Scott Air Force Base  
Regional Planning Workshop Results  
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This project is cooperatively executed by

University of Illinois  
LEAM Laboratory

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East West Gateway  
Council of Governments

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LEAM development and applications are conducted and managed by a team of faculty, staff, and students from the University of Illinois at Urbana-Champaign.

LEAM brings together expertise in substantive issues, modeling, high performance computing, and visualization from the departments of Urban and Regional Planning, Geography, Economics, Natural Resources and Environmental Sciences, Landscape Architecture, Civil Engineering, the National Center for Supercomputing Applications (NCSA), ERDC Construction Engineering Research Laboratory, and private industry.

Dr. Brian Deal  
Director, LEAM Lab  
Urban and Regional Planning  
217.333.1911  
deal@uiuc.edu  
www.leam.uiuc.edu

David Wilson  
Planning  
EWG Council of Governments  
3144214220  
david.wilson@ewgateway.org

Dr. Jim Westervelt  
ERDCERL  
217.373.4530  
jwestervelt@cercec.army.mil
Summary of the Scott Air Force Base Regional Planning Workshop

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A Regional Planning Workshop dedicated to Planning for the Region around Scott Air Force Base was held in Mascoutah, IL to provide key stakeholders in the region an opportunity to consider the future in terms of economic development, land use and their effects on Scott Air Force Base. The twenty workshop participants (see Appendix A for the complete list of participants), included local planners, economic development interests, local government officials and state agency representatives, representatives from Scott Air Force Base, and staff from the University of Illinois LEAM Laboratory and the Army Corps of Engineers Construction Engineering Research Laboratory (CERL). Participants discussed key drivers of growth in the region, important regional issues arising from this growth, including the implications of this growth on Scott AFB, and different future scenarios of relevance to the region. This report summarizes the ideas that emerged from these discussions, which will drive the continuing work by the University of Illinois and CERL on important economic development and encroachment issues in this region.

Workshop Format

The workshop began with an initial presentation and description of the tools and methods used to describe possible land use futures in the region and their implications. LEAM (the Land Use Evolution and Impact Assessment Model) simulates future land use change in a region and LEAMtom (the LEAM Training Opportunity Model) assess how those changes implicate the potential for restricting training or other mission related activities on a military installation.

Participants were then asked to consider questions posed in three critical areas: an assessment of the LEAM outcomes in terms of regional economic development, the critical issues related to Scott AFB that arise due to the noted changes in the region, and what actions might be taken to help mitigate these issues, or to help stimulate economic activity.

These questions were considered while viewing scenarios developed using the St. Louis Blueprint model, a version of LEAM for the ten county St. Louis region developed by the University of Illinois LEAM Laboratory with the EastWest Gateway Council of Governments, Southwestern Illinois RC&D and several Illinois state agencies. The Blueprint Model is a version of the LEAM model incorporating regionally customized information and issues.

Questions for Discussion

Assessment of the Current LEAM results

- Do results of current simulations make sense?
- What new factors might be considered, or existing factors dropped or changed, to improve these simulations?

Issues to Examine

- What are the important impacts of growth to consider?
- What economic development issues are important to the SAFB region?
- What encroachment issues may the base confront in the future?

Actions to Consider

- What scenarios involving different future public investments and public policies should be developed?

The LEAM Process brings local stakeholders together to describe issues and specific concerns that may have an impact on, or be affected by, land use change over time.
What is this project about?

**SERDP Project:** The Construction Engineering Research Laboratory and the University of Illinois were awarded funding by the Strategic Environmental Research and Development Program (SERDP) in 2001 to use LEAM to quantify the current and future impacts of urbanization on the operation and sustainability of military installations. The first three years of the project focused on development of both the land use model and the training opportunities models. In this final year of the SERDP project, the LEAM and military impact models are being applied in regions around two installations to illustrate the usefulness of these tools – one application being in the SAFB region. The initial analyses and this workshop were the first steps in this application. LEAM will be further localized and other scenarios will be run based on the suggestions from this workshop. The project will finish with a presentation of the next set of results to participants in early 2006.

**LEAM:** The Landuse Evolution and impact Assessment Model is a tool that simulates land use change across space and time, allowing planners, policy makers and interest groups to visualize and test the impacts of various policy decisions. The greatest benefit of this tool is its ability to analyze a variety of “what if?” scenarios and examine the “so what?” impacts of urban growth.

**Blueprint Model:** Working with the EastWest Gateway Council of Governments, Southwestern Illinois RC&D, and several state agencies, a St. Louis regional LEAM is being developed – Blueprint LEAM is part of a program to develop a ‘blueprint’ toward a sustainable future in the St Louis region. The LEAM for this ten county region will enable EastWest Gateway to implement a continuous regional planning process and to assist in local planning activities.

Planning Tools

LEAMtom evaluates how future development impacts future training opportunities on a military installation. LEAMtom uses the maps generated from LEAM runs to produce an Annoyance Tolerance Contour map (see maps to the right) for any given scenario. Each grid cell in this contour grossly represents the percent likelihood for civilian complaints being generated from training exercises occurring within that cell.

The two maps to the right represent the annoyance tolerance contours for C130 training in 2000 and in 2030. In each figure, the green areas represent a relatively low probability of eliciting a complaint if the training were to be conducted there. The probability of complaint increases as the training exercise moves from green to amber and from amber to red. White areas are considered unacceptable for training due to very high complaint probability. This initial analysis suggests that future growth may limit training activities at the base.
Assessing Blueprint Model Simulations

Workshop participants were asked to provide their views on the initial LEAM results – maps indicating where future development may occur, assuming business as usual or higher growth trends. Participants provided comments on where they believe the model is wrong and where it is right in terms of where residential and commercial development will occur, and also some ideas on other data and drivers we should consider. The map below illustrates many of the comments that were generated. Comments included: the potential for growth in an area east of O’fallon that is already platted and beginning to develop, an area north of the base that will likely be commercial development, a 1,000 acres north of I64 proposed for commercial development and a new road (Frank Scott Parkway). These areas where development is plotted or proposed will be added as areas where infrastructure is available and therefore have a higher probability of development. There were also suggestions that we try to obtain data on building permits, plotted lots, and locations of new/planned utility infrastructure to help determine where other nearterm development may occur.

Participants provided comments and suggestions on maps concerning the initial results, factors that will influence future growth, important issues in the region, and possible scenarios for LEAM simulations. This map illustrates some of the more important comments provided at the workshop.
Assessing Blueprint Model Simulations

Encroachment and economic development in the region were the main focus of the workshop. The discussion on encroachment focused on the AFB mission and existing programs for delineating sensitive areas such as AICUZ (Air Installation Compatible Use Zone). Concerns about the enforcement of AICUZ guidance were addressed along with a discussion regarding the process of updating the current zones and their configuration. Installation representatives expressed an interest in studying the affects of extending the AFB runway northwest by 2,000 feet and the implications to the AICUZ.

Economic development discussions focused on several issues including the possible expanded use of MidAmerica airport for increased passenger and cargo business. Areas of discussion also included 1,000 acres of potential commercial development in O’fallon, an industrial park near the airport and a proposal for an office park, hotel, and conference center at MidAmerica. It was noted that some of these potential development proposals could lead to encroachment concerns at Scott AFB. Specifically, since Scott uses the MidAmerica runway, an increase in civilian use could hasten the need for the extension of SAFB’s runway. There was a general recognition that the local communities and the Air Force must work more closely together to balance economic growth with the sustainment of the AFB.

Other economic development interest were the impacts of expanding MetroLink to MidAmerica, the new coal power plant in Marissa, the Gateway Connector, and the national shooting range in Sparta.

Above is a map overlaying LEAM results on accident protection zones and noise contours from the AICUZ study. The circled areas represent where LEAM shows future growth occurring in the protection zones and noise contours, potential. The base and local communities need to determine whether growth in these areas will affect the mission of the base and what policies (such as minimizing development in AICUZ) should be considered.
Finally, the workshop focused on what possible actions local stakeholders might consider as potential future scenarios to be evaluated using LEAM simulations. Scenarios typically involve future public investment, public policy, or a change in demographic/economic trends. Participants were asked to consider “What will happen?”, “What could happen?”, and “What would they like to see happen?”

Eighteen scenario ideas were suggested by participants. These scenarios fall into one of four broad categories (see table below), including policies to minimize potential encroachment, economic development in the region, change in the mission/or personnel at the installation, and transportation issues (new investments, changing trends). Many of the suggested scenarios are related to changes to the base and transportation projects. Some of the more unique and interesting ideas included examining what happens to the region if more employees in the region telecommute and what affect would $5/gallon gas prices have on growth patterns.

### Suggested Scenarios

**Minimize Potential Encroachment Issues**
- AICUZ-based landuse guidance
- Minimize development in Accident Potential Zone I and II

**Change in Mission/Personnel at SAFB**
- Extend SAFB runway 2,000 feet northwest
- 25% increase in SAFB personnel/space
- Current plus up of SAFB (resulting from BRAC)
- Adding vehicle training to mission
- Adding national guard unit near base
- Adding fighter planes to base mission
- Closure of Scott

**Economic Development**
- MidAmerica capacity increases (increase commercial capacity and cargo)
- New coal plant and large residential development at Marvisa
- National shooting range in Sparta

**Transportation**
- New interchange on I64 at Cardinal Court
- I1 158 (Gateway) connector
- New Metrolink route to MidAmerica
- New Mississippi River bridge
- Rising gasoline prices ($5/gallon)
- More employees in region telecommuting
Prioritizing the scenarios that affect landuse change

After the lists of potential scenarios were generated, each participant was asked to vote for the five scenarios they were most interested in. The two graphs on this page summarize prioritization of scenarios through the voting process. Generally, transportation scenarios were deemed the most important by local stakeholders, followed by changing the mission/personnel at the base.

In terms of individual scenarios, the top votegetter was the increasing capacity at MidAmerica airport; one vote behind was the new I64 interchange, the Gateway Connector, and extension of the runway at the base. Those with the fewest results were either very detailed issues related to Scott Air Force Base, more general issues such as gas prices, telecommuting, or projects south of the immediate base region such as national shooting range and new coal plant.
There were two recurring themes that came out of the brainstorming session. As part of a discussion on the expected outcomes of this project and future collaborations major themes included: (1) the need for a forum to facilitate a long term dialogue on important planning issues for Scott Air Force Base and its surrounding communities, and (2) the need a regional comprehensive land use plan. Many participants believe that LEAM is a good tool for creating a dialogue and collaborating on regional planning issues between local communities and the base. Many also believe that EastWest Gateway Council of Governments must lead this planning effort by organizing the forum and providing technical assistance for sustaining a longterm partnership. Participants were emphatic about the need to maintain a forum of SAFB and local communities beyond this project.

As a part of the discussion on these two themes, it was mentioned that Scott Air Force Base has applied for a Joint Land Use Study (JLUS). The JLUS program, managed by the Department of Defense’s Office of Economic Adjustment, provides grants for cooperative land use planning between local governments and a military installation. A JLUS can help to promote comprehensive community planning, encourage a cooperative spirit between base command and local governments, and lead to recommendations for preserving long term land use compatibility between the installation and surrounding communities. With a new AICUZ planning to be completed in the spring, the time may be right for a JLUS. Many of the participants believe the results of this application of LEAM to the SAFB region can provide much of the information and analysis needed for developing a joint land use study. With LEAM and the JLUS, local stakeholders will have both the tools and process for a continuing dialogue.
Localizing LEAM and LEAMtom for the SAFB Region and Selecting a set of scenarios for model development

Discussions of regional landuse issues and working on ways of addressing these issues cannot end with this Workshop. To move this conversation forward another step, the University of Illinois LEAM Lab will build on the ideas that emerged from the Workshop. This will be in the form of new scenarios that capture the drivers and issues described above. A limited set of scenarios will be simulated using the following criteria to prioritize and combine suggestions from Workshop participants:

- Perceived importance to the region: based on the discussion and votes cast by participants
- Relationships and importance to other dynamic landuse change parameters: based on the likelihood that are the factors and scenarios suggested will significantly affect landuse change
- Feasibility of incorporating a driver or scenario into the dynamic spatial environment of LEAM: based on availability of data and whether data can be transformed into LEAM’s dynamic spatial environment; other technical constraints of the modeling environment may also come into play.

New scenarios will combine those factors that are strongly related to each other. For example, an increase in MidAmerica Airport’s capacity will likely be associated with a different factor, extending the SAFB runway, because increased capacity at the Airport will limit SAFB’s ability to use the civilian runway. Similarly, a scenario that includes expansion of SAFB will also include extension of the runway. Both these scenarios can be further combined applying the effect of AICUZ landuse guidance. Expansion of either the civilian airport or the base is likely to lead to more growth nearby and a policy to limit growth in the AICUZ (which will be larger with extended runway), and could push the growth out of the immediate area. Using this kind of logic, three scenarios should cover most of the ideas that emerged from the workshop: 50% increase in SAFB personnel; expansion of MidAmerica Airport; road infrastructure improvements. A fourth scenario, of brownfield redevelopment along the Illinois banks of the Mississippi River, will also be complete at that point. In addition, the new simulations will include some of the corrections and changes identified by workshop participants.

A second workshop will be held in early 2006 to consider the results of the additional scenarios and analysis completed as above. Of course, that will not be the end of planning for the SAFB region. Based on the insights that emerge from these analyses and discussions at the two workshops, local jurisdictions and SAFB must begin to consider how to address these in landuse plans and capital improvement programs, among other planning efforts. The group that has gathered for these workshops will hopefully continue to meet and to communicate and coordinate. With leadership from SAFB, and support from local jurisdictions, a successful application for funding for a Joint Land Use Study will further bolster these efforts.
Scott Air Force Base Regional Planning Workshop
November 3, 2005

Attendee List

Local Stakeholders

Clyde Beimfohr
EDC Chairman, City of Mascoutah

Gerald Daugherty
Mayor, City of Mascoutah

Tony DeSimone
HQ AMC/Community Planner, Scott AFB

Terry Draper
City Manager, City of Mascoutah

Andy Glassberg
Director, Public Administration
University of Missouri St. Louis

Joseph Hart
HQ Community Planner, Scott AFB

Dan Keefe
Policy Analyst
Illinois Department of Commerce & Economic Opportunities

Edie Koch
Southwest Region Manager
Illinois Department of Commerce & Economic Opportunities

Chuck Kofron
GIS Coordinator, St. Clair County

Rich Kordesh
Principal, Blue House Institute

Larry Pasek
Deputy Base Engineer, Civil Engineer Squadron, Scott AFB

Jenny Reiman
GIS Planner, Southwestern Illinois RC&D

Paul Schmidt
Chief of Engineering, 375 Civil Engineering Squadron
Scott AFB

Ted Shekell
Planning Director, City of O’Fallon

Hank Sinda
City Manager, City of Collinsville

Project Lead Organizations

Brian Deal
Professor, University of Illinois

Wayne Hartel
LEAM Project Specialist, University of Illinois

Bruce MacAllister
Ecologist, US Army ERDC

Steve Nagle
Director of Planning
EastWest Gateway Council of Governments

Zhanli Sun
Research Associate, University of Illinois

Jim Westervelt
Research Scientist, US Army ERDC

David Wilson
Division Manager
EastWest Gateway Council of Governments