

Encroachment: Where National Security, Land Use, and the Environment Collide†

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Introduction

Sprawl is a phenomenon with wide-ranging implications for urban and suburban populations. One of the many definitions for sprawl includes “low-density development on the edges of cities and towns that is poorly planned, land-consumptive, automobile-dependent [and] designed without regard to its surroundings.”¹ Development away from the city center to the fringes of metropolitan areas began in earnest during the twentieth century, accelerating markedly in the later decades.² Attracted to the apparent comforts and ease of suburban living as opposed to the “corruption and density” of the city, Americans began an “exurban migration.”³

As the urban area expanded from the metropolitan center to pastures and woodlands once on the distant horizon, lands that saw little or no development on the outskirts of cities were now being targeted for suburban development.⁴ A natural consequence of developing once rural land was a depletion of the country’s natural resources.⁵ This spatial expansion caused by urban sprawl bred dependence upon automobiles for transportation, driving up both fuel consumption and traffic congestion.⁶ Yet, notwithstanding the seemingly self-destructive nature of sprawl, “suburbanization and sprawl” are realities of modern land use.⁷

This article considers another effect of urban sprawl: the encroachment of urban and suburban populations upon military installations,⁸ particularly training ranges.⁹ The Department of Defense (DOD)¹⁰ uses the term “encroachment” to describe “the cumulative result of any and all outside influences that inhibit normal military training and testing.”¹¹ According to the DOD, the eight encroachment issues of concern are “urban growth around military installations” and training ranges, radio frequency interference, “air pollution [and] noise pollution,” airspace interference, unexploded munitions, and “endangered species habitat and protected marine resources.”¹² The military identified urban sprawl as the primary source of encroachment in the United States and believes it will continue to present the greatest challenge in the future.¹³

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¹ ROBERT H. FREILICH, FROM SPRAWL TO SMART GROWTH: SUCCESSFUL LEGAL, PLANNING, & ENVIRONMENTAL SYSTEMS 16 (1999) (quoting RICHARD MOE, LINCOLN INSTITUTE OF PUBLIC POLICY, ALTERNATIVES TO SPRAWL 4 (1995)) (alteration in original).

² *Id.* at 2, 16 (explaining that post-World War II federal urban renewal programs to improve “housing, taxation, and transportation” actually advanced the “suburbanizing process”). For example, highway systems offered accessible transportation to the suburbs where people could purchase cheaper land to build homes. *Id.*

³ Edward J. Sullivan, *Comprehensive Planning & Smart Growth*, in TRENDS IN LAND USE LAW FROM A TO Z: ADULT USES TO ZONING 177 (Patricia E. Salkin ed., 2001) (citing KENNETH T. JACKSON, CRABGRASS FRONTIER, THE SUBURBANIZATION OF THE UNITED STATES (1984)).

⁴ See FREILICH, *supra* note 1, at 2 (estimating that suburban sprawl annually consumes one and a half percent of agricultural land).

⁵ *Id.*; see also Sullivan, *supra* note 3, at 177 (noting that “federally imposed clear air, water, and endangered species regulations” attempting to restore depleted natural resources thwart developers’ choices).

⁶ Sullivan, *supra* note 3, at 178.

⁷ See FREILICH, *supra* note 1, at 17 (indicating that sprawl “has become an institutionalized facet of American life”).

⁸ A military installation is any “base, camp, post, station, yard, center, or other activity under the jurisdiction of the [Department of Defense], without regard to the duration of operational control.” 10 U.S.C. § 2801(c)(2) (2005).

⁹ The phrase “training ranges” “refers to air, live-fire, ground maneuver, and sea ranges.” *Military Training: DOD Approach to Managing Encroachment on Training Ranges Still Evolving: Testimony Before the S. Comm. on Env’t and Pub. Works*, 107th Cong. 1 n.1 (2003) (statement of Barry W. Holman, General Accounting Office, Director, Defense Infrastructure Issues), available at <http://www.gao.gov/new.items/d03621t.pdf> (last visited May 20, 2005) [hereinafter *Holman Testimony*].

¹⁰ For purposes of this paper, DOD and “military” will be used interchangeably as the two share the same interests on the encroachment issue. See *id.* at 1.

¹¹ *Id.* at 1 n.2.

¹² *Id.* at 1; see also U.S. GEN. ACCOUNTING OFFICE, MILITARY TRAINING: DOD LACKS A COMPREHENSIVE PLAN TO MANAGE ENCROACHMENT ON TRAINING RANGES, REPORT NO. 02-6145, at 5-8 (2002) (describing the eight encroachment issues affecting military operations and training), available at

The source of this encroachment is not simply an expansion of urban centers. Originally, military installations were located in isolated areas because of the abundant supply of open land needed to provide adequate defense training and security.¹⁴ In addition to the natural trend of urban sprawl, military installations offered employment opportunities and created the need for goods and services that attracted people and businesses closer to military sites.¹⁵ The attraction of workers and service providers to the installations eventually created family communities, and before long, the urban area reached the training ranges.¹⁶ With such growth came the realization that “[i]ncompatible residential and commercial development patterns surrounding military bases can jeopardize an installation’s mission.”¹⁷

This article examines incompatible land uses related to encroachment and the remedies employed by both the military and civilian communities. Part I discusses the problem of urban sprawl around military installations to lay a foundational understanding of encroachment. Part II looks at measures taken by the military to ameliorate the encroachment problem, focusing particularly on collaborative planning efforts between military officials and state and local planning officials, in addition to the General Accounting Office’s (GAO) recommendation that the DOD develop a comprehensive plan to address encroachment on military installations. Part III examines the approaches taken by a number of state governments to combat encroachment. Finally, Part IV briefly considers why encroachment is an important issue for both military and civilian officials alike.

I. Encroachment: What Is It?

To accomplish its mission of defending and protecting the United States in armed conflict, the military must train and prepare soldiers in an environment as simulative of war as possible.¹⁸ “[W]ithout realistic combat training, particularly training with live ordnance, [the military is] unable to adequately prepare [its] young men and women for the operations and potential combat service which they may be required to perform in service to this Nation.”¹⁹ To conduct such training, some examples of the “[r]equired facilities include air ranges for air-to-air, air-to-ground, drop zone, and electronic combat training; live-fire ranges for artillery, armor, small arms, and munitions training; ground maneuver ranges to conduct realistic force-on-force and live-fire training at various unit levels; and sea ranges to conduct ship maneuvers for training.”²⁰ Needless to say, a large portion of the military’s training occurs on various types of terrain. Thus, vast, uninhabited land permits the development and maintenance of a military force equipped with the skills necessary to perform its mission under challenging and often life-threatening conditions.²¹

Military training exercises easily contribute to incidents related to the eight aforementioned DOD-identified encroachment issues. In fact, land use and planning decisions by individuals and municipalities neighboring military training ranges increasingly encroach on and impact the military in general and specifically training exercises.²² Military officials

<http://www.gao.gov/new.items/d02614.pdf> (last visited May 20, 2005) [hereinafter DOD LACKS A COMPREHENSIVE PLAN].

¹³ *Holman Testimony*, *supra* note 9, at 2 (explaining that encroachment interferes with the availability of training ranges and limits the kinds of training activities that can be performed).

¹⁴ Dep’t of Def., Office of Economic Adjustment, *Joint Land Use Study Program*, July 8, 2004, at 1, available at [http://www.oea.gov/OEAWeb.nsf/CEA72EC60031122885256E8300449772/\\$File/Jlus3pgr03.pdf](http://www.oea.gov/OEAWeb.nsf/CEA72EC60031122885256E8300449772/$File/Jlus3pgr03.pdf) (last visited May 20, 2005) [hereinafter *JLUS Program Description*].

¹⁵ *Id.*

¹⁶ *See id.* (noting that the enhancement of urban growth near military installations intensified struggles “between base operations and civilian advancement” and that unregulated urban development can interfere with the installation’s goals and operations).

¹⁷ NAT’L GOVERNOR’S ASSOC., CENTER FOR BEST PRACTICES, ISSUE BRIEF: STATE STRATEGIES TO ADDRESS ENCROACHMENT AT MILITARY INSTALLATIONS, 1 (2004) available at <http://www.nga.org/cda/files/032403MILITARY.PDF> (last visited Apr. 14, 2005) [hereinafter STATE STRATEGIES] (pointing out that encroachment endangers the public because people who live close to bases risk possible exposure to “artillery fire, aircraft noise, dust, and even accidents.”); *see also infra* notes 34-43 and accompanying text.

¹⁸ *USALSA REPORT: Environmental Law Division Notes: Encroachment: Putting the “Squeeze” on the Department of Defense*, 2001 ARMY LAW. 33, 33 (2001) [hereinafter *Envtl. Law Division Notes*].

¹⁹ *Challenges to National Security: Constraints on Military Training: Hearing Before the House Comm. on Gov’t Reform*, 107th Cong. 32 (2001) [hereinafter *Hearings*] (statement of Admiral William J. Fallon), available at http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=107_house_hearings&docid=f:75041.wais (last visited May 20, 2005); *see also id.* at 76 (statement of Lieutenant General Larry R. Ellis) (stating that military personnel “must train in the field and train often under conditions that replicate war fighting”).

²⁰ *Holman Testimony*, *supra* note 9, at 4.

²¹ *Hearings*, *supra* note 19, at 76 (statement of Lieutenant General Larry R. Ellis) (explaining that proper training, skill development, and modern weapons requires sufficient areas of land and different types of terrain ranges).

²² *Id.* (stating that “the Army’s training lands are now faced with the cumulative effects of over thirty years of progressive encroachment”).

consider the genesis of most encroachment issues to be the spatial growth of urban areas and the attraction of civilian job opportunities, noting that the growth rate around military installations exceeds the national average.²³

The most pressing encroachment concern for the military is the sprawl that frequently characterizes urban areas in the United States.²⁴ Sprawl has occurred gradually, with Americans relocating to the outskirts of urban areas since World War II.²⁵ Some common characteristics associated with sprawl include low-density development,²⁶ noncontiguous “leapfrog” development often consisting of single-family residences, and the consumption of otherwise exurban lands for development.²⁷ Notwithstanding the gradual sprawl of American cities in the second half of the twentieth century, “[u]ntil the last thirty years, [military] training lands had been remote areas with little residential or commercial development.”²⁸

Today, however, the secluded military installation appears to be a fast dwindling relic of days past, arguably lost to the greed of the “cappuccino cowboys.”²⁹ In what was quite logical at the time of development, military installations were located outside of urban areas.³⁰ Not only did these spacious areas on the outskirts of urban areas offer a training grounds solution to the confines of the city, but the dispersed population more readily lent itself to providing the requisite security to the civilian population.³¹ “Over time, however, installations drew people and businesses closer and closer to take advantage of civilian job opportunities offered by the installation and to provide the goods and services to support the installation’s operations.”³²

To be sure, “a symbiotic relationship” was fostered between the military installations and the sprawling urban areas surrounding them, with the installation enhancing the market for civilian businesses and employees, and the civilian economy offering the installation much needed goods and services.³³ However, this relationship became strained and marked by increased land use conflicts, presenting disadvantages to both civilian development and military uses.³⁴ For encroaching civilian developments, the impact of a nearby installation can include noise disruption,³⁵ safety risks,³⁶ and other aesthetic and environmental concerns.³⁷ Conversely, for the military, “urban development near the perimeter of active military bases impacts operational effectiveness, training, and readiness missions.”³⁸

²³ *Holman Testimony*, *supra* note 9, at 9; *see also* STATE STRATEGIES, *supra* note 17, at 1 (noting that “[e]ighty percent of communities surrounding military installations are growing at a rate higher than the national average”).

²⁴ *See Hearings*, *supra* note 19, at 105 (statement of Major General Edward Hanlon, Jr.) (describing encroachment “as pressure to curtail the military use of land, sea and air space in favor of nonmilitary uses” and identifying sprawl as the “root problem”).

²⁵ Jeremy R. Meredith, Note, *Sprawl and the New Urbanist Solution*, 89 VA. L. REV. 447, 448 (2003).

²⁶ Robert W. Burchell & Naveed A. Shad, *The Evolution of the Sprawl Debate in the United States*, 5 HASTINGS W.-NW. J. ENVTL. L. & POL’Y 137, 137, 140-41 (1999) (explaining that sprawl develops at a lower relative density than other types of suburban growth in the United States).

²⁷ *Id.*

²⁸ *Envtl. Law Division Notes*, *supra* note 18, at 34; *see also* *Citizens Concerned About Jet Noise, Inc. v. Dalton*, 48 F. Supp. 2d 582, 599, n.17 (E.D. Va. 1999) (in denying a request for injunctive relief brought by Virginia residents who live near the naval station to halt the transfer of 156 naval aircrafts to Naval Air Station Oceana (NAS), the court recognized that NAS Oceana was relatively isolated until the last twenty years).

²⁹ FREILICH, *supra* note 1, at 17 (referring to citizens who demand urban amenities such as “jacuzzi baths, great rooms, mammoth kitchens, and five-acre ranchettes” while trying to “imitate rural life”); Marcilynn A. Burke, *Klamath Farmers and Cappuccino Cowboys: The Rhetoric of the Endangered Species Act and Why it (Still) Matters*, 14 DUKE ENVTL. L. & POL’Y F. 441, 441 n.1 (2004).

³⁰ *JLUS Program Description*, *supra* note 14, at 1.

³¹ *Id.*; *see also infra* note 38.

³² *Id.*

³³ *Id.*; *see also* STATE STRATEGIES, *supra* note 17, at 2 (discussing the economic importance of military installations).

³⁴ NAT’L GOVERNOR’S ASSOC., CENTER FOR BEST PRACTICES, ISSUE BRIEF: MILITARY INSTALLATIONS PRESSURED BY SPRAWL 1 (2002) *available at* <http://www.nga.org/cda/files/100802SPRAWL.pdf> (last visited May 20, 2005) [hereinafter PRESSURED BY SPRAWL]; *see also JLUS Program Description*, *supra* note 14, at 1 (recognizing the increase in land use conflicts as urban growth continues to rise near military installations).

³⁵ The source of the noise may be anything from “low flying, high performance, military aircraft” on training exercises to ground impact noise from artillery firing ranges. *JLUS Program Description*, *supra* note 14, at 1.

³⁶ The primary risk to civilian populations posed by military installations is the accident potential from military aircrafts during take-offs and landings and exposure to artillery fire during training exercises. *Id.*; PRESSURED BY SPRAWL, *supra* note 34, at 1.

³⁷ For instance, the dust and smoke created by military training activities has the potential to impact civilians. PRESSURED BY SPRAWL, *supra* note 34, at 1.

³⁸ *JLUS Program Description*, *supra* note 14, at 1. For instance, night training exercises are routine at military airports, but “the effectiveness of night vision equipment” is impaired by encroaching city lights. PRESSURED BY SPRAWL, *supra* note 34, at 1. Similarly, military airports are forced to use narrow runways to decrease the potential for accidents even when aircrafts carrying heavy artillery “can not take off or land in narrow flights paths if there is a

The military's common response to encroachment has been the "workaround," an adjustment to training activities that inevitably "lacks realism," alters the tactics employed, and results in training techniques that are "contrary to those used in combat."³⁹ This demonstrates the frequently incompatible land uses of the military and civilian worlds⁴⁰ that have become a source of significant conflict.⁴¹ Complicating matters is that, "[a]ccording to DOD officials, new residents near installations often view military activities as an infringement on their rights, and some groups have organized in efforts to reduce operations such as aircraft and munitions training."⁴² The challenge for all those involved is to work toward a mutually agreeable plan to limit encroachment around military installations and its attendant conflicts.

II. The DOD Response to Encroachment

In the past, specific encroachment problems were addressed on an individual basis by the particular installation impacted.⁴³ While this approach enabled a particularized and locally sensitive response to the encroachment issue, it also precluded a uniform and comprehensive analysis of the methods most suitable to resolving encroachment across the military spectrum.⁴⁴ As the GAO noted, "[e]ffective management of encroachment issues on military training ranges has been hindered by the divided management roles, responsibilities, and accountability that exist among several different levels within the military services and the Office of the Secretary of Defense."⁴⁵

The GAO sought to remedy this deficiency in a 2002 report and recommended that the DOD must prioritize the development of a comprehensive plan to identify and coordinate the objectives, strategies, funding, and reporting of efforts to combat encroachment.⁴⁶ According to the GAO, "[a]lthough the department [had] prepared draft action plans that deal with each encroachment issue separately, the plans [were] not finalized, and information [was] not yet available on specific actions planned, time frames for completing them, clear assignment of responsibilities, and funding needed—the elements of a comprehensive plan."⁴⁷ Fortunately, the GAO report did not fall on deaf ears, neither in the halls of Congress nor across the Potomac in the corridors of the Pentagon.

The GAO's advice was incorporated in the National Defense Authorization Act for Fiscal Year 2003, wherein Congress required that the Secretary of Defense develop a comprehensive plan to mitigate encroachment.⁴⁸ Specifically, section 366(a) of the Act reads as follows:

The Secretary of Defense shall develop a comprehensive plan for using existing authorities available to the Secretary of Defense and the Secretaries of the military departments to address training constraints caused

strong headwind." STATE STRATEGIES, *supra* note 17, at 1.

³⁹ *Holman Testimony*, *supra* note 9, at 2.

⁴⁰ *JLUS Program Description*, *supra* note 14, at 1 (noting that this is particularly true for such land uses as residences, schools, places of assembly . . . childcare centers, nursing homes, hospitals, restaurants, theaters, [and] shopping centers").

⁴¹ *Id.* (commenting that exposure to "irritating noise and accident potential" creates a community-wide need for relief. This creates public pressure on military base commanders to change the manner in which they operate their installations or to move military activities elsewhere).

⁴² *Holman Testimony*, *supra* note 9, at 9 (noting that the military believes that these conflicts are only likely to intensify because sophisticated new weapons systems "are expected to increase training range requirements"); *see, e.g.*, *Citizens Concerned About Jet Noise, Inc. v. Dalton*, 48 F. Supp. 2d 582, 599, n.17 (E.D. Va. 1999) (pointing out that, because the base was present prior to a majority of the development now impacted by the base, "any diminution in value was built into the cost of the home to begin with").

⁴³ DOD LACKS A COMPREHENSIVE PLAN, *supra* note 12, at 5.

⁴⁴ *Id.* at 26 (noting that a comprehensive analysis was impossible because much information was simply unknown).

⁴⁵ *Id.* (explaining that various officials within several different military departments "are responsible for different aspects of overseeing training ranges and addressing encroachment issues," thereby resulting in countless responses). For example, the military department Secretaries are responsible for "training personnel and for maintaining their respective training ranges," the Under Secretary of Defense for Personnel and Readiness ensures military readiness and oversees training, and the Deputy Under Secretary of Defense for Installation and Environment creates programs for the "DOD's environmental, safety, and occupational health programs." *Id.* at 8-9.

⁴⁶ *Id.* at 30-31 (recognizing the severity of the potential for continual loss of military training range capability and stressing the importance of attacking the problem from all angles to most effectively curb the rate of encroachment).

⁴⁷ *Id.* at 4.

⁴⁸ *See* National Defense Authorization Act for Fiscal Year 2003, Pub. L. No. 107-314, § 366, 116 Stat. 2458, 2522 (2002) (addressing the limitations on military training and availability of resources for the Armed Forces).

by limitations on the use of military lands, marine areas, and airspace that are available in the United States and overseas for training of the Armed Forces.⁴⁹

In February 2004, the Under Secretary of Defense for Personnel and Readiness submitted a report outlining the implementation of the DOD's training range comprehensive plan.⁵⁰ In addition to complying with section 366, the stated objective of the DOD's report was to "explain its plans for addressing training constraints caused by encroachment."⁵¹ The report includes an assessment of current and future military training and range requirements, an inventory of the training ranges, an identification of critical encroachment issues facing these ranges, and a list of proposals to abate encroachment.⁵² Particularly noteworthy is that not only has the DOD started to work with states and other "organizations to promote compatible land usage," it has also taken the initiative to create programs that would serve "to protect facilities from urbanization."⁵³

Central to the DOD's encroachment response has been the Readiness and Range Preservation Initiative and the Sustainable Ranges Initiative.⁵⁴ "The sustainable ranges outreach effort provides stakeholders with an improved understanding of readiness needs, address[es] concerns of state and local governments and surrounding communities, work[s] with nongovernmental organizations on areas of common interest, and . . . partner[s] with groups outside the Department to reach common goals."⁵⁵ Moreover, DOD Directive 3200.15, promulgated by the Deputy Secretary of Defense, identified "coordination and outreach programs" as a crucial element of the DOD's policy toward encroachment.⁵⁶

An example of the military's active role in coordinating with civilian governments and communities is the Marine Corps' Community Plans and Liaison Offices ("CPLOs").⁵⁷ The CPLOs, with the help of the Marine Corps Installations and Logistics Department, work to develop "partnerships with local communit[ies] and government[al] agencies to prevent incompatible land use near [military] installations and training ranges."⁵⁸ Similarly, the DOD initiated the Air Installation Compatible Use Zone ("AICUZ"), the Installation Compatible Use Zone ("ICUZ"), the Environmental Noise Management Program ("ENMP"), and the Range Air Installation Compatible Use Zone ("RAICUZ") programs to inform local governments about the negative effects of developing nearby military installations.⁵⁹ These programs "encourage

⁴⁹ *Id.* § 366(a). The Act further requires the DOD to submit a report to Congress describing the DOD's assessment and evaluation of current and future training ranges. *Id.* § 366(a)(2)-(4).

⁵⁰ UNDER SEC'Y OF DEF. (PERSONNEL AND READINESS), U.S. DEP'T OF DEF., REPORT TO THE CONGRESS: IMPLEMENTATION OF THE DEPARTMENT OF DEFENSE TRAINING RANGE COMPREHENSIVE PLAN: ENSURING TRAINING RANGES SUPPORT TRAINING REQUIREMENTS (2004), available at http://www.dod.gov/prhome/docs/rpt_congress.pdf (last visited May 20, 2005) [hereinafter DOD COMPREHENSIVE PLAN].

⁵¹ *Id.* at 1.

⁵² *See id.* at 2-6.

⁵³ *Id.* at 1.

⁵⁴ *Id.* at 7-8. The Readiness and Range Preservation Initiative promulgated a number of measures to enhance troop readiness while, according to the military, "maintain[ing] [the military's] commitment to environmental stewardship"; five of the measures have been enacted into law. DOD COMPREHENSIVE PLAN, *supra* note 50 at 7-8. Although the measures allow effective cooperation between the military and third parties to transfer land for conservation purposes, they also provide the military, to ensure troop readiness, with temporary exemptions from the Migratory Bird Treaty Act and broad exemptions from the Marine Mammal Protection Act, and the Endangered Species Act. Julie G. Yap, Note, *Just Keep Swimming: Guiding Environmental Stewardship Out of the Riptide of National Security*, 73 FORDHAM L. REV. 1289, 1315-17 (2004); 16 U.S.C. § 1361 (2000); 16 U.S.C. § 1531 (2000 & Supp. II 2002); 16 U.S.C. § 710 (2000).

⁵⁵ DOD COMPREHENSIVE PLAN, *supra* note 50, at 8. The Sustainable Ranges Initiative also provides "a suite of internal changes to foster [training] range sustainment." *Id.*

⁵⁶ DEP'T OF DEF., DIRECTIVE 3200.15: SUSTAINMENT OF RANGES AND OPERATING AREAS (OPAREAS) 3 (2003), at http://www.dtic.mil/whs/directives/corres/pdf/d320015_011003/d320015p.pdf (last visited May 20, 2005). It is the DOD's policy to "[i]nstitute multi-tiered (e.g. national, regional, and local) coordination and outreach programs that promote sustainment of ranges and [operating areas] and resolution of encroachment issues that promote understanding of the readiness, safety, environmental, and economic considerations surrounding the use and management of ranges and [operating areas]." *Id.* The directive also recognizes that the Under Secretary of Defense for Personnel and Readiness is responsible for monitoring range encroachment and its effects on readiness. *Id.* at 4.

⁵⁷ *See* DOD COMPREHENSIVE PLAN, *supra* note 50, at 53 (explaining the CPLO's role in relation to the local community and government agencies).

⁵⁸ *Id.*

⁵⁹ OFFICE OF ECON. ADJUSTMENT, U.S. DEP'T OF DEF., JOINT LAND USE STUDY: PROGRAM GUIDANCE MANUAL 1 (2002) (indicating that the programs were a response to the DOD's recognition of the "problem of urban encroachment" surrounding military installations), available at [http://www.oea.gov/oeaweb.nsf/FD3D3C042BA4EC1285256E83004497AD/\\$File/JLUS_program_manual.pdf](http://www.oea.gov/oeaweb.nsf/FD3D3C042BA4EC1285256E83004497AD/$File/JLUS_program_manual.pdf) (last visited May 20, 2005) [hereinafter PROGRAM GUIDANCE MANUAL].

communities to adopt land use controls that will ensure compatible development in [adjacent] areas adversely affected by military operations.”⁶⁰

Furthermore, Congress authorizes the DOD to provide financial support to assist state and local governments in evaluating land use policies to adequately respond to encroachment issues.⁶¹ The primary vehicle for this assistance is the Joint Land Use Study (“JLUS”) program, initiated by the DOD in 1985.⁶² The objective of the JLUS program is to promote cooperation in land use planning between the military and civilian communities as a way to reduce adverse impacts on both military and civilian activities.⁶³ To attract communities to the program, the DOD Office of Economic Adjustment (“OEA”) “offers matching grants” to fund the JLUS, while communities act as the sponsor for the study.⁶⁴ Military departments for the program annually nominate military bases with existing encroachment or bases that have the possibility of encroachment in the near future.⁶⁵ Study participants generally include “representatives from the military . . . all counties directly abutting the military” installation, and affected municipalities within those counties.⁶⁶ The JLUS focuses particularly on “noise and aircraft safety” concerns, but the study could also include the economic impacts of the installation.⁶⁷ The program also emphasizes “public participation and awareness” through comment meetings and news releases to “instill public confidence” in the study.⁶⁸ While the study’s recommendations are not binding on the communities and are “used to guide local jurisdictions in the development and implementation of land development controls,” for the study to be successful, the recommendations should be implemented “and incorporated by local ordinance into the community comprehensive plan, zoning ordinance, subdivision regulations, and building codes.”⁶⁹

Congress has also authorized the DOD to enter into agreements with both private and public civilian entities to limit the construction of incompatible land uses in close proximity to military installations.⁷⁰ Such agreements are becoming increasingly popular as a tool for warding off incompatible uses because they allow parties to share the costs of acquiring real property to create “compatible land use buffers.”⁷¹ For instance, the military encourages Army Compatible Use Buffers

⁶⁰ *Id.* (noting that some communities fail to implement the military’s advice). Examples of land use controls include limiting development in land areas below military take off and landing flight paths to reduce aircraft accidents and noise levels in surrounding communities; and prohibiting inherently incompatible land uses surrounding military installations such as uses that “release into the air any substance, such as steam, dust, or smoke, which would impair visibility or otherwise interfere with the operation of aircraft . . . [or] uses that produce electrical emissions which would interfere with aircraft communication systems or navigation equipment. DYESS AIR FORCE BASE, AIR INSTALLATION COMPATIBLE USE ZONE, 42-44 (2000), available at <http://www.cevp.com/docs/AICUZ/dyess/2000-11-02568.pdf> (last visited May 20, 2005).

⁶¹ 10 U.S.C. § 2391(b) (2000 & Supp. II). Section 2391(b) provides, in pertinent part, that

[t]he Secretary of Defense may make grants, conclude cooperative agreements, and supplement funds available under Federal programs administered by agencies other than the Department of Defense in order to assist State and local governments in planning community adjustments and economic diversification required . . . by the encroachment of a civilian community on a military installation.

Id.

⁶² PROGRAM GUIDANCE MANUAL, *supra* note 59, at 1.

⁶³ *Id.* at 2 (explaining that the JLUS program advocates open forum discussions where both communities and military installations can express their viewpoints).

⁶⁴ *Id.* (describing the program as a “win-win situation”).

⁶⁵ *Id.* Strong base support and “good community/base relations track record” are also important selection factors. *Id.*

⁶⁶ PROGRAM GUIDANCE MANUAL, *supra* note 59, at 3. Other potential study participants include affected communities located outside the perimeter of the encroaching counties, and the Federal Aviation Authority or state aviation agency if military base operations negatively affect airports in the region. *Id.*

⁶⁷ *Id.* at 6 (explaining that the purpose of including economic considerations is to convince “local officials that the potential cost of losing the base due to incompatible land development is too high”).

⁶⁸ *Id.*

⁶⁹ *Id.* at 2, 7.

⁷⁰ 10 U.S.C. § 2684a (Supp. II 2002). The statute provides that

The Secretary of Defense or the Secretary of a military department may enter into an agreement with an eligible entity . . . to address the use or development of real property in the vicinity of a military installation for purposes of (1) limiting any development or use of the property that would be incompatible with the mission of the installation; or (2) preserving habitat on the property.

Id. § 2684a(a). According to § 2684a, “eligible entities” include States, municipalities, and private conservation or land preservation organizations. *Id.* § 2684a(b).

⁷¹ DOD COMPREHENSIVE PLAN, *supra* note 50, at 46; 10 U.S.C. § 2684a(d).

“ACUB”), which are “formal agreements between [the] Army and eligible entities” to restrict encroachment by acquiring “development rights, cooperative agreements, conservation easements, and other means in accordance with applicable laws.”⁷² An exemplar of such agreements is the Private Lands Initiative between the Department of the Army, Fort Bragg, and The Nature Conservancy.⁷³ Located in North Carolina, Fort Bragg is the largest Army base in the country, covering approximately 161,000 acres.⁷⁴ Yet, the military utility of the acreage was threatened by encroaching urban growth⁷⁵ and the presence of the red-cockaded woodpecker (“RCW”), a bird protected by the Endangered Species Act.⁷⁶ Under the agreement, the Army and The Nature Conservancy have committed \$9.4 million and \$7 million respectively toward purchasing conservation easements on the undeveloped land surrounding Fort Bragg.⁷⁷ The purchase provides a buffer zone between the fort and civilian developments, and preserves the woodpecker habitat since live-fire training is precluded on this land.⁷⁸

By protecting the installation from encroaching development while also providing a habitat for an endangered species, the Private Lands Initiative gives life to the ideal of joint land use.⁷⁹ The experiment’s success has inspired similar programs on lands surrounding other military installations.⁸⁰ Thus, recognizing the likelihood that the encroachment problem will intensify, the DOD’s efforts to curtail encroachment are increasingly focused on cooperating and partnering with communities and organizations that are impacted by military installations.⁸¹

III. The State Response to Encroachment

A number of states and local governments have taken proactive steps to mitigate the effects of sprawling urban areas on military installations located within their respective jurisdictions. While approaches have varied, the ultimate goal of preventing incompatible land uses adjacent to military installations remains constant.⁸² Some strategies employed by state governments in the hope of providing a cross-section of responses to encroachment include enacting legislation prohibiting incompatible land use near military installations; enacting legislation requiring local communities to coordinate with nearby installations in their planning and zoning activities; and creating military advisory boards and support offices.

⁷² Dep’t of the Army, *Memorandum: Army Range and Training Land Acquisitions and Army Compatible Use Buffers*, May 19, 2003, at 1-2, at <http://www.hqda.army.mil/acsimweb/doc/IMI2004/ACUBPolicyMemo19May03.pdf> (last visited Apr. 14, 2005).

⁷³ U.S. ARMY ENVTL. CTR., *Private Land Initiative: Cooperative Agreement Between U.S. Department of the Army, Fort Bragg, U.S. Army Environmental Center and The Nature Conservancy*, at 1-2 (1995) available at <http://www.aec.army.mil/usaec/natural/natural03a05.html> (last visited May 20, 2005) [hereinafter *Private Land Initiative*]. The purpose of the cooperative agreement is to maintain the military training objective at Fort Bragg, to contribute to the restoration of the endangered red-cockaded woodpecker on abutting private land, to preserve parts of the North Carolina sand hills, and to support the “bioregional management of the North Carolina Sand hills ecosystem.” *Id.*

⁷⁴ STATE STRATEGIES, *supra* note 17, at 13; *Fort Bragg’s Woodpeckers: Soldiers, Wildlife Find Common Ground in North Carolina* (NPR radio broadcast, May 9, 2002) (explaining that the 161,000 acres consist mostly of “long-leaf pine forests and fields”) available at <http://www.npr.org/programs/morning/features/2002/may/woodpecker/> (last visited May 20, 2005) [hereinafter *Fort Bragg’s Woodpeckers*].

⁷⁵ *Fort Bragg’s Woodpeckers*, *supra* note 74. Encroachment around Fort Bragg apparently became so bad that, according to one report, a paratrooper landed in a nearby resident’s swimming pool during a training exercise. *Id.*

⁷⁶ 50 C.F.R. 23.23 (2005). Fort Bragg’s long-leaf pine forests are the RCW’s habitat. *Private Land Initiative*, *supra* note 73 at 1. The Army was concerned that live-fire exercises would have to cease to protect the bird. *Fort Bragg’s Woodpeckers*, *supra* note 74.

⁷⁷ STATE STRATEGIES, *supra* note 17, at 13.

⁷⁸ *Fort Bragg’s Woodpeckers*, *supra* note 74. However, the Army can continue to conduct training practices in the buffer zone, “minus the live fire.” *Id.*

⁷⁹ *See id.* (noting the innovative solution to the “woodpecker’s plight”).

⁸⁰ For instance, the Army and The Nature Conservancy are again working on an agreement to create a buffer zone around a military installation, this time at the Marine Corps’ Camp Lejeune in North Carolina. STATE STRATEGIES, *supra* note 17, at 13. Similarly, the DOD partnered with the State of Florida, The Nature Conservancy, and others to create the Northwest Florida Greenway, a 100-mile corridor of open space intended to both protect against encroachment and to preserve the environment. Press Release, Department of Defense, DOD, Florida Partner to Protect Military Ranges, Environment (Nov. 12, 2003), at <http://www.defenselink.mil/releases/2003/nr20031112-0635.html> (last visited May 20, 2005).

⁸¹ *See* DOD COMPREHENSIVE PLAN, *supra* note 50, at 6 (observing that future encroachment issues will significantly worsen from current conditions without competent management and extensive cooperation with “federal agencies, [s]tates, Native American tribes, local governments, host nations abroad, and non-governmental organizations”).

⁸² *See* STATE STRATEGIES, *supra* note 17 at 2.

A. Legislation Prohibiting Incompatible Land Uses

The most direct state action to combat encroachment stems from legislation that specifically targets land use in close proximity to military installations. For example, in 2000, Arizona enacted a law requiring “a political subdivision that has territory in the vicinity of a military airport or ancillary military facility” to “adopt comprehensive . . . plans . . . to assure development [that is] compatible” with the installation’s mission.⁸³ According to this statute:

Each political subdivision . . . shall adopt and enforce zoning regulations for property in the high noise or accident potential zone to assure development compatible with the high noise and accident potential generated by military airport and ancillary military facility operations that have or may have an adverse effect on public health and safety.⁸⁴

To further deter incompatible uses,⁸⁵ Arizona mandates that residential developers notify purchasers if property is located near a military airport.⁸⁶ In addition, Arizona’s Military Airport Land Exchange program facilitates the exchange of federal land in Arizona for private land located in a military airport’s surrounding areas.⁸⁷ Through this program, Arizona hopes to protect military airports from encroachment by encouraging the exchange of undeveloped land and land zoned for incompatible uses.⁸⁸ Washington has followed suit and prevents incompatible “development in the vicinity of a military installation.”⁸⁹

Likewise, Oklahoma authorizes municipalities containing “an active-duty United States military installation” to enact zoning ordinances prohibiting incompatible land uses within a five mile radius of the installation’s limits.⁹⁰ The state legislature identified incompatible uses as uses that (1) would be hazardous to aircraft operation, including aerial release of non-agricultural substances that “would impair visibility or . . . the operation of aircraft”; (2) produce light or electrical emissions that would impair pilot or aircraft operation; and (3) provide for the construction of any structure “within ten (10) feet of an aircraft approach [or] departure . . . surface.”⁹¹ However, under the statute, ordinances cannot proscribe single-family residential development on tracts greater than one acre within the target area.⁹² Significantly, any ordinance enacted must “be consistent with the most current recommendations” of the AICUZ,⁹³ yet another example of the cooperative relationship between communities and military installations.

⁸³ ARIZ. REV. STAT. § 28-8481(A) (2004).

⁸⁴ *Id.*

⁸⁵ See STATE STRATEGIES, *supra* note 17, at 3 (describing Arizona’s attempts to ensure that residential land use is compatible with the scope of military use).

⁸⁶ *Id.*; see also ARIZ. REV. STAT. § 28-8484 (2004) (requiring public real estate reports to indicate whether property is located near a military airport, and requiring maps created by the military to be publicly available that indicate whether “property is located in or outside of a territory in the vicinity of a military airport or in or outside a high noise or accident potential zone” to be publicly available).

⁸⁷ ARIZ. REV. STAT. § 37-1221 (2004). Arizona’s military airport land exchange section, established within the state’s land department, evaluates “the suitability of [private] property for exchange with federal land . . . coordinate[s] with federal agencies to identify federal lands that are available . . . for exchange, [and] prepare[s] an exchange proposal for the landowner’s review.” *Id.* § 37-1223 (2004).

⁸⁸ *Id.* § 37-1222; see also § 37-1201 (declaring that the legislature’s policy is to promote the preservation of military airports in [Arizona] by facilitating the conservation of open space around military airports . . . thereby protect[ing] and enhanc[ing] the irreplaceable economic benefit that military airports . . . contribute to the . . . state”).

⁸⁹ WASH. REV. CODE § 36.70A.530 (2004) (providing that “[a] comprehensive plan, [an] amendment to a plan, a development regulation or amendment to a development regulation, should not allow development in the vicinity of a military installation that is incompatible with the installation’s ability to carry out its mission requirements”).

⁹⁰ OKLA. STAT. ANN. tit. 11, § 43-101.1(A) (West 2004).

⁹¹ *Id.* § 43-101.1(B). Other incompatible uses include those that attract animals, expose people to loud noise, and “detract from the aesthetic appearance . . . of any entrance to the installation. *Id.*

⁹² *Id.* § 43-101.1(E). Nevertheless, residential construction on these tracts must comply with the state’s “Guidelines for the Sound Insulation of Residences Exposed to Aircraft Operations, Wyle Research Report WR 89-7.” *Id.*

⁹³ *Id.* § 43-101.1(D).

B. Regulation of Zoning and Planning Activities Near Military Installations

In a similar collaborative spirit, a number of states enacted legislation compelling local governments to confer with military installations within their respective jurisdictions when amending zoning ordinances. For instance, Georgia enacted a statute imposing special obligations on local governments considering a zoning proposal “involving land . . . adjacent to or within 3,000 feet of [a] military installation or within the 3,000-foot Clear Zone and Accident Prevention Zones” of the AICUZ.⁹⁴ Counties and municipalities must investigate the effects of the proposal on the use of land adjacent to the military installation and its compatibility with the installation’s operations.⁹⁵ The statute also provides that the planning department must request “a written recommendation and supporting facts relating to the use of the land being considered in the proposed zoning decision” from the installation at “least thirty days prior to the hearing.”⁹⁶

Washington similarly mandates that counties and cities entertaining amendments to the comprehensive plan or development regulations first consult with the commander of the military installation and allow sixty days for a response.⁹⁷ Virginia requires the local planning commission to notify the commander of an installation in the municipality’s jurisdiction ten days prior to a hearing on a “proposed comprehensive plan[,] . . . a proposed change in zoning map classification, or . . . an application for” a zoning variance when they involve land within 3000 feet of the installation’s boundary.⁹⁸ The commander may, during those ten days, “submit comments or recommendations” regarding the proposed action.⁹⁹

In Florida, the legislature has explicitly stated that it “finds it desirable for the local governments in the state to cooperate with military installations to encourage compatible land use, help prevent incompatible encroachment, and facilitate the continued presence of major military installations in [the] state.”¹⁰⁰ In pursuit of this objective, the legislature requires that counties with a military installation notify the installation’s officer in command of proposed changes or amendments “to comprehensive plans [or] . . . development regulations” potentially affecting “the intensity, density, or use of the land adjacent to or in close proximity to the military installation.”¹⁰¹ Naturally, the installation will be given an opportunity to comment on what, if any, impact the proposal will have on its mission, and the county is obliged to take its comments into consideration.¹⁰² Most significant about Florida’s statute is that, “to facilitate the exchange of information . . . , a representative of a military installation acting on behalf of all military installations within that jurisdiction shall be included as an ex officio, nonvoting member of the county’s or affected local government’s land planning or zoning board.”¹⁰³ This provision adds a wrinkle not yet seen in other legislative responses to encroachment.

Much like the aforementioned states, Texas requires that “defense communities”¹⁰⁴ solicit comments from the military installation if it is expected that a “proposed ordinance, rule, or plan” will impact the installation or its training activities.¹⁰⁵ Resembling Florida’s approach, Texas requires local governments to consider the installation’s comments prior to making a final determination on the proposal.¹⁰⁶ Texas also established a regime to assist local governments in responding to encroachment.¹⁰⁷ Specifically, local governments in Texas can apply to receive financial assistance from the military to develop goals and proposals for the future to address, among other things, “controlling [the] negative effects of future growth

⁹⁴ GA. CODE ANN. § 36-66-6(a) (2004).

⁹⁵ See *id.* § 36-66-6(b) (listing the issues that the planning department must investigate, including whether the proposed land use would adversely affect the installation’s mission or would create safety concerns).

⁹⁶ *Id.* at § 36-66-6(a).

⁹⁷ WASH. REV. CODE § 36.70A.530(5)(a) (2004).

⁹⁸ VA. CODE ANN. § 15.2-2204(D) (Michie 2004).

⁹⁹ *Id.*

¹⁰⁰ FLA. STAT. ANN. ch. 163.3175(1) (West 2004).

¹⁰¹ *Id.* § 163.3175(2).

¹⁰² *Id.* § 163.3175(4); see also § 163.3175(3) (listing examples of possible comments including whether the proposal is compatible with a JLUS, whether the “installation will be adversely affected by the” proposal, and whether the proposal is compatible with AICUZ).

¹⁰³ *Id.* § 163.3175(5).

¹⁰⁴ Texas defines “defense community” as “a political subdivision, including a municipality, county, or special district, that is adjacent to, is near, or encompasses any part of a defense base.” TEX. LOC. GOV’T CODE ANN. § 397.001 (2004).

¹⁰⁵ *Id.* § 397.005.

¹⁰⁶ *Id.*; FLA. STAT. ANN. § 163.3175(4) (West 2004).

¹⁰⁷ TEX. LOC. GOV’T CODE ANN. § 397.003 (2004).

of the defense community on the defense base and minimizing encroachment on military exercises or training activities connected to the base.”¹⁰⁸

C. Cooperative Relationships between States and Military Installations

In addition to legislative responses, a number of states have fostered cooperative relationships with military installations through the creation of military advisory boards and support offices. For instance, in 2004, Arizona’s Governor “created a permanent Military Affairs Commission” comprised of representatives from various branches of the military and local government officials.¹⁰⁹ The Commission’s objective is to monitor “developments regarding Arizona’s military installations and to make recommendations on executive, legislative and federal actions necessary to sustain and grow those installations.”¹¹⁰ On a more informal level, the Arizona Military Regional Compatibility Project organizes a variety of interested parties to solve land use compatibility issues to safeguard the state’s military airports.¹¹¹ Similarly, the Florida Defense Alliance, created in 1998, serves “as a non-profit partnership between” state and local government officials, “[l]egislators, [b]ase [c]ommanders, [c]ommunity [l]eaders, and [b]usiness [e]xecutives” with the goal of preserving training ranges to ensure military readiness.¹¹²

With the goal of improving the “mission value” of Georgia’s military installations, the Georgia Military Affairs Coordinating Committee provides services intended to reduce the strain of encroachment on those installations.¹¹³ In like manner, the North Carolina Advisory Commission on Military Affairs (“ACMA”) was created to “[d]evelop a strategic plan to provide initiatives to support the long-term viability” of military installations in North Carolina.¹¹⁴ The ACMA has also partnered with the National Governors Association in sponsoring a “multistakeholder conference on encroachment.”¹¹⁵ Finally, in 2004, California created the Office of Military and Aerospace Support (OMAS) to facilitate communication between military installations in California and state and local government offices.¹¹⁶ In addition to retention and conversion duties in connection with the upcoming round of base realignments and closures¹¹⁷, the OMAS is expected to assist in resolving disputes between the DOD and other state entities so that mission use of military bases is maximized.¹¹⁸

¹⁰⁸ *Id.* § 397.003(a)(1). Proposals can also address “which, if any, property and services in a region can be shared by the defense base and the defense community.” *Id.* § 397.003(a)(2).

¹⁰⁹ Press Release, State of Arizona, Governor Announces Permanent Military Affairs Commission (Mar. 2, 2004), at http://www.governor.state.az.us/press/0403/04_03_02.pdf (last visited May 20, 2005).

¹¹⁰ *Id.*

¹¹¹ STATE STRATEGIES, *supra* note 17, at 14 (noting that the group’s “members include local jurisdictions, military installation representatives, [and] landowners”).

¹¹² Enterprise Florida, Inc., *Florida Defense Alliance: Draft Strategic Plan*, Apr. 2004 at 2 (illustrating the extensive membership across the Florida state government), available at <http://www.floridadefense.org/documents/FLDefenseAllianceStrategicPlan.pdf> (last visited May 20, 2005).

¹¹³ Georgia Military Affairs Coordinating Committee, *Our Mission, Services We Provide*, at http://gmacc.georgia.gov/00/article/0,2086,1331549_0_117907_48,00.html (last visited Mar. 27, 2005). Services provided to improve mission value include “working to [r]educe [e]ncroachment[,] [i]mproving [p]oor [b]usiness [p]ractice[, and] [h]elping [t]o [a]pply [r]esources [t]o [i]mprove [i]nadequate [i]nfrastructure.” *Id.*

¹¹⁴ N.C. GEN. STAT. § 127C-4(2) (2004); see also STATE STRATEGIES, *supra* note 17, at 15 (noting the purpose of the ACMA as well as the diverse composition of its representatives).

¹¹⁵ STATE STRATEGIES, *supra* note 17, at 15.

¹¹⁶ See CAL. GOV’T CODE § 13998.5 (West 2004).

¹¹⁷ Base Realignment and Closure (BRAC) is the “congressionally authorized process [that the] DOD . . . uses to reorganize its military base structure to more efficiently and effectively support [United States] forces [and to] increase operational readiness.” Department of Defense, *BRAC 2005, Frequently Asked Questions*, available at <http://www.defenselink.mil/brac/faqs001.html> (last visited May, 20, 2005); 10 U.S.C. § 2687 (2000). Congress further established a commission to objectively review the list of military bases that the DOD recommends should be closed or realigned. Defense Base Closure and Realignment Commission, *About the Commission*, available at <http://www.brac.gov/about.asp> (last visited May 20, 2005); see also Dep’t of Def., Undersecretary of Def., *Memorandum For Infrastructure Executive Council Members, Infrastructure Steering Group Members, Joint Cross-Service Group Chairman, Subject: 2005 Base Closure and Realignment Selection Criteria*, Jan. 4, 2005 (listing the eight selection criteria the DOD must consider when evaluating which military bases to close or realign), available at http://www.brac.gov/docs/criteria_final_jan4_05.pdf (last visited, May 20, 2005).

¹¹⁸ CAL. GOV’T CODE § 13998.5 (a), (f).

IV. Why Do We Care About Encroachment?

The manifold efforts on the part of both the military and the states to counteract the deleterious effects of encroachment on the mission of military installations beg the question: why is encroachment such an important issue? For the military, two main reasons can be offered. First, and by far most pressing, is the concern for military readiness and its direct correlation to national security. A well-trained and ready force is the military's contribution to national security and encroachment impedes the military's fulfillment of its duties.¹¹⁹ While "[r]eadiness reporting can and should be improved to address the extent of training degradation due to encroachment,"¹²⁰ military officials believe encroachment has reduced military readiness.¹²¹ Military readiness is greatly influential to policymakers given the current deployment of forces in combat, and the prominence of terrorism on the domestic and foreign policy agendas.

Second, the round of base realignments and closures¹²² and the proposed movement of forces from Europe and Asia, highlight the significance of maintaining compatible land uses adjacent to military installations. Should encroachment continue to restrict training activities, military installations could be subject to closure.¹²³ For instance, in evaluating which installations to close or realign,¹²⁴ the DOD primarily considers "the availability and condition of land, facilities and associated airspace (including [suitable] training areas . . .) at both existing and potential receiving locations."¹²⁵ Moreover, on August 16, 2004, President Bush announced a plan to realign approximately seventy thousand military personnel, not to mention their families and other civilian employees, from overseas installations, particularly Germany and South Korea, to installations in the United States.¹²⁶ The influx of significant numbers of troops, families, and civilian employees is only likely to exacerbate the encroachment problem and increase the urgency for workable solutions.¹²⁷

As for states, the explanation for the attention being paid to encroachment essentially boils down to one thing: money. "Military installations are often critical to state economies, accounting for thousands of jobs and generating billions of dollars in economic activity and tax revenue."¹²⁸ Installations necessarily employ state residents to fill many roles, paying above-

¹¹⁹ See DOD COMPREHENSIVE PLAN, *supra* note 50, at 6 (explaining that for the DOD "[t]o provide ready military forces to meet our country's national security needs, our personnel must train as they would fight"); see *Constraints and Challenges Facing Military Test and Training Ranges: Hearing Before the Military Readiness Subcomm. of the House Armed Servs. Comm.*, 107th Cong. (2001) (statement of Mr. Joseph J. Angello, Jr., Acting Deputy Under Sec'y of Def. for Readiness) (stating "that developing sustainable ranges is necessary to our continued ability to test and train our forces, and to sustain the military readiness necessary to protect U.S. interests and defend our nation") available at <http://www.house.gov/hasc/openingstatementsandpressreleases/107thcongress/01-05-22angelo.html> (last visited May 20, 2005); see *Hearings*, *supra* note 19, at 76 (statement of Lieutenant General Gary L. Ellis) (stating that "[t]he Army requires continuous, rigorous training to perform its . . . missions [and] the cumulative effects of encroachment are restricting [the army's] ability to train"). The military believes that "without live combat training, realistic combat training, not a patchwork workaround, but the things [the troops] have to execute in the operational world . . . [it] can't send [the troops] forward in good conscience to take up this burden they so generously volunteered to perform on [the military's] behalf." *Id.* at 32 (statement of Admiral William J. Fallon).

¹²⁰ *Holman Testimony*, *supra* note 9, at 12.

¹²¹ See STATE STRATEGIES, *supra* note 17, at 1 (noting that military "training [activities] can be postponed, restricted, or eliminated" due to encroaching communities); see also DOD LACKS A COMPREHENSIVE PLAN, *supra* note 12, at 9-13 (describing examples of how encroachment affects training capabilities at specific military installations).

¹²² On May 13, 2005, the Defense Base Closure and Realignment Commission received the DOD's list of bases that should be closed or realigned. Defense Base Closure and Realignment Commission, *Commission Process*, available at <http://www.brac.gov/process.asp> (last visited May 20, 2005). The Commission has until September 8, 2005 to conduct its evaluation and submit its report to the President, and the President has until September 23, 2005 "to forward the report to Congress or return it to the Commission for further evaluation." *Id.* (explaining that Congress must approve the Commission's report and enact a joint resolution before the bases can be closed or realigned).

¹²³ *Id.*

¹²⁴ See 10 U.S.C. § 2687 (2000) (describing additional measures to be complied with when base closure or realignment would affect at least three hundred civilian employees).

¹²⁵ Notice, Selection Criteria for Closing and Realigning Military Installations Inside the United States, 69 Fed. Reg. 6948 (Feb. 12, 2004).

¹²⁶ *Bush Announces Major Troop Realignment: Two U.S. Army Divisions to Leave Germany*, CNN.COM, Aug. 17, 2004, at <http://us.cnn.com/2004/ALLPOLITICS/08/16/bush.troops.home/> (last visited Apr. 18, 2005).

¹²⁷ For example, it is estimated that Texas's Fort Bliss will triple in size as a result of the overseas troop realignment. *Bliss Could Triple in Size*, ARMY TIMES, Feb. 14, 2005, available at <http://www.armytimes.com/story.php?f=1-292925-659130.php> (last visited Apr. 17, 2005). Although Fort Bliss has the capacity to accommodate twenty thousand troops, the troop realignment will have an impact on military land use as approximately one hundred thousand dependants will be returning to the United States with the realigned troops. *Id.*; see Eric Schmitt, *States and Communities Battling Another Round of Base Closings*, N.Y. TIMES, Mar. 20, 2005 at 1.

¹²⁸ STATE STRATEGIES, *supra* note 17, at 2. For instance, the twenty-one military installations in Florida generate \$44 billion a year for the state, ranked third behind tourism and agriculture. Schmitt, *supra* note 126.

average salaries.¹²⁹ These employees, whether military or civilian, are likely to spend their money at area businesses, thus generating considerable revenue for local economies.¹³⁰ In addition, the military consistently contracts with the local private sector for goods and services.¹³¹ The state, of course, also maintains an interest in protecting its citizens from a diminution in property value and quality of life brought on by military training exercises. To be sure, states are interested in ensuring the readiness of the troops for purposes of national security, but the primacy of economic and quality of life interests is readily apparent. Creating a hospitable environment in which military installations can thrive is crucial to sustaining the installation and abating the risk of a future closure.

Conclusion

The encroachment of urban and suburban communities on military installations is no longer a marginal land use issue. The devotion of time and resources by the various stakeholders toward resolution of the problem alone demonstrates this fact. Although the interests of the stakeholders are diverse, ranging from the promotion of national security to the protection of the environment and preservation of a state's economic base, the issue of encroachment is recognized as a significant threat necessitating attention. Similarly, while the proposed solutions to the harmful effects of encroachment vary from state to state and installation to installation, the modus operandi of encouraging collaboration between the stakeholders is shared in common. With no panacea for encroachment seemingly in sight, and with the prospect of a natural worsening of the problem commensurate with sprawl, the solution will likely continue to emphasize effective management of land uses around military installations through broad cooperation.

¹²⁹ STATE STRATEGIES, *supra* note 17, at 2.

¹³⁰ *Id.*

¹³¹ *Id.* (goods and service can include "construction, manufacturing, equipment, materials, transportation, communications, and health and food services").