



New Residential Development

5.1 GENERAL COMPATIBILITY APPROACHES

The Policy Committee met on a regular basis throughout the JLUS planning process to evaluate a full range of available tools to reduce encroachment. The JLUS team also conducted a series of public involvement events and met with community stakeholders to gather feedback on possible compatibility strategies.

Representatives of local jurisdictions, the Air Force, and the public voiced a wide variety of issues, concerns, and ideas during the study. The resulting set of tools seeks a balance among these diverse interests by stressing:

- Protection of the military mission;
- The ability to sustain growth and protect individual property rights;
- The ability to administer and properly fund recommended implementation steps;
- The ability to gain community support; and
- Protection of the environment.

This section gives an overview of approaches for enhancing land use compatibility around HARB and reducing the risk of future encroachment.

Communication and Coordination

These tools establish ongoing and structured mechanisms for information exchange among residents, local governments, and the Air Force. Communication options raise overall awareness of Air Force activities and their associated impacts, clearly identify

land use restrictions and compatible development options available to property owners, and help to monitor the implementation of study recommendations.

Conservation Acquisitions

Conservation refers to a series of tools designed to eliminate land use incompatibilities through voluntary transactions in the real estate market and local development process. These strategies are particularly effective because they advance the complementary goals of shifting future growth away from military installations, while protecting the environment, and conserving agriculture, open spaces and rural character.

The Department of Defense authorizes the Air Force and other branches of the military to join in partnerships with local governments and non-profit organizations to secure land and water rights that if developed could affect training and readiness activities. The Air Force typically acquires a recordable interest in the property in the form of a restrictive use or conservation easement that limits development on the property to specific compatible uses and/or densities.

As part of this strategy, regional stakeholders including county and city governments, the Air Force, the South Florida Water Management District, the State of Florida, and non-profit conservation entities, such as the Nature Conservancy, would form partnerships to secure conservation easements or to purchase development rights from willing sellers of land in proximity to HARB.

Transfer of Development Rights

A transfer of development rights program (TDR) separates the right to build from a particular parcel of land with physical constraints (sending area) and makes those rights available for purchase in a voluntary market. Developers who purchase the rights can then increase residential density beyond base zoning in areas more suitable for intense uses (receiving area).

In the context of lands near military installations, the local government can designate property within specified air safety and noise zones as sending areas, allowing property owners to receive some level of compensation for retaining land in an undeveloped state compatible with nearby operations.

One of the most complicated aspects of implementing a TDR program is to establish the right mix of incentives. Property owners, such as farmers, must achieve satisfactory economic gain from selling development rights instead of developing on their land. Similarly, developers must also realize additional economic benefits from buying such rights, rather than developing under existing zoning standards. The most effective programs create market forces that balance demand and supply.

TDR programs commonly allocate development rights on the basis of one of the following methods:

- distributing TDR credits according to the property's gross acreage
- distributing TDR credits according to the amount of development potential

Following the later, recommended method, the value of a development right equals the amount that a landowner who owns restricted property in the sending area should receive in compensation for the loss of development potential.

A local government may rely on site-specific appraisals of individual sending sites to determine the value and number of credits to be allocated. In some cases, development potential is very close to actual full market value. For example, development values could be from 80 to 95% of full market value in areas with development pressure and when there are few other alternatives to development. Since communities often zone lands near military installations for less intense uses such as agriculture, local governments may have to increase incentives to sell available rights by awarding bonus credits in excess of existing zoning to property owners.

Miami Dade County currently practices this market-driven approach through a Severable Use Rights (SUR) program that promotes the transfer of development from rural, agricultural and environmentally sensitive lands to areas within the Urban Development Boundary.

Though not a pure TDR program, clustering can be an effective tool in promoting land use compatibility around a military installation, particularly on larger parcels that straddle a noise or air safety boundary. Under clustering (also known as conservation design), developers can separate the buildable areas of the parcel from areas that have a development constraint, such as noise or safety risk exposure. Standards then allow more compact lots in the developable portion of the site in exchange for the permanent protection of land in the constrained area. This essentially becomes a density-neutral transfer of development rights onto another portion of the same parcel outside of areas adjacent to the base, targeted conservation areas or designated noise or air safety zones.

Comprehensive Plan Policy

The State of Florida requires each county and city government to adopt a local comprehensive plan that guides and controls future development; promotes and protects public health, safety and order; and preserves human, environmental, social, and economic resources. The plans must include elements, addressing capital improvements, land use, transportation, infrastructure, natural resources, recreation and open space, housing, coastal management, and intergovernmental coordination. The plan then lays out a series goals, objectives, and specific policies that become the local government's framework for shaping and directing development.

As noted earlier, the State of Florida requires each jurisdiction with a military installation to consult with the commanding officer of that facility regarding proposed changes to the comprehensive plan and land development regulations that would affect the intensity, density or use of land adjacent to military operations. To facilitate the exchange of information,

local jurisdictions must include a representative of a military installation as an ex officio, non-voting member of the local government's land planning or zoning board. The act also requires that local governments include as part of the future land use element criteria to help achieve the compatibility of lands adjacent or closely proximate to military installations.

Plan policy is essential because it establishes a firm legal basis for the implementation of encroachment reduction actions. Plan elements can emphasize collaboration between the community and the military, the review of specific planning documents, such as the AICUZ, the desire to promote cooperative land use planning and complementary land use goals around the base, such as environmental and open space protection, and clear guidelines about appropriate future land use in areas vulnerable to encroachment.

Amendments typically include revisions to the future land use, transportation and intergovernmental coordination policies of the plan. Local governments may also explore the creation of a separate Military Planning Element that combines pertinent land use planning, coordination, and acquisition policies into a single section of the Comprehensive Plan.

Real Estate Disclosure

Prospective developers, buyers, and renters, particularly those new to an area, may be unaware of the special conditions that are part of living near active military airfields. A strong real estate disclosure requirement educates individuals about the potential hazards and nuisances of nearby aircraft operations, allowing them to make well-informed decisions about property investment near a military installation. Local governments would implement this tool by adopting a local real estate disclosure ordinance.

Avigation Easements

An easement is the right granted to a third person to use private real property in a specified manner. An easement may be given, for example, for overhead wires, underground gas, power, sewer or storm drain lines, and sidewalks or roads. An avigation easement is a property right acquired from a land owner that grants the right of flight over the affected parcel, including the right to:

- cause noise, vibration, dust, etc...
- restrict or prohibit certain lights, electromagnetic signals and bird-attracting land uses that could interfere with safe aircraft operation; and
- ensure unobstructed airspace over the property above a specified height.

The easement runs in perpetuity with the deed to the property and protects against lawsuits for aircraft related impacts. Local governments increasingly rely on such easements to protect military air operations against encroachment from nearby developing areas. Local governments, for example, may establish the granting of an avigation easement by the developer as a condition for the approval of a proposed new home subdivision in areas subject to military overflights.

Height Restrictions

Tall structures, such as cell towers, can pose a physical hazard to aircraft approaching or departing the airfield. In general, the Federal Aviation Administration considers obstructions to air navigation to be:

- any object that is 200 feet or higher from the ground level of the airport and within a two mile radius; and
- any object that protrudes above the plane of imaginary surfaces defined in Part 77 sections 77.25, 77.28 and 7.29 CFR.

The Air Force also defines obstructions to airspace based on specific flight routes around HARB.

Lighting Restrictions

Glare and excessive contrast caused by poorly shielded exterior lights or overlighting can compromise a pilot's ability to see clearly. Light pollution caused by unnecessary uplight (the upward flow of light beyond a fixture into the dark sky) is a particular danger as military operations rely increasingly on night vision capabilities. Night vision goggles, for example, capture and amplify any illumination in the surrounding landscape, displaying an extreme sensitivity to a broad spectrum of light sources.

Increased development, particularly if it results in streetlights or outdoor security lighting, can pose a hazard to safe aircraft navigation. To minimize the effects of light pollution, glare, and light trespass on pilots, local governments are increasingly adopting special exterior lighting standards for new development near military airfields. Lighting regulations in these areas do not prohibit outdoor illumination, but instead require the shielding of fixtures to reduce unwanted uplight.

Other Use Restrictions that Affect Airspace

Local governments may also adopt a series of performance related standards intend to eliminate conditions that may interfere with safe navigation around airfields. Uses proximate to airfields, for example, are specifically prohibited from:

- emitting a substance into the air (smoke, dust, steam) that may impair pilot vision;
- producing strong electromagnetic spectrum emissions that can degrade the performance of the military's electronic systems and communications equipment both on the aircraft and the base; and
- attracting birds to areas near airfield facilities.

Sound Attenuation

Sound attenuation refers to special design and construction practices intended to lower the amount of noise and vibration that penetrates the windows, doors, and walls of a building. Local governments near military installations would typically require attenuation as part of building code enforcement for new residential and other noise sensitive uses, such as schools, offices, places of assembly or medical facilities in noise affected areas. The recommended level of outdoor to indoor Noise Level Reduction (NLR) is based on the amount of noise exposure measured in DNL decibels. In addition to structural modifications, building location and site planning, and the design and use of berms and barriers can mitigate outdoor noise, particularly from near ground level sources. The City of Homestead currently requires noise reduction around HARB as part of its zoning code.

Land Use Controls

These tools control the densities and placement of land use activities within established noise and safety zones around an installation to protect the health, safety, and welfare of the public and to maintain compatibility with military operations. These options are intended to accommodate future growth, while minimizing the concentrations of people and activities that may trigger conflicts with noise, accident risk, and other operational impacts. Since local jurisdictions exercise land use control through zoning, any of the regulatory actions described below would be implemented through the established county/city legislative process. Regulations may include limitations on the density, scale and type of development.

Land use recommendations should seek to balance the protection of mission critical areas with opportunities to develop and realize reasonable economic return on private property. The challenge in crafting regulations is to provide clear, predictable information to land owners on development options, while giving the community and decision-makers

sufficient flexibility to adapt zoning tools to local conditions.

5.1 SPECIFIC COMPATIBILITY TOOLS

The purpose of this section is to identify how the City of Homestead and Miami Dade County can effectively apply the general approaches described above to specific areas around HARB.

The recommendations below are intended to offer a set of options to address operational issues, such as aircraft noise and the very low, but statically measurable risk of an accident, while balancing community and military interests. All of the participating entities retain the prerogative of selecting those compatibility tools that best reflect the specific issues, concerns, and needs of the community. The recommendations include major action steps to implement the strategies.

This section organizes recommendations into two categories: 1) tools to be used only within specific areas of operational impact around HARB; and 2) tools to be applied to a larger area around the base due to the more dispersed geographic nature of the impact to be addressed. The areas of operational impact are defined in the 2004 Air Installation Compatible Use Zone document (See Figure 14):

- the 65+ DNL noise contours
- The Clear Zone
- Accident Potential Zone I
- Accident Potential Zone II

The following analysis refers to these areas collectively as the Homestead Air Reserve Base Military Zone (HARBMZ).

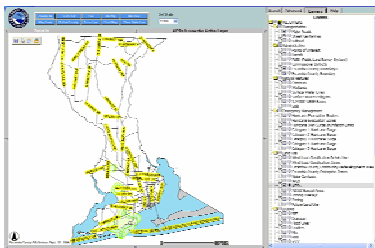
It should be noted that areas under existing easements owned by the Air Force (See Figure 12) already have conditions legally established. Any proposed uses on lands encumbered by an easement require legal review by the Air Force. These areas, therefore, are outside of the JLUS process and the

recommendations identified below.

Tools applicable to the HARBMZ

The JLUS identifies the following strategies for specifically designated areas within the HARBMZ.

1. *To the extent possible, link the HARBMZ to the property search function of the Miami-Dade County web site.*



As an example of web-based search capability, the Escambia County, Florida web site allows users to activate a mapping layer showing planning zones around Naval Air Station Pensacola.

This web-based feature allows property owners to find information, including zoning, size of lot and structures, and assessed value for individual parcels of land within the county. By including HARBMZ information (either as a notation tagged to an individual parcel or through GIS mapping), search users could readily identify if a parcel falls within a designated noise or air safety zone and locate any associated development conditions.

Action steps:

- Expand the property information feature on Miami-Dade County's Property Appraiser search site to include HARBMZ-related designations, as applicable
- Establish a link from the City of Homestead's web site to the County web site to promote increased access

2. *Seek out conservation partnerships to purchase development rights from willing landowners on environmentally sensitive property inside the HARBMZ.*

As part of this strategy, regional stakeholders including the City of Homestead and Miami-Dade County, the Air Force, the South Florida Water Management District, the State of Florida, and non-profit conservation entities, such as the Nature Conservancy, would form partnerships to secure conservation easements or to purchase development rights from willing sellers of land in proximity to HARB. As noted earlier, the acquisition must involve a voluntary transaction and demonstrate a sound, environmental purpose for the purchase.

Any conservation-based acquisition should focus on those lands that are within the HARBZ.

The Air Force should also pursue participation in the Southeast Regional Partnership for Planning and Sustainability, working to identify specific projects that strengthen conservation efforts on lands surrounding HARB.

Action steps:

- establish possible partners and funding sources
- begin the process of prioritizing land acquisition opportunities with an emphasis on privately held lands inside the HARBZ
- begin the process of educating private landowners in proximity of the base about the benefits of conservation easements and identifying willing sellers

3. *Expand or establish a by-right transfer of development rights program to shift incompatible growth away from the HARBZ.*

As part of this strategy, Miami-Dade County would modify its existing SUR program and the City of Homestead would establish a new TDR framework to promote the transfer of development from lands near HARB to areas suitable for more intense use. This strategy would designate all lands in the HARBZ as sending areas. Eligible receiving areas would include all areas within Miami-Dade County and its jurisdictions designated for development or re-development, including Empowerment Zones, Enterprise Zones, Community Redevelopment Areas and transit-oriented corridors, such as U.S. 1. The county should also seek to revise existing regulations, allowing the transfer of density to occur on a by-right basis, rather than requiring legislative approval. A by-right transfer of density minimizes the risk assumed by buyers and sellers of development credits, thus facilitating the transfer and supporting program goals.

Action steps:

- modify the existing SUR program to recognize lands in the HARBZ as eligible sending areas and designated development and re-development areas throughout the county as receiving areas
- revise existing regulations to allow for by-right transfer of density
- develop a new TDR program in the City of Homestead to include:
 - establishing sending and receiving areas as part of the city's Comprehensive Plan
 - establishing a process for assigning transferable credits (credits preferably based on the amount of development potential on the site)
 - establishing an application process for interested landowners, including a petition to participate in the transfer program and a conservation easements form that encumbers the property in perpetuity once credits are sold

The Appendix contains a sample TDR ordinance.

4. *Ensure that county and city comprehensive plan language complies with the land use compatibility and coordination requirements of Chapter 163, Part II, Sections 163.3175, 163.3177, 163.3187 and 163.3191 of the Florida Growth Management Act.*

This strategy would entail the revision of existing language and the addition of policies in the Miami Dade CDMP and the City of Homestead Comprehensive Plan. The additional Comprehensive Plan language for the city and county governments may include a reference to the HARBZ, growth management techniques, current military studies and communication and coordination procedures. The Appendix contains sample Comprehensive Plan language and the referenced sections of the Florida Growth Management Act.

Action steps:

- modify existing comprehensive plan language as necessary to include additional goals, objectives and policies that satisfy the required elements of Sections 163.3175, 163.3177, 163.3187 and 163.3191 of the Florida Growth Management Act

5. *Develop a real estate disclosure process that requires notification that a property for sale or rent is within the HARBMZ.*

As part of this strategy, the City of Homestead and Miami Dade County would require an Area of Military Impact form disclosing a parcel's location within the HARBMZ. Local governments often choose to require disclosure within a broader geographic area (typically set as a one to five mile buffer from the perimeter of the military installation).

The disclosure would be affixed to all listing agreements, sales and rental contracts, lease agreements for leases greater than three months, subdivision plats, planned unit developments and other zoning and subdivision actions, and marketing materials, such as brochures. The requirement would prohibit anyone from selling, or otherwise transferring or leasing a structure or land within the clear zone, accident potential and/or high noise zones, unless the prospective transferee or lessee receives a disclosure in writing, at the first time of property showing. Local governments would implement this tool by adopting a local real estate disclosure ordinance.

Action steps:

- modify the sample disclosure form
- establish a process for enforcing requirements (e.g. preserving disclosure through the chain of title) by recording the disclosure of potential military nuisances/impacts in City/County tax records and land sales records

The Appendix contains a sample real estate disclosure form.

6. Develop a process that requires the dedication of an avigation easement for new residential uses within the HARBMZ.

As part of this strategy, the city and county would require the dedication of an avigation easement prior to subdivision approval and building permit issuance for all new residential development within the HARBMZ. An application for a Future Land Use Map amendment, planned unit development, rezoning, recording of plat, subdivision of land and all development orders and permits, including building permits, would include a copy of a fully executed Avigation Easement, in recordable form.

Action steps:

- modify the sample easement form
- establish a process for enforcing requirements (e.g. preserving disclosure through the chain of title) by recording the easement on subdivision plats and City/County tax records and land sales records

The Appendix contains a sample avigation easement form.

7. Develop standards for exterior lighting that minimize unnecessary uplight in the HARBMZ.

With this tool, the city and county would adopt special exterior lighting standards for new development within the HARBMZ. Standards would not affect smaller scale light sources, such as individual residences, but are intended to regulate large buildings or structures, such as a manufacturing or warehousing facility, parking lots and roadway lighting, advertising signs, and outdoor recreational facilities. Standards should require that all exterior lighting be fully shielded so that all light emitted by the fixture projects below the horizontal direction. Any structural part of the light fixture providing this shielding should be

permanently affixed.

All outdoor lighting fixtures for proposed developments, buildings, and structures (as defined above) within the HARBMZ would have to comply with this shielding requirement. Regulations should also require that applicants for a building permit submit evidence that the proposed lighting will satisfy this standard, including the location of lighting fixtures on the site, a description of all lighting fixtures, and data demonstrating the angle of cut off of light emissions.

Action steps:

- establish lighting standards that require the full shielding of outdoor lighting fixtures for certain large scale developments within HARBMZ.

See the Appendix for sample exterior lighting guidelines.

8. Establish required indoor sound reduction practices for all noise sensitive uses within the 65+ DNL contours of the HARBMZ.

As part of this strategy, Miami Dade County and the City of Homestead would require the new construction of noise sensitive uses, including housing, schools, medical facilities, offices and places of assembly, within the A-weighted DNL noise contour of 65 decibels or higher in the HARBMZ to incorporate indoor noise reduction practices in accordance with the noise compatibility guidelines established in the Air Installation Compatible Use Zone study. It should be noted that this tool would not affect land uses deemed to be less noise sensitive, such as industrial, manufacturing and many retail and business operations. The policy should require applicants for a building permit to submit evidence that construction includes structural modifications sufficient to achieve the recommended noise level reduction standard.

The Appendix contains indoor noise attenuation guidelines.

Action steps:

- require the appropriate level of sound reduction for any new residential or noise sensitive construction within noise contours of 65 decibels or higher in the HARBMZ
- the City of Homestead would update its Comprehensive Airport Zoning Ordinance to reflect the most current language on noise contours, procedures, affected land uses, and recommended levels of noise reduction

9. Establish a zoning district overlay for new development in the HARBMZ.

Under this strategy, the City of Homestead and Miami Dade County would adopt a special zoning district overlay within the HARBMZ. An overlay district imposes a series of additional requirements atop the existing density controls of the underlying zoning. When in conflict, the more restrictive condition takes precedence.

Such a district can combine many of the individual strategies identified in this section, such as disclosure, easement dedication, lighting, height, and bird air strike restrictions into an integrated land use policy applicable to all property within the HARBMZ. Particular requirements may apply to all parts of the HARBMZ or only to a specific area, such as the high noise zone.

While these standards control the overall performance of particular uses around the base, it is also critical to consider the scale and density of development within the HARBMZ.

The recommendation for an overlay district does not affect underlying zoning for property around HARB. As concluded in Section 4, current zoning, which is predominantly agricultural or vacant, does not conflict with airfield operations.

However, as rezoning activity occurs or if and when expansion of the Urban Development Boundary necessitates the

reclassification of land, the JLUS recommends that the City of Homestead and Miami-Dade County adopt land use controls that achieve consistency with AICUZ land use compatibility guidelines (as identified in the 2004 AICUZ document), while accommodating local development and economic growth and protecting private property rights.

Action steps:

- adopt a special zoning district overlay for the HARBMZ that imposes a series of additional requirements, such as disclosure, aviation dedication, height and lighting restrictions, atop the existing density controls of the underlying zoning
- as rezoning activity or expansion of the existing UDB occurs, develop land use controls for density and scale that promote compatible development within the Clear Zones and Accident Potential Zones

The Appendix contains a sample zoning ordinance and detailed information on AICUZ compatibility guidelines.

Tools applicable to the HARBMZ and additional areas

The JLUS identifies the following strategies for a broader geographic area that includes the HARBMZ and adjacent areas.

- 10. Develop a procedure that notifies the Air Force of the proposed placement of vertical structures in excess of 200 feet in the HARBMZ and in excess of 500 feet within a 10 mile radius of HARB.*

Under this option, the City of Homestead and Miami Dade County would notify the Air Force of the proposed siting of vertical structures that physically penetrate the airspace around HARB and may pose a safety hazard to personnel and aircraft participating in training activities. Such procedures should identify all structures of 200 feet or higher within the HARBMZ and any structures of 500 feet of higher within a 10 mile radius

of HARB.

Action steps:

- establish a procedure that identifies the proposed placement of structures of 200 feet or higher within the HARBMZ and 500 feet or higher within a 10 mile radius of the base

11. Develop coordination mechanisms among local, state and federal entities, including the NPS and Air Force on the placement and design of land uses and facilities that attract a significant bird population.

Under this tool, the city and county governments, federal entities and the Air Force would collaborate to regulate the placement of uses and structures, such as waste disposal or storm water facilities or artificial water bodies that could result in significant bird feeding, water or roosting areas near the airfield. Commercial agriculture should be specifically excluded from the list of such regulated uses.

Action steps:

- establish procedures to notify local, state and federal entities of proposed land use actions that could result in significant concentration of birds near HARB and its approach and departure patterns

Figure 14. Homestead Air Reserve Base Military Zone - Clear Zones, Accident Potential Zones I and II, and 65+ DNL Noise Contour

