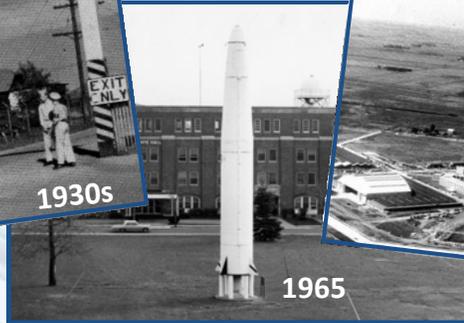
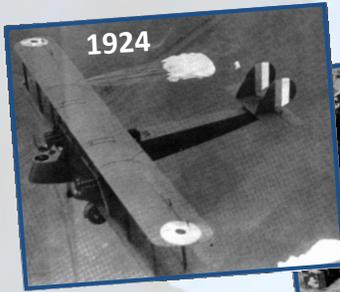




August 2011

Toll Free: 1-866-725-7617

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## Overview of Environmental Restoration

at the former Chanute Air Force Base in Rantoul, Illinois

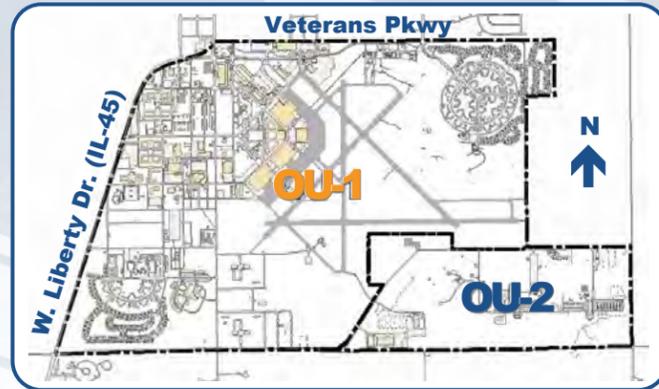


Air Force Real Property Agency  
2261 Hughes Ave., Suite 121  
Lackland AFB, TX 78236-9821

# Overview of the Former Chanute Air Force Base: Status of Land Transfer and Superfund Cleanup

## Chanute Air Force Base Facts

- ◆ Active military base for 76 years, from 1917 to 1993
- ◆ Base was used for pilot and mechanic training, aircraft maintenance and engine storage, weather observation, life support activities, and aerospace/weapons training
- ◆ Included in Base Realignment and Closure (BRAC) in 1988
- ◆ Comprised of 2,174 acres, 1,588 of which have been conveyed and 586 remaining to be conveyed after cleanup
- ◆ Divided into two operable units, OU-1 and OU-2, each with a number of sites for environmental cleanup
- ◆ Remedial investigations began in 1994, completed in 2008
- ◆ Environmental cleanups began in the 1990s
- ◆ Undergoing environmental remediation under:
  - The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (Also known as the “Superfund”)
  - The Superfund Amendments and Reauthorization Act (SARA)
  - The National Contingency Plan (NCP)
  - The Illinois EPA Leaking Underground Storage Tank Program
  - Applicable or relevant state and federal requirements
- ◆ Documented in the Chanute Information Repository at the Rantoul Public Library and online in the Admin Record at <https://afarpaar.lackland.af.mil/ar/docsearch.aspx>



## Environmental Restoration Completed by the Air Force So Far

Upon listing Chanute AFB for closure in 1988, the Air Force (AF) began to secure the properties and identify and remove materials that could potentially be released to the environment. The efforts included:

- ◆ Removal of all munitions and chemicals stored onsite
- ◆ Emptying, cleaning, and evaluating aboveground storage tanks
- ◆ Excavation, removal, and evaluation of underground storage tanks

After initial decommissioning, the AF began investigations to identify sites where hazardous substances could pose a threat to human health or the environment. Several areas of substantial risk were identified, and restoration of those areas began, including:

- ◆ Consolidation and capping of Landfills 1, 2, and 3
- ◆ Excavation of soil at the Fire Training Area 2
- ◆ Removal of underground storage tanks
- ◆ Thermal desorption of soil contaminated with fuel

The AF conducted more comprehensive investigations under CERCLA from 1998 to 2008 to identify potential soil and groundwater contamination, identifying 81 sites that could have possibly released hazardous substances into the environment.

Overall, more than 7,300 soil samples, 3,300 groundwater samples, and 900 samples from other media have been collected throughout and surrounding

the former Chanute AFB based on current and historical data.

The CERCLA investigations determined that 44 of the sites did not pose an unacceptable human health or environmental risk; however, 37 sites did warrant further remedial action.

In 2008, the AF awarded a performance-based contract for the final cleanup of 32 of those sites under CERCLA and 5 of those sites under the Illinois EPA tank cleanup program.

Remedial actions were completed at 5 sites in 2010. Remediation began or will begin on 19 sites in 2011.

**Final cleanup of the base is planned to be completed by 2016.**

## Will the Site Cleanup Strategies Include Land Use Restrictions?

Land use controls are used by virtually every municipality as zoning ordinances to allow orderly development of communities.

Such zoning ordinances restrict the construction of specific types of development that may impact one another. An example would be an ordinance to restrict construction of a machine shop within a residential community.

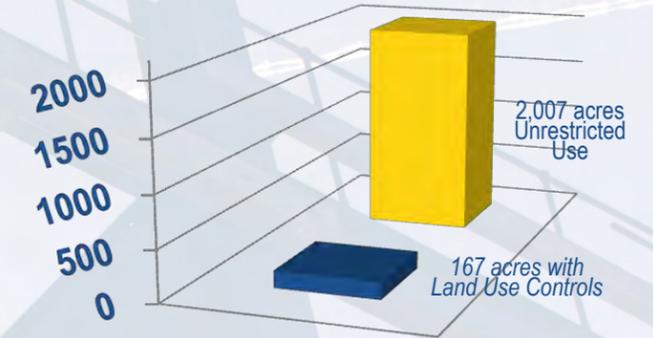
Land use controls have also been used extensively at CERCLA sites as a method to allow certain uses of properties that may not be suitable for residential use because of increased environmental exposures.

A survey in 2002 indicated that of all closed CERCLA sites in the United States, approximately 50 percent included some form of institutional controls or land use restrictions.

Land use restrictions at the former Chanute AFB will be implemented at the four landfill sites to ensure due care and custody of these facilities for an extended period of time.

Land use controls will also be implemented at only four more CERCLA sites (a former skeet range, water tower, fire training area, and waste disposal pit) to limit the sites from residential use.

These sites are located in the industrial or aviation areas that already have zoning ordinances to prevent residential use. Land use controls at these sites will ensure that human health



The above chart shows that 92 percent of the former Chanute AFB's total acreage of 2,174 acres will have no environmental restrictions for land use.

and the environment remain protected, consistent with the planned reuse of the sites. All other sites at the former Chanute AFB will be cleaned up to unlimited use and unrestricted exposure.

Groundwater cleanup is expected to be achieved at most sites prior to property transfer. However, if properties overlying contaminated groundwater are transferred before cleanup is complete, land use restrictions would also be required at these sites. Such restrictions would prohibit the use of groundwater by, for example, prohibiting the installation of potable water wells or wells to water livestock or crops.

These restrictions would be removed once cleanup criteria for unlimited use and unrestricted exposure have been met.

## Role of the Former Chanute AFB Restoration Advisory Board

The former Chanute AFB Restoration Advisory Board (RAB) is a group established to advise decision makers on community concerns regarding environmental cleanup.

Quarterly meetings of the former Chanute AFB RAB provide a forum for early discussion and continued exchange of environmental restoration information between the AF, regulators, and the community.

The group consists of community co-chair Bruce Sandahl, AF representative co-chair Paul Carroll, Illinois EPA representative Chris Hill, and seven community members from the Rantoul area.

All RAB meetings are held locally and are open to the public. New member applications are considered yearly. RAB members serve voluntarily and

have the opportunity to review cleanup plans and program priorities, and comment on technical documents.

For more information on joining the Chanute RAB, please see the contact information provided below.

**AIR FORCE COMMUNITY OUTREACH PROGRAM**  
 PUBLIC AFFAIRS OFFICER: ARMANDO PEREZ  
 PHONE: 1-866-725-7617 EMAIL: ARMANDO.PEREZ.1@US.AF.MIL

# Former Chanute Air Force Base Reuse and Redevelopment



Above, the Glen Town Center has been developed on land that was once used by Glenview Naval Air Station in Glenview, Illinois. Photo from USEPA "Turning Bases Into Great Places."

## Base Realignment and Closure in Illinois

The former Chanute AFB is one of five former military bases in Illinois and 134 throughout the United States that have been closed or are undergoing closure through the BRAC process.

Overall, the Department of Defense (DoD) is responsible for environmental restoration at 5,400 sites on bases closed under BRAC, 21,500 sites on active bases, and over 4,700 formerly used defense sites.

Other communities in Illinois that have gone through BRAC closures include those in Glenview (Naval Air Station Glenview), Chicago (O'Hare Air Reserve), Fort Sheridan (Fort Sheridan), and Savanna (Savanna Army Depot).

The DoD has implemented five rounds of BRAC closures, in 1988, 1991, 1993, 1995, and 2005. The former Chanute AFB was included in the first round in 1988.

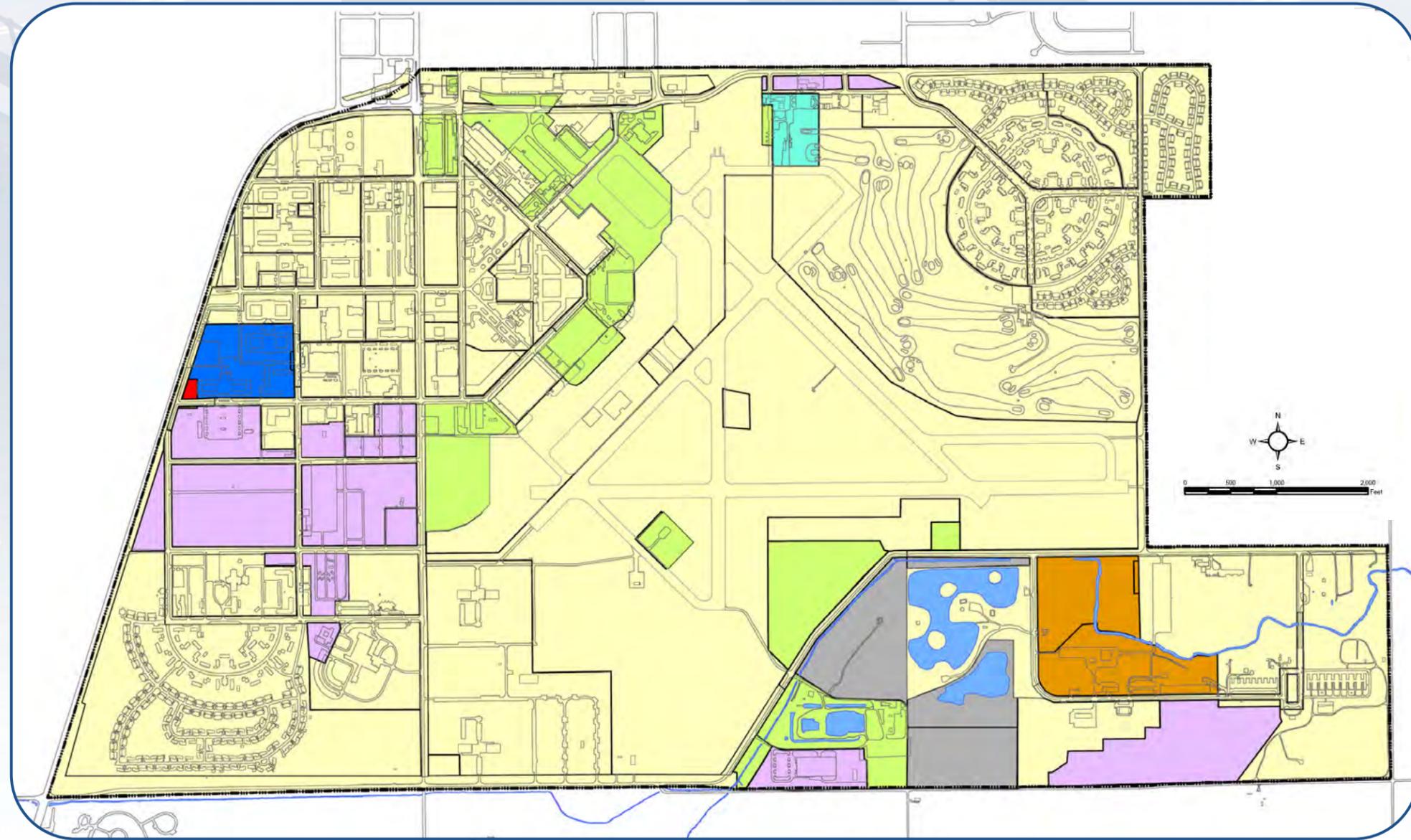
The goal for bases in the first four BRAC rounds is to achieve site closure or a cleanup remedy operating in place by 2015.

**RESTORATION STATUS AT FORMER U.S. MILITARY BASES**  
 RESPONSE COMPLETE — 3,953 SITES  
 RESPONSE NOT COMPLETE — 1,492 SITES  
 LONG-TERM MANAGEMENT REQUIRED — 440 SITES

The DoD estimates that the first four rounds of closures reduced the size of its domestic infrastructure by about 20 percent and generated \$6.6 billion in net annual recurring savings beginning in fiscal year 2001.

While much of the property at the former Chanute AFB has already been transferred or is currently in lease, the future property reuse of the former Base is being handled by the Village of Rantoul. The map to the right shows the Village's land reuse plan for the Base.

## Former Chanute Air Force Base Current Property Status



### LEGEND

- Property Transferred to Date
- Base Boundary
- FAA PBC - Transfer Ready (VoR)
- FAA PBC - Not Transfer Ready (VoR)
- Negotiated Sale - Transfer Ready (LCA)
- Negotiated Sale - Not Transfer Ready (LCA)
- DOI Assignment - Not Transfer Ready (VoR)
- DoEd Assignment - Not Transfer Ready (VoR)
- Public Sale - Not Transfer Ready (Golf Course)

### ACRONYMS

- FAA - Federal Aviation Administration
- DoEd - Department of Education
- DOI - Department of Interior
- LCA - Lincoln's Challenge Academy
- PBC - Public Benefit Conveyance
- VoR - Village of Rantoul

# A Perspective of Environmental Cleanup at the Former Chanute Air Force Base

The Superfund is just one program under which properties in the United States are being environmentally restored, ranging from small-scale cleanups at private residences to disaster-level response to large industrial releases.

Chanute is being addressed under the Superfund program because it is a federal Department of Defense facility. Similar cleanups have been performed and are ongoing at over 500 military bases, both active and inactive. These programs follow regulations specific to Illinois, as well as federal regulations such as the Resource Conservation and Recovery Act (RCRA) and Clean Air and Water Acts.

The environmental protection and restoration activities at the former Chanute AFB have followed an order of priority based on the overall potential impacts to human health or ecological receptors. The first priority was to secure and remove all chemical storage facilities at the base to eliminate potential for release of hazardous substances. The AF began this critical step in 1993 with all stored materials such as drums, tanks, and stockpiles completely removed by 1995. The second priority was to begin cleanup of sites that have a high potential for possible exposures. These sites included the Landfills 1, 2, 3, and 4, the Fire Training Area 2, all underground storage tanks, and the former base gas station.

The AF is now implementing remedial activities to clean up all remaining sites that have impacted either soil or groundwater. A more detailed perspective of these cleanups is presented here.

“OVER 500,000 SITES HAVE BEEN CLEANED UP UNDER HAZARDOUS WASTE CLEANUP PROGRAMS IN THE UNITED STATES DURING THE PAST 25 YEARS, AND NEARLY 300,000 SITES WILL BE CLEANED UP OVER THE NEXT 30 YEARS.”

— USEPA Publication 9200.1-104, 2011

**Gas stations** since the early 1900s have stored gasoline in underground storage tanks (USTs) to protect the tanks and eliminate potential fire hazards.

Prior to 1980, virtually all USTs were single-walled and many had corrosion that allowed fuels to leak outside the tanks. These tanks weren't regulated until the mid-1980s, at which time there were already 2 million USTs in the U.S.

New rules required USTs to have corrosion protection, overfill/spill protection, and leak-detection devices by 1998. Nationwide programs were implemented to stop spills, remove tanks, clean up contaminated soil and groundwater, and replace the tanks with double-lined tanks that meet new stringent regulatory requirements.

The Chanute AFB gas station located near the intersection of Century Boulevard and Highway 45 was demolished in 1995. The USTs were removed and approximately 20,000 tons of soil were treated to remove all fuel residues. This site is presently undergoing final restoration.



Service station at Chanute being constructed in 1941.



Historic flightline maintenance.



Historic fire protection training activities at Chanute.

**Dry cleaning operations** typically use a solvent called perchloroethene (also known as PCE or “perc”) to wash clothes in an enclosed dry cleaning machine. PCE has been used because it has a very low odor threshold, does not stain clothing, and is effective at removing oil and grease. Dry cleaning solvents such as PCE can end up in the ground when they seep through cracks in the floor, are mopped into drains, leach from dumpsters, leak from sewers, or are accidentally spilled.

There are approximately 1,000 dry cleaning operations in Illinois, and approximately 93 percent of dry

cleaning facilities are estimated to have soil or groundwater contamination exceeding Illinois EPA standards.

Remedial investigations at the former Chanute AFB Laundromat building found chlorinated solvents in soil below the building at relatively high concentrations. PCE trapped directly below the slab must be removed to prevent further migration into groundwater. The groundwater immediately surrounding the building also has PCE at concentrations above drinking water standards and must be remediated.

Indoor air concentrations were also investigated to determine whether workers inside the building may have unacceptable health risk exposures. Indoor air sampling results detected low levels of PCE in the air that were within the National Contingency Plan target cancer risk management range for workers, indicating that the current users of the building have an acceptable exposure risk.

Remedial actions are planned for this site to start in late 2011 with partial building demolition, removal of contaminated soil, and treatment of groundwater to drinking water quality standards.

**Fire training areas** are used by military and civilian fire crews to get direct experience with firefighting activities and are a critical function to training crews. Military fire training areas typically use a building, vehicle, or aircraft with fuels as a place to simulate fire scenarios.

At the former Chanute AFB, Fire Training Area 2 was used extensively for these training exercises. Excess fuels from these fire training activities soaked into the soil and posed a potential risk for migration from the soil to the groundwater in that area.

The AF implemented remedial actions in 1999-2000 to remove approximately 50,000 cubic yards of soil that were hauled off-site to a secure hazardous waste landfill. Additional investigations have been conducted to determine what residual material may be present.

Some small areas of soil contamination have been identified and remedial actions to restore this site will be implemented in 2012.

**Landfills** have been used for thousands of years to deposit waste products at locations that are removed from normal human use. Up until the second half of the 1900s, wastes were commonly placed in open pits, trenches, or ravines, and either burned or covered with layers of soil.

This was also true for four landfills at Chanute that were in successive operation from 1941 until 1974. The primary concern with this waste disposal method is that materials placed in unlined and uncapped landfills could leach from the disposal areas and migrate from the landfills, impacting groundwater or rivers and streams. With more modern methods of landfill construction in place since 1970, the due care for landfills now includes a cap for the landfill to eliminate rainfall penetration, and drain systems or liners to control leachate from the landfill.

Investigations at the former Chanute AFB landfills did show that leached substances could potentially reach Salt Fork Creek. However, the thick clay soils in this area inhibit the migration of contaminants.

The AF implemented remedial actions to install geosynthetic caps and leachate drain systems at existing Landfills 1, 2, and 3 from 2002 to 2004. The remaining Landfill 4 cap is currently being installed. With the caps in place, long-term care and monitoring of these landfills will be required for at least 30 years to ensure that substances do not leach from the landfills.

# The Future of the Former Chanute AFB

## A Message on the Vision of Rantoul's Future

The following is excerpted from Village of Rantoul Administrator Bruce Sandahl's article in the Rantoul Press on June 9, 2011, "Village of Rantoul—A community with a bright future."

As village administrator, I want to share with the public some of the great things happening in our community, including sharing the Village of Rantoul's Strategic Plan Vision Statement.

As you read through the following words, we'd like residents and our neighbors to think about what we are trying to accomplish and what needs to be done to live up to our vision. As one of the larger communities in Champaign County, we want our citizens, friends and neighbors to realize the outstanding economic potential of Rantoul now and in the future.

Rantoul is a multicultural community that values its citizens, community groups, schools and businesses. It is a community with a strong emphasis on quality education and one that enjoys a positive image among our citizens and visitors. Rantoul is a vibrant, growing community with safe, attractive residential neighborhoods and profitable commercial and retail establishments.

Within the Strategic Plan there are specific goals such as:

1. Promote economic growth within the Village.
  - ◆ Encourage and support commercial and retail development
  - ◆ Encourage and support residential development
  - ◆ Continue to eliminate blighted property
  - ◆ Continue aggressive community cleanup efforts
2. Adopt and support the updates to the Village zoning codes and development standards.
3. Continue to work with the Air Force Real Property Agency (AFRPA) on environmental remediation and to transfer all remaining properties.
4. Work with Lincoln's Challenge to transfer required property to support and facilitate the new campus project.
5. Continue to work on improving Rantoul's public image and its outreach to all citizens and to other units of government. ...

“WE HAVE HAD SEVERAL POSITIVE MEETINGS WITH THE AIR FORCE OVER THE PAST 24 MONTHS AND WITH THEIR HELP AND COOPERATION WE NOW HAVE SIGNED AGREEMENTS THAT WILL FINALLY BRING THE CHANUTE CLOSURE PROCESS CLOSER TO AN END.”  
— Village of Rantoul Administrator Bruce Sandahl

THE AIR FORCE HAS RECENTLY ENTERED INTO AN AGREEMENT WITH THE VILLAGE TO DEMOLISH CERTAIN FACILITIES AND STRUCTURES. DEMOLITION REQUIRES THE VILLAGE AND THE AIR FORCE TO FIRST AGREE TO ECONOMIC DEVELOPMENT CONVEYANCE OF REMAINING PROPERTY AND UTILITIES.

**Our Progress to Date: Chanute AFB Property Transfer** — We continue to work with the AFRPA on remediation activities for all remaining properties with environmental concerns.

After 18 years, since the base closed, we are finally making renewed progress on the proposed property transfers. We have had several positive meetings with the AF over the past 24 months and with their help and cooperation we now have signed agreements that will finally bring the Chanute closure process closer to an end.

The new agreements include the demolition of White Hall, the Steam Plant, steam line vaults and junction boxes, demolition of three water towers and refurbishment of the tower currently in use. These major demolition projects will further enhance our economic development opportunities and base closure economic recovery.

We are also in discussions with the FAA and the AF concerning the potential to reduce the total acreage of the airport designated property and to transfer that land and buildings directly to the Village. Mayor Neal Williams, the Village Board, State Senator Michael Frerichs, State Representative Chad Hays, Governor Pat Quinn and U.S. Congressman Timothy Johnson among others have been very supportive and helpful in attaining these accomplishments.

