Army Worldwide Environment and Energy Conference 2000

"Sustainable Installations and Operations: Transforming the Army "

Conference Brief

CONFERENCE THEME

The Secretary of the Army sponsored the first Army Worldwide Environment and Energy Conference (AWEEC) in Atlanta, Georgia, on 4-7 December 2000. The theme of the conference was sustainment of Army installations and operations throughout the 21st Century. For the first time, Army senior leadership and field managers addressed both environmental and energy issues together as components of sustainable installations. Sustainable installations will minimize the use of non-renewable resources, minimize waste streams, protect the natural ecosystem, and provide for mission accomplishment within an expanding community. A key element of the conference was the presentation of the Army's Environmental Campaign Plan and Operational Directive.

Conference participants included 9 general officers, 8 senior executive service members, and more than 500 participants from the Army, Air Force, Department of Defense, Department of Energy, Environmental Protection Agency, state regulatory agencies, and industry. All major Army commands, more than 50 installations, and all of the overseas theater commands were represented. The conference consisted of 5 plenary sessions, 33 technical breakout sessions, and 3 town hall meetings.

Mr. Ray Clark, Principal Deputy Assistant Secretary of the Army for Installations and Environment, opened the AWEEC 2000 by introducing the Army's newly established management strategy for Army Environmental and Energy programs. He stressed the importance of meeting the Army's obligation to defend the nation while being good stewards of the nation's land entrusted for training and living. He emphasized the conference's focus on the need to integrate energy and natural resource management, sustainable design, construction and procurement, and environmental protection to ensure the Army's long-term successful stewardship of its installations, ranges, and operations. Mr. Clark introduced a video tape of the Honorable Gregory R. Dahlberg, Under Secretary of the Army, who spoke to the attendees about the importance of the meeting and about his and the Vice Chief of Staff's desire to move the Army ahead in environmental and energy management. He described the new policymaking bodies established to deal with environmental and energy issues at the senior leadership level.

Other Keynote Speakers

The Honorable Mahlon Apgar IV, Assistant Secretary of the Army for Installations and Environment, challenged the attendees to look for new ways to manage effectively and create sustainable installations. He outlined 12 key principles for sustainability of the built and natural environment.

LTG Lawson W. Magruder, III, Deputy Commanding General, FORSCOM, outlined the Army's transformation and discussed the importance of sustainable Army environments, installations and ranges to transformation efforts.

The Honorable Romulo L. Diaz, Jr., Assistant Administrator of the US Environmental Protection Agency encouraged the Army to find ways to partner with EPA and to recognize them as a more robust agency than simply compliance regulators.

Lieutenant Governor Jefferson Keel, Chickasaw Nation, discussed government to government relations between tribes and the federal government and the need for consultation on issues that impact current and former tribal lands and trust responsibilities.

Mr. Robert Dreher, of the law firm Troutman Sandor, previously Deputy General Counsel of the USEPA and lead litagator of the Sierra Club Legal Defense Fund, discussed the role of law in current American society. He also cited the very positive approach taken by Fort Bragg in working with non-government organizations.

BG William Webster, the Army Staff's Director of Training emphasized the significance of training land to the Army Transformation, and the importance of stewardship in sustaining training lands.

PLENARY SESSIONS

Plenary sessions provided an update on the Army Environmental Program, addressed land use, ecosystem

management, energy management, and introduced the concept of sustainable installations as a goal that requires the integration and coordination of many separate programs.

Army Environmental Program/ Campaign Plan

Mr. Raymond J. Fatz, Deputy Assistant Secretary of the Army (Environment, Safety and Occupational Health) led a discussion of the status of the Army Environmental Program and recommendations from the Senior Environmental Leadership Conference 2000 (SELC). Mr. Fatz highlighted the Army Environmental Campaign Plan and Operational Directive, signed 1 December 2000, and the establishment of the Transformation Environmental Management Group to oversee implementation of the Directive and the integration of environment and energy in support of the transformation of the Army. Breakout sessions provided follow-up on SELC recommendations and progress in the following areas:

- Requirements, Acquisition and Logistics – led by MG James Snider
- Training and Doctrine – led by MG Anders B. Aadland
- Installation Management – led by MG Robert L. Van Antwerp
- Operations – led by BG Stephen Speaks.

Land Use and Ecosystem Management

Mr. Clark reminded conference participants that Army installations are part of a regional ecosystem and that Army land use management practices must adjust to this broader context. As land trustees, the Army must use its land and manage natural resources within the context of joint regional planning. This includes understanding regulatory requirements, working closely with other federal land managers, and addressing the concerns of local communities. Installation planning must consider community growth near Army installations and impacts on operations and activities as well as Army impacts on communities and the regional ecosystem. He also announced a new Army Forestry Policy that emphasizes mission support and ecosystem management rather than annual income.

Speakers highlighted examples of Army installations successfully working in partnership with local communities and private interest groups to achieve mutually beneficial goals. One excellent model is the Sandhills Project at Fort Bragg, which enhances Army training through an innovative habitat conservation project. In an agreement involving Fort Bragg, The Nature Conservancy (TNC), and the Army Environmental Center, and supported by North Carolina and the Fish and Wildlife Service (FWS), the TNC will protect habitat through purchase of land or Conservation Easements from willing sellers. The Army will contribute to the TNC effort and will be allowed to train on the lands. Army training is enhanced through increased training area, reduced conservation pressures on current training lands, and through improved prospects for the recovery of the red cockaded woodpecker – an endangered species that has constrained Fort Bragg training areas. The FWS is now establishing additional wildlife preserves to help support the project.

CHALLENGES AND OPPORTUNITIES

- To seek and exploit opportunities for installations, regulators, local communities, and other stakeholders to work together on regional issues.
- To integrate regional ecosystem and land management concepts and priority needs into Army master planning.
- To develop master plans for all Army installations that incorporate the concepts of ecosystem management and sustainability.

Energy Management and Sustainable Design

Speakers from the Department of Energy, Environmental Protection Agency, industry, and Army discussed the importance of conserving energy and designing facilities for long-term economic sustainability. The energy demand in the United States continues to grow dramatically, and, in 2000 some energy costs increased substantially. The Army spent about $800 million on facility energy last year and depends on Energy Saving Performance Contracts for conservation measures. Installation energy management has a significant and growing impact on mission resources.

Our increasing dependence on imported fuels is a key national security issue. We currently meet about 50% of our energy requirement with foreign sources, and that is projected to increase to 66% in the next few years

The Army must continue to explore alternatives to fossil fuels, considering not only first costs, but also life-cycle costs. Industry must be a key partner in providing alternative power and promoting research and development. In an initiative to lower long-term costs, the Fort Bliss/White Sands Missile Range request to deliver 50MW from the wind industry was announced.

The Army can realize benefits in energy conservation on the battlefield as well as within the garrison fence line. Wind and solar power pilot operations are underway or planned at installations in the Southwest, and backpack portable solar panels are powering field equipment for light units. Advances in alternative fuels and fuel efficiency have the potential to dramatically reduce the logistical trains and thermal signatures of tactical units.

CHALLENGES AND OPPORTUNITIES

- To design, build and maintain energy efficient buildings.
- To develop and deploy alternative fuel vehicles in garrison and the interim force.
- To develop an advanced energy strategy and innovative conservation measures that can significantly reduce energy requirements.
- To invest in and develop alternative installation energy sources.
- To partner with industry and academia to promote conservation and research and development.
- To establish an energy baseline, set short- and long-term goals, track progress, and remain committed to conservation and sustainable design.

Sustainable Installations—Built Environments

Installations are, first, platforms for training and deploying military forces, but they are also homes and communities for soldiers and their families and daily present a picture of the Army's best "face" to the nation. As we transform to a more responsive, deployable, agile, versatile, lethal, survivable, and sustainable force, our installations may become larger, fewer in number and multipurpose. Installations will support evolving missions. Installation management will be affected by: readiness and training mission changes, growth of nearby communities, regional air and water quality, American Indian/Native Alaskan rights, land management, noise, pollution prevention, energy use, airspace availability, ecosystem/endangered species restrictions, and physical plant and installation carrying capacity, among other factors.

Sustainable planning and development must address long-term potential impacts of actions on the environment and surrounding communities to effectively meet current needs without compromising future environmental compliance and access to critical lands and facilities. The Army must act now to integrate environmental considerations into all operations and activities, establish effective two-way communication with supporting communities, consider the "natural" component during facility planning and design, and plan for the adaptive reuse of land and its inherent resources. A sustainable installation will reduce negative impacts on the surrounding community and minimize non-renewable resource use.

Many of the Army's excess World War II buildings were built with old growth timber that is now a rare and valuable resource that should not be wasted or destroyed in the demolition process. The Army is partnering with Habitat for Humanity to save demolition costs and resources while providing construction materials for low cost housing.

CHALLENGES AND OPPORTUNITIES

- To integrate environmental considerations into sustainable operations and activities.
- To track and leverage innovations in new facility design, construction, and management.
- To develop and implement sustainable installation and facility planning and development guidelines.
- To plan for and implement adaptive reuse of land and resources.
- To develop partnerships to implement innovative alternatives to building demolitions.

Sustainable Ranges

The Army Director of Training explained why the Army must maintain a live, constructive, and virtual training mix to support the Transformation. A trained force requires a mix of training lands from small arms ranges used for individual training to large maneuver training areas used for force-on-force exercises with blank ammunition, weapons simulators, and pyrotechnics. Transformation and new weapon systems will require larger ranges and multipurpose range complexes for direct and indirect fire training .

Today over 400 installations and sites have active ranges, including over 110 large installations. Ranges support both the active and reserve components in all 50 states and overseas territories. Today's live fire range challenges—digitized systems, increased weapon range and lethality, increased focus on urban combat, expanding depth and breadth of the battle space, and unexploded ordnance (UXO) management—mandate that the Army retain needed access to and get the most out of key range complexes.

Integrated range planning concepts, such as those being implemented at Fort Stewart, Georgia, help address these issues. Such proactive, coordinated range sustainment management programs are essential for installations to sustain availability of ranges and other training areas while minimizing potential impacts to human health and the environment.

Mr. Clark announced that the Army is now programmed to spend $70 million in research and development for UXO management.

Challenges and Opportunities

- To plan for and ensure long-term access to ranges and training areas needed by the interim and objective forces while protecting the natural resources on them.
- To address UXO range maintenance issues.
- To develop better understanding of the fate and transport of potentially hazardous/toxic components of explosives and propellants.
- To consider and address long-term impacts that range activities can have on the continued viability of soil and water resources.

Future Directions

The Army is at a crucial moment in its history. It has embarked on a transformation that will significantly affect how it fights, does business, and lives. The challenge for installation and unit commanders is to find ways to accommodate this change—and associated changes in the society—while sustaining installations and combat readiness.

Many key actions are underway to ensure that we successfully meet the sustainment and compliance challenges that lie ahead. Partnering with industry, regulators, local communities, and other state and federal agencies in joint stewardship forms the basis of sound, long-term management of resources and supporting ecosystems. Linking energy with environmental management and pollution prevention (P2) programs, resources, and goals will also help bridge the gap to a sustainable future. Linking procurement and construction to both energy and environmental requirements is vital to real progress in sustainment. The Army must continue to develop and field innovative and renewable energy technologies such as wind and solar power, fuel cells, microturbines, and others to increase efficiency, reduce emissions, conserve precious resources, and sustain environmental compliance.

Proactive and coordinated range management programs increase the availability of ranges and other critical training areas and reduce potential long-term risks to human health and the environment.

Mr. Clark summed up the meeting by charging the participants with continuing the positive efforts that began with the SELC and AWEEC 2000. While the conference did not identify or address all of the potential long-term installation sustainability questions, it did effectively highlight key challenges and opportunities to support the Army installation management transformation program. The Army must programmatically link environmental protection/P2 with energy management and further link installation planning and building design and construction with environmental protection and energy efficiency. Finally, training and testing activities and facilities are inseparable from ecosystem management, and local communities must be considered and included when Army decisions may directly impact them.

The challenge is to create enduring installations that will support the Army indefinitely. To achieve that end, the Army must look for new ideas and adopt new technologies to effectively manage costs, environments, and facilities. We now have a comprehensive Environmental Campaign Plan and Operational Directive, the support of senior Army leadership, and the knowledge, skills, and people to get the job done.

The Army Energy and Environmental Policy Board will oversee program implementation and will track progress in meeting the challenges and taking advantage of opportunities. The Transformation Environmental Management Group will ensure the consistency of implementing efforts. Future SELCs will identify and program actions needed to address future challenges and opportunities, such as those identified in the AWEEC.

The Army Environmental Policy Institute will publish a comprehensive conference proceedings report early in 2001. Additional information and copies of conference presentations may be found at www.aepi.army.mil.

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