4.1 billion in Military Construction, Army (MCA) funds between fiscal years 2003 and 2008, supplemented by \$0.6 billion in Real Property Maintenance (RPM) to fix barracks worldwide to comply with the Defense Planning Guidance. Unfortunately there are not sufficient annual sustainment dollars to protect Army facilities, therefore putting the barracks investment at risk. Scarce maintenance funding is being spent on other failing buildings rather than on barracks. Five years after the barracks program is completed and the last of the newly constructed or renovated barracks are occupied, the first barracks constructed in 1994 and 1995 will be 22 years old and categorized as “red”—failed or failing by Installation Status Report criteria, unless maintained by sustainment funding.

17 seaports and 11 ammunition depots or plants make up the Army’s power-projection platform locations. Current Army spending is \$4.3 billion to construct or renovate mobilization- and deployment-related facilities such as container-handling facilities, ammunition complexes, railyards, runway and apron expansions, and access roads as part of this critical initiative. Although the program is scheduled for completion by FY 2003, any changes in force structure and stationing may result in a follow-on phase.

Despite the focused successes of the barracks and strategic mobility programs, the Army’s military construction program is seriously underfunded. Military construction requirements exceed funding levels by an average annual amount of \$2.8 billion.



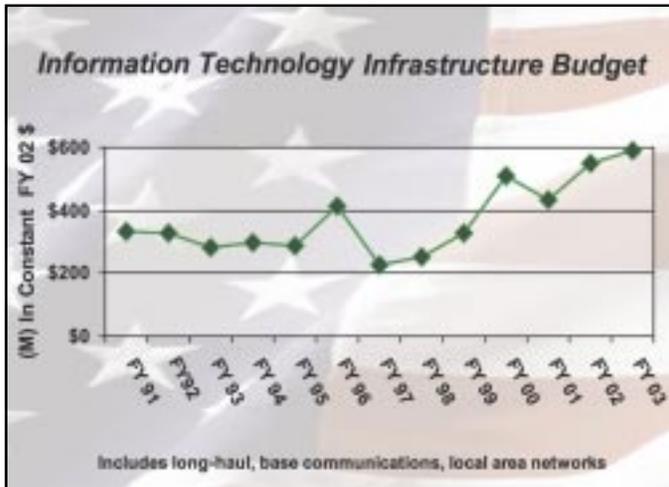
Source: HQ Department of the Army, Nov 2000



Source: HQ Department of the Army, Nov 2000

- Heavy investment by the Army in the Strategic Mobility Program upgraded power-projection platforms to meet deployment timelines. In the continental United States, 15 installations, 14 airfields,

Changes in communications and computing technology have had an impact on the Army’s installation infrastructure. New facilities demand state-of-the-art information technology features. Old facilities require upgrades to meet operational requirements. Even simple facilities like soldier barracks and family housing are changing to meet the needs and expectations of technology-literate soldiers and their families.



Source: HQ Department of the Army, Nov 2000

Congress and the Department of Defense must commit to adequately funding the Army Facility Strategy—sustainment and modernization—to remove the current impact on mission performance and reverse the deterioration trend.

Environment

In addition to implementation of a comprehensive facility strategy, good stewardship of public land and trusts must continue. Protection of endangered species has impacted both the use of existing training facilities and acquisition of additional land needed to hone soldiers' warfighting skills and enhance maneuver training. The regulator restriction that prohibits the use of high explosives and pyrotechnics at the Massachusetts Military Reservation (MMR) has impacted the use of live-fire ranges. The development of increasingly sensitive test equipment that accurately detects lower contamination levels is raising the level of cleanup standards, which then increases requirements. **What is needed is a continuous review of the environmental program's funding levels and associated risks. Funding must remain adequate.**

Community

Another means to enhance infrastructure is to partner with the private sector to augment the traditional delivery

of Morale, Welfare and Recreation facilities and services for Army soldiers and families in Public-Private Venture (PPV) programs. PPVs offer installation commanders the opportunity to leverage and maximize the value of installation real estate through partnerships, allowing the commanders to focus on core missions. They bring private-sector expertise to these functions, thus improving soldier and family well-being while avoiding capital investment. With PPVs there is no appropriated-fund requirement for maintenance and repair. The private partner is responsible for financing, designing, constructing, operating and maintaining the facility over the life of the lease. Installations receive a supplemental revenue stream to support other MWR services and programs for soldiers and their families.

Four PPV facilities were opened over the past two years, resulting in a \$31.5 million nonappropriated-fund construction cost avoidance. The Army's contribution for construction of these facilities is zero dollars. Over the next 25 to 35 years of operation (length of the lease), these facilities will incur even greater savings as the costs to operate, maintain and upgrade will be the responsibility of the developer. These facilities will generate approximately \$11 million for the installation's MWR fund over the life of the lease. Lease payments will generate approximately \$775 million (to the U.S. Treasury) during the lease term and will be returned to the major Army command (MACOM)/installation for environmental restoration and maintenance and repair. The MWR PPV program currently includes 18 additional projects valued at approximately \$80 million. This program must continue.

Utilities

The Army must reengineer its approach to managing utility systems to expedite successes in privatization. While utility systems are not a core competency, the Army must ensure fully functional systems by making progress toward the successful transfer of the systems to industry partners. Benefits will accrue if the Army can tap into industry business practices that reduce the



cost of operations and if the Army can work with industry to generate revenue that can be shared to offset infrastructure operation and maintenance (O&M) costs.

Areas that require work include refining and streamlining the solicitation process; tailoring the process to foster a partnership approach rather than one that responds to Army defined requirements; and expanding the resources available to assist installations with project implementation.

What Must Be Done

The Army plays a vital role in the execution of the National Military Strategy. It provides flexible military capabilities across the full spectrum of military operations—from humanitarian assistance to theater-of-war combat. The Army must sustain a force of high-quality, well-trained people; acquire and maintain the right mix of weapons and equipment; and **maintain effective infrastructure and power-projection platforms to remain ready.**

We must close the gap between the requirements of our force structure and the capabilities of the Army's installations. There are several imperatives to making this happen:





Congress and DoD must:

- invest in the Army’s Transformation. This investment requires synchronization to ensure the full effectiveness of every dollar spent. During this Transformation, reconfigured and realigned units will require facilities; new deployment timelines will require facility enhancements; communications infrastructure will require upgrading for today’s technology and to meet soldier and mission demands; and training facilities will require upgrading and modernization to keep units ready.



- fully fund the Army Facility Strategy. Underfunding of sustainment and/or modernization can have an accelerative impact (death spiral). Army installations must decrease their capacity and increase their funding to preserve current readiness.
- continue to invest in information technology, through focused investments, by building upon barracks and strategic mobility program successes.
- support a transformation to industry practices as an effective means of fixing infrastructure.

The Army must:

- implement the Facility Strategy. The need to modernize and sustain mission-critical facilities is urgent. The Army Facility Strategy meets those

current needs by providing stable funding, improving the status of installations over 30 years, and managing a massive investment in infrastructure.



- actively seek and seize opportunities to realign and reengineer activities’ business practices; facilitate programs that partner with industry to privatize noncore competencies.
- invest smarter, in mission-critical facilities, where it will have the most significant and lasting impact.
- continue to reduce the requirements by disposing of unneeded bases and facilities, while garnering efficiencies wherever possible.





Torchbearer Message



The armed forces' crumbling infrastructure—from barracks to houses, offices, roads, utility systems (water, sewer, gas, electric), training ranges, etc.—is a serious readiness issue that is only worsening with time. Years of underfunding the infrastructure—the power-projection platforms—supporting our armed forces have taken their toll. The Army has had to sacrifice the investment needed to maintain and modernize its infrastructure to sustain commitments elsewhere in the world and to maintain warfighting readiness.

After a decade-long funding of 60 percent of the minimum sustaining requirement, Army facilities on installations have:

- an average age of 40 years;
- a Fiscal Year 2002 replacement cycle of approximately 90 years;
- a backlog of repairs and maintenance of more than \$17 billion; and
- a C-3 or C-4 readiness rating (the two lowest ratings) for two-thirds of them.

The end result is world-class units and soldiers (whose warfighting readiness is much higher at C-1 or C-2) that are stationed on third-class installations.

To remedy this situation, Congress and the Department of Defense must invest in the Army Transformation to include funding of sustainment, restoration and modernization of facilities. The Army Facility Strategy represents a focused investment in infrastructure.

The strategy focuses on living and working conditions as well as training facilities. It requires additional funding—\$349 million for modernization and \$400 million for sustainment each year—to close the gap between warfighting readiness of Army forces and the mission-support readiness of the installations. This is nonnegotiable.

The Army must examine each “core” service delivery process for possible elimination, outsourcing or privatization. The success of the housing privatization can serve as the model for other privatization efforts. Better business processes coupled with continuing emphasis on environmental stewardship will accelerate infrastructure improvement.

Army infrastructure must be fixed now. To do anything less is a disservice to soldiers, their families and the nation they defend. Soldiers and their families deserve facilities that are safe and efficient and that do not impair their mission performance.

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To do anything less is a disservice
to soldiers, their families and the nation they defend.*



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