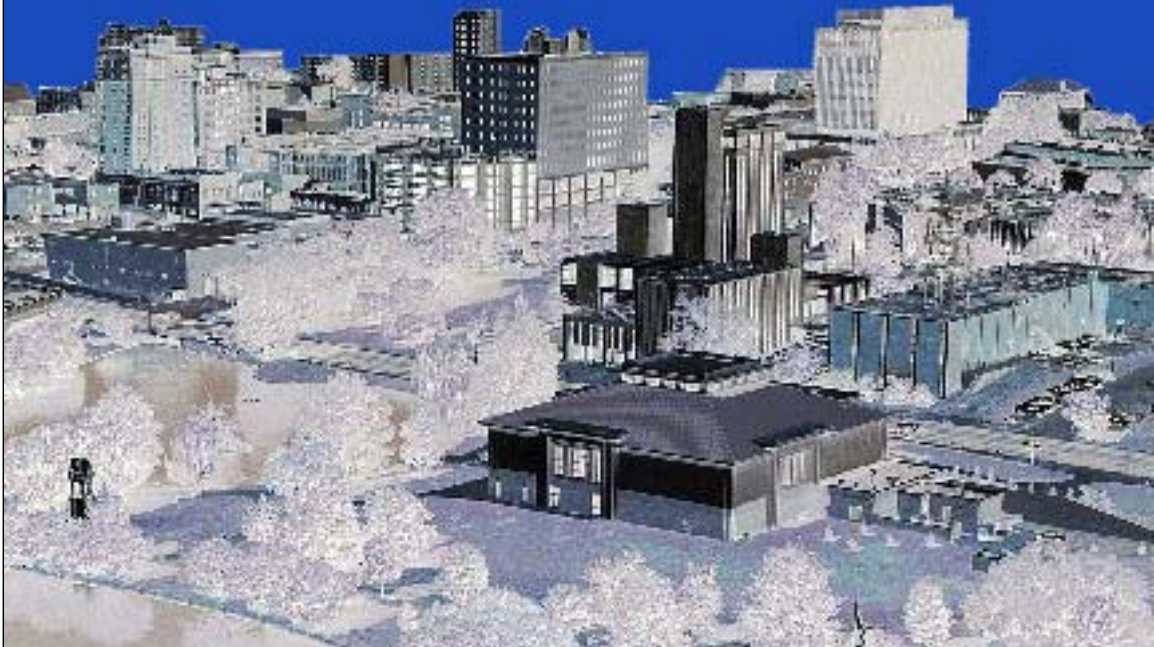


CITY OF HUNTSVILLE, ALABAMA

COMMUNITY INFORMATION

Prepared for Relocating
US Military/Government Personnel
and Contractors



Office of the Mayor
City of Huntsville, Alabama

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INTRODUCTION

The quality of life and public services available in the City of Huntsville is a major consideration of individuals and families deciding to make Huntsville their home. As our country's military reorganizes and transforms, it has located certain missions to areas where Department of Defense needs are met with highly qualified employees, the availability of a uniquely qualified imminent workforce, and a quality of life and public services in the surrounding communities that enable employees and families to flourish. This environment exists in the City of Huntsville.

The City of Huntsville's relationship with Redstone Arsenal spans over six decades. Throughout the years, the relationship has transitioned into a mutually reliant partnership to support the mission of the U.S. Army and the quality of life of the soldiers stationed here, affiliated DoD civilians, and their families.

This support is evident and obvious within the community. The community holds a large defense sector, yet a diverse and broadbased market of other industrial sectors.

The region also holds a valuable and unique resource: A concentration of a highly trained and educated workforce. Educational and research facilities, and governmental labs fuel innovation and creativity, as well as provide experience for the educated imminent workforce, who number over 5,100 in fields of computer science, mathematics, engineering, science, and physics.

Community leaders appreciate the dynamic research occurring in Huntsville, and have proactively planned for future growth and development. The community has in the past responded well to an influx of population based upon its relationship with Redstone Arsenal and NASA. The planning for imminent and future growth is evident in current housing construction and availability, as well as roadway and infrastructure improvements that have been constructed or are being constructed presently. The area's partnership with Redstone Arsenal has ensured that transportation projects to support accessibility to Redstone Arsenal are undertaken, and have been planned for the next five years in excess of \$211.8 million.

The partnerships extend further to the emergency response community. The City of Huntsville and its emergency response organizations have reciprocal aid agreements with Redstone Arsenal. Area emergency response groups train and exercise with each other to prepare for community and on-post emergencies requiring mutual aid response.

Finally, the City of Huntsville provides an exceptionally high quality of life through its museums, educational facilities, and cultural and recreational activities. All of these opportunities, when coupled with the area's affordable housing and low cost of living, provide a unique environment for families to prosper.

COMMUNITY OVERVIEW

Redstone Arsenal is located in Madison County, Alabama, adjacent to the City of Huntsville. Madison County is nestled between the Tennessee River and the Appalachian Mountains, and as such, provides a varied terrain of mountains and valleys, and holds valuable water resources. The area's climate is seasonal. The City of Huntsville has a population of 167,787 and the Huntsville Metropolitan Statistical Area (MSA) has a population of 342,376 persons; while the area's regional population consists of over 750,000 residents. The City of Huntsville tends to be family-oriented, with 66,742 households, and an average of 2.29 persons per household.

The City of Huntsville has been recognized by various leading publications and surveys as the premier place to rear a family, establish and grow a business, and to work. A sample of the city's recent headlines follow:

- *Manpower states that the Huntsville job market is expected to be among the best in the nation – Manpower, September 2005*
- *Huntsville was named one of the country's Top Metros for Business Opportunities – **Expansion Management Magazine**, July 2005*
- *Huntsville was named the 2nd most Cost Effective Community in the United States – **Foreign Direct Investment Magazine**, June 2005*
- *Huntsville was named as one of the country's leading Knowledge Worker Metros and one of America's Super Cities of the Future – **Expansion Management Magazine**, May 2005*
- *Huntsville was rated the country's 2nd best value for salaries and cost of living – **Salary.com**, May 2005*
- *Huntsville ranks as one of America's Top Business Cities - **Forbes Magazine** May 2005*
- *Huntsville was listed as the South's 2nd ranked Metro for Quality of Life – **Expansion Management Magazine**, March, 2005*
- *Huntsville ranks in Poplar Science's list of America's Top 50 Technology Hotspots – **Poplar Science**, March 2005*
- *The University of Alabama in Huntsville's graduate engineering management program was ranked best in the U.S. by the American Society of Engineering Management, January 2005*
- *Huntsville ranks 5th in the country for software-related employment – Software Information Industry Association, November 2004*
- *Huntsville leads the nation for the highest concentration of Inc. 500's fastest growing private companies – **Inc. Magazine**, October 2004*
- *Huntsville was chosen as the top city in the nation for "Best Places to Live for Black Americans" **Family Digest Magazine**, March 2003*

- *Huntsville was ranked number 4 on the list of “America’s Best Places to Live and Work” **Employment Review**, June 2003*
- *Huntsville was named among the nation’s hottest cities for manufacturing expansions and relocations - **Expansion Management Magazine**, January 2003*
- *NASA’s Marshall Space Flight Center, located in Huntsville, has been selected as the best place to work in federal government – **Partnership for Public Service**, November 2003*

Given the area’s national recognition for its quality of life and its attractiveness to business development and growth, it is easy to see why the City of Huntsville has dramatically grown over the years.

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CITY OF HUNTSVILLE ECONOMIC QUICK FACTS

The Tennessee Valley Region's economy is heavily dependent upon the continued presence of Redstone Arsenal. More than half of the jobs in Madison County are dependent upon federal defense and space activities. Three of ten jobs in Madison County alone were directly or indirectly dependent upon defense spending during 2002.

While the regional economy is heavily dependent upon defense and aerospace sector, the City of Huntsville's economy has diversified and has attracted major employers in the fields of manufacturing, telecommunications, electronics, software and IT development, and retail. The biotech sector is the area's latest emerging industry, and is expected to achieve tremendous growth. Area research parks and industrial parks were developed to promote and nurture this economic diversity.

Regional unemployment is low, due to the area's core economic stability and success of the defense sector, local businesses, and industries.

Employment in the Huntsville area is primarily in fields requiring a high degree of expertise and training. One of three employed persons residing in the City of Huntsville is employed in industries providing professional, scientific, and technical services. One in fourteen is employed in engineering and architectural occupations, and one in sixteen is working in computer and mathematical occupations.

Recent publications have reported that Huntsville is among the top ten in the nation for concentration of residents with college degrees. Educational attainment is very high in the metropolitan area, and is evidenced by the occupations that residents hold.

Income levels are very high when compared with other locations in the State of Alabama. The Huntsville metro area has a low cost of living, yet also has a highly educated workforce commanding competitive salaries in the East South East region.

The area's cost of living is among the lowest in the United States. A comparison of the Huntsville area's cost of living versus the wages required in other metropolitan areas to maintain one's current lifestyle was conducted. The cost of living differential between Huntsville, Alabama and Washington, D.C. is 36%. Huntsville residents moving to the Washington D.C. area would require a 36% increase in salary; conversely, persons moving from Washington, D.C. to Huntsville, Alabama would require 36% less income to maintain their current lifestyle. When salaries are compared, a government GS9, Step 5 DoD civilian makes only 2% more in wages in the Washington, D.C. area than in Huntsville, Alabama – making Huntsville an attractive place to live.

The cost of fire insurance and flood insurance is low, based upon initiatives taken by the City of Huntsville to maintain a high standard of public safety.

The financial stability of the Huntsville municipal government is strong, and is sustaining current services and infrastructure. Long-range financial plans are in place to construct capital improvements needed to accommodate growth of the city's population base. The city's economic success is based primarily upon Redstone Arsenal's continuing presence in the Tennessee Valley region, the expansion and diversification of local industry, and the city's relatively low unemployment rate.

The success of the local economy has encouraged major development and redevelopment by private interests to occur in the region. This tremendous investment in the local economy reflects a high level of confidence in the City of Huntsville's proactive planning for amenities and services that make these developments worthwhile.

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SECTION 1

CITY OF HUNTSVILLE ECONOMY

I. General Overview

The local economy is represented by various sectors of employment; however, the local defense sector is a major component of the city's economy.

II. Impact of Redstone Arsenal Activities on Local Economy

The Tennessee Valley's regional economy is significantly dependent upon the presence of Redstone Arsenal. An economic analysis of the impact of defense spending on the Huntsville-Madison County community was recently conducted by the University of Alabama in Huntsville. The study revealed the following facts:

- The defense sector directly employed 25,619 persons in Madison County during 2002. Of this figure, 13,049 were federal DoD employees and 12,750 were private employees who worked on DoD contracts during the year. Defense related employment comprised 14.9% of all wage and salary employment in Madison County during 2002.
- The defense sector generated 26.8% of total personal income in Madison County or nearly \$2.3 billion during 2002.
- Nearly three out of every ten jobs in Madison County alone was directly or indirectly dependent upon defense spending during 2002.
- The indirect impact of defense spending was responsible for an additional 25,075 jobs in other sectors of Madison County's economy. Adding these jobs to the number who were directly employed in the defense sector in 2002 gives a grand total of 50,694 jobs dependent on defense spending or 29.4% of all wage and salary jobs in the County.
- Defense spending directly or indirectly was responsible for generating 40 cents out of each dollar of personal income in Madison County during 2002.
- An assessment of personal taxes paid to Huntsville, Madison County, and the State of Alabama by local defense sector workers was estimated to be \$165.5 million during 2002. This number includes amounts paid by military retirees. Local defense sector workers contributed to the City of Huntsville's property and sales tax revenues in the amount of \$36.4 million. Local defense sector workers paid property and sales taxes to the City of Madison and Madison County in the amount of \$7.6 million. These workers also paid an additional \$121.5 million to the State of Alabama in sales, property, and personal income tax payments.

Additionally, once local NASA activities are considered, more than half of the jobs in Madison County are dependent upon federal defense and space activities.

At the present time, 61% of major sub-contractors or suppliers to local DoD prime contractors are located in Madison County. These subcontractors primarily supply parts and accessories or technical services to prime contractors located in the area. It is anticipated that the economic

impact of local defense spending and associated contracts will increase in the near future. Recently, several large defense contracts have been awarded to local companies, or are in process. These contracts may result in the employment of additional personnel and an increase of defense related funds flowing into our region.

Another direct economic impact related to Redstone Arsenal's presence in the community is the amount of federal research and development dollars that are poured into the region. According to the National Science Foundation (NSF), Alabama is ranked 5th in the United States for receiving the most federal research and development (R&D) funds. The NSF further states that the placement of Maryland, Washington D.C., and Virginia among the top receivers of federal R&D funds reflects the concentration of federal facilities and administrative offices within the national capital area. Alabama is ranked among the top five based upon the state's high shares of federal space and defense-related R&D.

III. Economic Diversity

A. Diversity of Various Industry Sectors

Economic diversity is a key consideration when co-locating with other family members to the City of Huntsville. While the city has gained from the economic benefits of its relationship with Redstone Arsenal, it has also experienced growth in other employment sectors. According to reports filed by the Alabama Development Office, the Huntsville-Madison County area has consistently led in the State of Alabama in the most new industrial job announcements. During the period from January 2004 to June 2005, Huntsville industrial companies announced the creation of 6,516 new jobs and approximately \$544 million of new capital investment.

The Huntsville area is represented by various industrial sectors, and has established Cummings Research Park and local industrial parks to nurture diversity in regional economic growth and development. Cummings Research Park is the 2nd largest research park in the United States, and 4th largest in the world. Its tenants include Fortune 500 companies, local and international high-tech enterprises, US Space and Defense agencies, a technology business incubator, technology-oriented high schools, and competitive higher education institutions. It is located approximately 5 minutes away from Redstone Arsenal and the City of Huntsville, and provides quick access to the Huntsville International Airport.

Diversity among industry classifications is prevalent in the area. The major employment sectors in the City of Huntsville have been identified that significantly impact the local economy:

1. Defense Industry Sector - Locations of local major defense industry employers are shown at **Map 1.1**.
2. Aerospace Industry Sector –This sector supports local NASA related activities; however, DoD contracts supported 53.3% of Huntsville's aerospace industry employees during 2002. Approximately 46% of aerospace firms in Huntsville had 90-100% of their workforce on DoD contracts during 2002. Most of the firms had total employment of less than 200. Locations of major aerospace employers are shown at **Map 1.2**.

3. Manufacturing Industry Sector – Huntsville’s manufacturing industry showcases a diverse mix of technology, assembly, and production operations from domestic and international corporations. Consumer products and durable goods are manufactured in each of the area’s primary industrial parks with customs and foreign trade zone benefits available at Huntsville International Airport for overseas trade. Major products include electronics, computers, VCRs, and compact discs. Major employers within this sector are shown at **Map 1.3**.
4. Telecommunications Industry Sector – The Huntsville community is the premier location for telecommunications technology and capabilities. Commercial applications developed by the growing number of telecommunications industry companies in the community range from digital switching devices to advanced modems and transmission products. Major employers within this sector, located in the City of Huntsville, are shown at **Map 1.4**.
5. Electronics Industry Sector – The Huntsville community is recognized as a world-class location for the electronics and computer industries. Over 300 international and domestic corporations in Huntsville are currently involved in the design and production of electronics and computer-related technology. SCI Systems, headquartered in Huntsville, is one of the world’s largest contract manufacturers in the electronics industry, while Intergraph Corporation, also a Huntsville start-up, is the industry leader in CAD/CAM computer technology. Locations of major electronic employers are shown at **Map 1.5**.
6. Software and IT Development Sector – According to **Site Selection Magazine** (March 2002), the City of Huntsville has been ranked as one of the top Cybercities in the USA. Huntsville is home to some of the largest and most successful software development corporations in the country. Of the larger companies with offices in this area, greater than 90% are ISO certified. Almost 60% of these companies are CMM (Capability Maturity Model) Certified at a Level 2 or higher, with the majority certified at Level 3 to Level 5. Adtran, Boeing, Computer Sciences Corporation, Dynetics, General Dynamics, Intergraph, Lockheed Martin, Northrop Grumman, Raytheon, Science Applications International Corp., Jacobs Sverdrup Technology, and Teledyne Brown Engineering are among the largest software development firms conducting business in the Huntsville metropolitan area. **Map 1.6** shows the location of the area’s major software and IT development companies.
7. Biotech Industry Sector – During 2003, three Huntsville companies opened a new biotechnology complex in Cummings Research Park, with a goal of creating a critical mass of biotechnology companies in the region. Currently, biotech companies in the area employ approximately 500 persons. Recently, an announcement was made regarding the creation of the Hudson-Alpha Institute for Biotechnology in Cummings Research Park. It will be a 120-acre bio-tech campus creating 500-600 jobs in Huntsville during 2007 and 2008. By the end of 2008, the Institute is expected to have an estimated annual payroll of \$37 million. Within ten years, the bio-tech industry in Huntsville’s Cummings Research Park is expected to employ 1,600 persons with a combined payroll of \$83 million.

8. Retail Sector - Huntsville's retail sector has grown tremendously during the past several years. Recently, approximately 2 million square feet of retail space has been renovated or newly constructed, providing residents and visitors to the area plenty of shopping options, and creating numerous jobs for area residents. During 2002, the Huntsville regional retail market reported an increase of retail sales of over \$629,000 from the previous year. It has been reported that the expanding local economy supports relatively high per capita effective buying income levels that exceed the State of Alabama by 40% and the nation by 19%. It is anticipated that retail sales will only increase as this sector is currently expanding and the local economy is thriving.

B. Diversity Through Business Opportunities with Minority-Owned Firms

The City of Huntsville and the Tennessee Valley Region not only has experienced economic diversity through various industry sectors, but has established a name for itself for having 70% of the State's top 50 minority firms represented in the North Alabama region. The City of Huntsville and the Tennessee Valley Region has numerous minority firms that are qualified and available to do business with government agencies and other public and private entities.

IV. Workforce Profile

This section provides an overview of the region's workforce by exploring unemployment, employment, income, level of education, and wages.

A. Unemployment

Huntsville metro unemployment is relatively low, and was 1.1% less than the U.S. average for 2004. Huntsville's low unemployment rate reflects the area's core economic stability of local businesses and industries, including the defense sector. A comparison of unemployment rates for certain metropolitan areas is provided.

**TABLE 1.1
COMPARISON OF ANNUAL UNEMPLOYMENT RATES
FOR SELECTED METROPOLITAN AREAS**

Metropolitan Area	Major Military Installation Nearby	Annual Unemployment Rate 2003	Annual Unemployment Rate 2004
Huntsville, AL MSA	Redstone Arsenal	4.7%	4.6%
Atlanta, GA MSA	Ft. Gillem	4.8%	4.6%
Macon, GA MSA	Warner-Robins Air Force Base	4.7%	4.9%
Dothan, AL MSA	Ft. Rucker	4.9%	4.7%
Washington DC	Ft. Belvoir/Others	3.9%	3.7%
United States	N/A	5.9%	5.5%

Source: US Bureau of Labor Statistics

(Metropolitan Statistical Areas and Primary Metropolitan Statistical Areas are defined by the US Office of Management and Budget and include appropriate metro areas with military installations).

B. Employment

An assessment of the city's civilian employed population, aged 16 and above, was conducted. Results revealed that Huntsville residents comprise a large number of professional, technical, and highly trained occupations. Statistics concerning occupational categories available from the US Census Bureau indicate the following:

- 1 out of 3 employed persons residing in the City of Huntsville is employed in fields of professional, scientific, and technical services. The U.S. Census Bureau indicates that occupations falling in this category require a high degree of expertise and training.
- 1 out of every 14 persons residing in the City of Huntsville is employed in architectural or engineering occupations.
- 1 out of every 16 persons residing in the City of Huntsville is employed in computer and mathematical occupations.
- 1 out of every 16 employed persons residing in the City of Huntsville is employed in education, training, and library occupations.

Additional information gathered from a recent study conducted by local economists indicates that during 2002, 58% of DoD contract employees work in engineering, science, or mathematics disciplines. This is an increase from 47.1% recorded in 1993. **Software and Information Industry Magazine** also reports that Huntsville ranks 5th in the nation for concentration of computer software-related workers.

The Huntsville metropolitan area ranks well above the national average in these specialized fields, and ranks confidently with other metropolitan areas with similar military installations. **Table 1.2** shows comparative data.

TABLE 1.2
EMPLOYMENT BY INDUSTRY AND OCCUPATION FOR SELECTED METROPOLITAN AREAS

Metropolitan Area	Major Military Installation Nearby	% Employed in Professional, Scientific, & Technical Services	% Employed in Computer & Mathematical Occupations	% Employed in Architecture & Engineering Occupations	% Employed in Education, Training, and Library Occupations
Huntsville, AL MSA	Redstone Arsenal	8.6%	5.4%	6.5%	5.7%
Atlanta, GA MSA	Ft. Gillem	8.4%	3.9%	2.1%	5.4%
Dothan, AL MSA	Ft. Rucker	2.6%	1%	1.6%	5.5%
Macon, GA MSA	Warner-Robins Air Force Base	3.8%	1.8%	2.2%	5.9%
Washington DC	Ft. Belvoir/Others	13.5%	7.0%	2.4%	7.0%
United States	N/A	5.8%	2.4%	2%	5.7%

Source: 2000 Census SF 3 Data, US Census Bureau
(Metropolitan Statistical Areas and Primary Metropolitan Statistical Areas are defined by the US Office of Management and Budget and include appropriate metro areas with military installations).

C. Educational Demographics

The Huntsville metropolitan area boasts a well-educated workforce, as can be verified by the density of professional employees residing in the area. Based upon the latest Census figures, the Huntsville metropolitan statistical area reports 21% of its population over the age of 25 has a bachelors degree, 7.9% have obtained a masters degree, and 1.2% of residents over the age of 25 possess doctorates. A comparative analysis of educational attainment was conducted among selected metropolitan areas. The Huntsville metropolitan area ranks high in terms of educational attainment of its population, as shown at **Table 1.3** and **Table 1.4**.

TABLE 1.3
PERCENTAGE OF EDUCATIONAL ATTAINMENT OF THE POPULATION
FOR SELECTED METROPOLITAN AREAS - HIGH SCHOOL TO UNDERGRADUATE DEGREES

Metropolitan Area	Major Military Installation Nearby	High School Graduates 25 Years of Age +	Some College, One or More Years, No Degree	Associates Degree	Bachelors Degree
Huntsville, AL MSA	Redstone Arsenal	24%	15.7%	5.9%	21%
Atlanta, GA MSA	Ft. Gillem	24.3%	15.2%	5.7%	21.6%
Dothan, AL MSA	Ft. Rucker	30%	15.3%	6.9%	11.2%
Macon, GA MSA	Warner-Robins Air Force Base	33%	13.9%	5.2%	12.2%
Washington DC	Ft. Belvoir/Others	21%	13.1%	5%	23%
United States	N/A	28.6%	13.9%	6.3%	15.5%

Source: 2000 Census SF 3 Data, US Census Bureau

(Metropolitan Statistical Areas and Primary Metropolitan Statistical Areas are defined by the US Office of Management and Budget and include appropriate metro areas with military installations).

TABLE 1.4
PERCENTAGE OF EDUCATIONAL ATTAINMENT OF THE POPULATION
FOR SELECTED METROPOLITAN AREAS - MASTERS DEGREES TO DOCTORATE DEGREES

Metropolitan Area	Major Military Installation Nearby	Masters Degrees	Professional School Degree	Doctorate Degrees
Huntsville, AL MSA	Redstone Arsenal	7.9%	1.3%	1.2%
Atlanta, GA MSA	Ft. Gillem	7.2%	2.3%	1%
Dothan, AL MSA	Ft. Rucker	3.9%	1.3%	.43%
Macon, GA MSA	Warner-Robins Air Force Base	5%	1.6%	.7%
Washington DC	Ft. Belvoir/Others	12.3%	3.9%	2.5%
United States	N/A	5.9%	1.9%	.96%

Source: 2000 Census SF 3 Data, US Census Bureau

(Metropolitan Statistical Areas and Primary Metropolitan Statistical Areas are defined by the US Office of Management and Budget and include appropriate metro areas with military installations).

D. Regional Income

The Huntsville area is a State leader when it comes to income. The latest U.S. Census information reveals that the median income of residents in the Huntsville metropolitan area is \$52,248 while per capita income is \$22,073. The area's income levels are very high when compared to the rest of Alabama based upon the education of the workforce and the concentration of professional and highly technical personnel in the area. When income comparisons are made among other metropolitan areas (**Table 1.5**), the Huntsville metropolitan area is moderately high in the categories of median and per

capita income. Additionally, one must consider the cost of wages and the cost of living for each area. Metropolitan areas with higher income levels tend to have a much higher cost of living. The Huntsville metropolitan area has a relatively low cost of labor and a low cost of living, yet a highly educated workforce commanding competitive salaries for the East Southeast region.

TABLE 1.5
COMPARISON OF MEDIAN AND PER CAPITA INCOME
FOR SELECTED METROPOLITAN AREAS

Metropolitan Area	Major Military Installation Nearby	Median Income	Per Capita Income
Huntsville, AL MSA	Redstone Arsenal	\$52,248	\$22,073
Atlanta, GA MSA	Ft. Gillem	\$59,313	\$25,033
Dothan, AL MSA	Ft. Rucker	\$40,898	\$17,780
Macon, GA MSA	Warner-Robins Air Force Base	\$46,279	\$18,840
Washington DC	Ft. Belvoir/Others	\$72,247	\$30,350
United States	N/A	\$41,994	\$21,587

Source: 2000 Census SF3 Data, US Census Bureau

(Metropolitan Statistical Areas and Primary Metropolitan Statistical Areas are defined by the US Office of Management and Budget and include appropriate metro areas with military installations).

E. Wages

The cost of labor in the Huntsville regional market is competitive and higher than the national average. The most recent hourly wage information has been gathered from the U.S. Bureau of Labor Statistics. A comparative cost of wages can be drawn from other metropolitan areas. A selection of various technical, professional, and office occupations are compared at **Table 1.6**, **Table 1.7**, and **Table 1.8**.

TABLE 1.6
HOURLY WAGES FOR SPECIFIC TECHNICAL OCCUPATIONS
SELECTED METROPOLITAN AREAS

Metropolitan Area	Major Military Installation Nearby	Electrical & Electronic Engineers	Mathematical & Computer Scientists	Computer Programmers
Huntsville, AL MSA	Redstone Arsenal	\$35.25	\$34.23	\$44.14
Atlanta, GA MSA	Ft. Gillem	\$35.52	\$31.59	\$37.18
Dothan, AL MSA	Ft. Rucker	\$30.80	\$22.97	\$22.49
Macon, GA MSA	Warner-Robins Air Force Base	\$30.45	\$27.31	\$26.23
Washington DC	Ft. Belvoir/Others	\$36.36	\$35.20	\$33.26
United States	N/A	\$35.68	\$31.50	\$31.69

Source: National Compensation Survey, US Bureau of Labor Statistics (May 2004)

(Metropolitan Statistical Areas, Primary Metropolitan Statistical Areas, and Census Regions and Divisions are defined by the US Office of Management and Budget and include appropriate metro areas with military installations).

TABLE 1.7
HOURLY WAGES FOR SPECIFIC PROFESSIONAL OCCUPATIONS
SELECTED METROPOLITAN AREAS

Metropolitan Area	Major Military Installation Nearby	Physicians (Family Practice)	Accountants & Auditors
Huntsville, AL MSA	Redstone Arsenal	\$69.12	\$24.15
Atlanta, GA MSA	Ft. Gillem	\$75.56	\$25.87
Dothan, AL	Ft. Rucker	*\$92.89	\$21.37
Macon, GA MSA	Warner-Robins Air Force Base	\$67.94	\$23.09
Washington DC	Ft. Belvoir/Others	\$51.52	\$30.93
United States	N/A	\$66.58	\$27.35

Source: National Compensation Survey, US Bureau of Labor Statistics (May 2004)
(Metropolitan Statistical Areas, Primary Metropolitan Statistical Areas, and Census Regions and Divisions are defined by the US Office of Management and Budget and include appropriate metro areas with military installations).
**This number is higher because data includes all physicians, not separated by specialty.*

TABLE 1.8
HOURLY WAGES FOR SPECIFIC OFFICE OCCUPATIONS
SELECTED METROPOLITAN AREAS

Metropolitan Area	Major Military Installation Nearby	Supervisors, General Office	Secretaries	Receptionists
Huntsville, AL MSA	Redstone Arsenal	\$19.76	\$12.02	\$9.75
Atlanta, GA MSA	Ft. Gillem	\$21.06	\$13.08	\$11.14
Dothan, AL MSA	Ft. Rucker	\$17.53	\$10.85	\$9.35
Macon, GA MSA	Warner-Robins Air Force Base	\$19.25	\$11.71	\$9.55
Washington DC	Ft. Belvoir/Others	\$26.88	\$16.53	\$12.25
United States	N/A	\$21.15	\$13.06	\$10.91

Source: National Compensation Survey, US Bureau of Labor Statistics, May 2004
(Metropolitan Statistical Areas, Primary Metropolitan Statistical Areas, and Census Regions and Divisions are defined by the US Census Bureau and include appropriate metro areas with military installations).

The cost of wages for military personnel employed at Redstone Arsenal may appear to be relatively low when compared to the Washington, D.C. and Atlanta, Georgia area, but higher when compared to the national average. However, when the cost of living is considered, wages are considerably higher and provide newcomers more buying power for their money. Civilian personnel receive salaries based upon "Locality Pay." There are 32 Locality Pay regions across the country with "base pay" multipliers ranging from 0% to 21%. Redstone Arsenal is located in one of the least costly regions. **Table 1.9** provides a comparison of January 2005 wages for a GS9, Step 5 civilian employee for several areas of the United States, including Limestone and Madison Counties, Alabama.

TABLE 1.9
COMPARISON OF GS9, STEP 5 DoD CIVILIAN WAGES
AMONG OTHER LOCATIONS

<u>Area</u>	<u>Annual Pay for GS9, Step 5</u>
Rest of the United States	\$47,340
Huntsville (Limestone & Madison Co), AL	47,637
Washington, DC-Baltimore, MD	49,145
Atlanta, GA	48,251

V. Cost of Living

The cost of living in the Huntsville metropolitan area is among the lowest in the United States. This section will detail the overall cost of living composite index among other metropolitan areas, show increased salary requirements for moving from Huntsville to other selected metropolitan areas, and provide an overview of the area's cost for items not included in the overall composite score, such as sales tax and insurance.

A. Cost of Living Composite Index

An assessment of the Composite Cost of Living Index was conducted. The Composite Cost of Living Index wraps the cost of grocery items, housing, utilities, transportation, healthcare, and miscellaneous goods and services into one overall category. Each subcategory is weighted appropriately to determine the composite index. A comparison was drawn between the Huntsville metropolitan area and other selected locations (refer to **Table 1.10**). The Huntsville metropolitan area still maintains a low cost of living when this comparison is made.

TABLE 1.10
COST OF LIVING COMPOSITE INDEX
COMPARISON OF SELECTED METROPOLITAN AREAS

Metropolitan Area	Major Military Installation Nearby	Composite Cost of Living Index
Huntsville, AL Metro	Redstone Arsenal	93.1
Atlanta, GA MSA	Ft. Gillem	97.3
Dothan, AL MSA	Ft. Rucker	Data not available
Macon, GA MSA	Warner-Robins Air Force Base	Data not available
Washington – Arlington-Alexandria DC-VA	Ft. Belvoir/Others	141.7
United States	N/A	100

Source: ACCRA Cost of Living Index: Comparative Data for 307 Urban Areas, 2nd Quarter 2005

B. Cost of Living Versus Earnings

Once cost of living is considered, earnings must be substantially more in some larger metropolitan areas to maintain an acceptable standard of living. An evaluation of wages versus cost of living was conducted. The Huntsville metropolitan area was compared with other metropolitan areas. It was determined that in many cases wages paid in other metropolitan areas must be considerably higher than wages paid in Huntsville, in order to maintain an employee's current standard of living.

If Huntsville metro area residents move to an area with a higher cost of living, salary levels must increase to maintain the individual's current standard of living. It was determined that:

- Huntsville metro residents moving to the Washington-Arlington-Alexandria DC-VA metro area will require a 36% increase in after-taxes income to maintain their present lifestyle.

- Huntsville metro residents moving to the Atlanta, Georgia metro area will require a 7% increase in after-taxes income to maintain their present lifestyle.

When comparing the wages of a GS9, Step 5 DoD Civilian, it is determined that the employee in Washington, D.C. earns about 3% more than their counterpart in Huntsville; yet when cost of living is considered, it costs 36% less to live in Huntsville. The same classification of employee in Atlanta, Georgia earns over 1% more than their counterpart in Huntsville; yet it costs 7% less to live in Huntsville than in the Atlanta metro area. Washington, D.C. and Atlanta area residents relocating to the Huntsville metro area can afford an adjustment in salary while maintaining a very high quality of life. The overall cost of living and wage differentials required to maintain a comparable standard of living, make the Huntsville metro area a desirable place to live.

C. Cost of Living - Other Items

The cost of other items not included in the Cost of Living Composite Index was compiled.

Income taxes in the State of Alabama have been historically low. A chart depicting levels of taxation at the State and local level is included at **Table 1.11** as follows:

TABLE 1.11 STATE AND LOCAL TAX RATES	
Sales Tax	
City of Huntsville:	8%
Property Tax	
City of Huntsville:	\$5.80 per \$100 assessed value
Income Tax	
Local:	There are no local income taxes
<u>State of Alabama:</u>	
<i>For single persons, heads of families, & married persons filing separate returns:</i>	
2% on First \$500 of taxable income	
4% on Next \$2,500 of taxable income	
5% on All taxable income over \$3,000	
<i>For married persons filing a joint return:</i>	
2% on First \$1,000 of taxable income	
4% on Next \$5,000 of taxable income	
5% on All taxable income over \$6,000	

The cost of fire insurance varies per insurance company selected. Each municipality and rural area within Madison County has been assigned a public protection classification. The City of Huntsville currently has a public protection classification rating of 3. The highest public protection classification rating is 1, with the lowest classification being 10. Needless to say, lower public protection classification ratings typically yield lower fire insurance rates. Consultation with local insurance companies must be done, as coverage rates vary depending upon the type of structure covered.

The cost of flood insurance varies throughout the region as well; however, residents of the City of Huntsville purchasing flood insurance receive a special price break. The City of Huntsville was recently designated a “Class 7” through the Community Rating System. This designation results in a 15% reduction in flood insurance premiums. The 2,159 Huntsville policyholders saved approximately \$161,179.15 in premium reductions during 2004. There are almost 20,000 National Flood Insurance Program communities in the U.S. Of those communities, only 0.4% have a better rating than Huntsville. The City of Huntsville is currently working toward improving their rating even more - to a “Class 6” - which would result in additional benefits to the community.

VI. Financial Outlook of Local Economy

The Huntsville economy is strong, is sustaining current municipal services and infrastructure, and has long-range financial plans in place to construct capital improvements needed to accommodate growth of the city’s population base. The area’s economic success is based primarily on Redstone Arsenal’s continuing presence in the Tennessee Valley Region, the expansion and diversification of local industry, and the area’s relatively low unemployment rate. An overview of the past financial performance and the financial outlook of the City of Huntsville is provided.

A. Economic Performance - A Current View City of Huntsville

Most of Huntsville’s operations are financed by the General Fund. During fiscal year 2004, the City of Huntsville reported General Fund Revenues at \$171.4 million. General Fund Revenues for Huntsville during fiscal year 2005 were estimated at \$179.6 million, reflecting a growth rate of 4.8%. This included a 5% and 7% growth in sales taxes and property taxes, respectively, which together account for 65% of recurring revenues. The City of Huntsville’s total revenue growth was 5% during fiscal year 2005. The projected total revenue growth rate for 2006 is estimated at 8%. Growth rates are strong indicators of local economic conditions and business strength, especially during the challenging economic climate of the past several years.

Another strong indicator of city fiscal health and economic strength are the credit ratings received on five debt issues in the past year. Standard and Poor’s assigned Huntsville a bond rating of AA+, and Moody’s Investors Services rates the City as Aa2. The City of Huntsville is recognized as the highest rated city in Alabama from both entities. Its high ratings are primarily attributable to the stable job market anchored by Redstone and high wealth levels associated with the local educated and high-tech workforce.

B. Planned Improvements to Accommodate a Growing Population

The City of Huntsville has financial plans in place to accommodate future population growth and the additional amenities required to maintain appropriate levels of service. The City of Huntsville has a Capital Improvements Plan (CIP) in place covering a time period of ten years. The City's CIP lists planned capital improvement projects per scheduled year, and attaches specific monetary amounts and funding sources to each project. The CIP details specific projects related to road improvements, drainage, traffic improvements, sidewalks, educational facilities, economic development, and public safety, as well as upgrades and construction of community and recreational facilities. The City of Huntsville has planned improvements for the next ten years in excess of \$303 million. This proactive planning of future projects to enhance the community's quality of life is a testament to the area's dedication to anticipated growth and development.

VII. Current Economic Development Initiatives

The area's history of supporting the growth and development of its economy, coupled with the proactive planning for infrastructure improvements to support such growth, has greatly driven local economic development initiatives. The City of Huntsville has been recognized as the primary economic hub of the northern Alabama and southern Tennessee region. This recognition, as well as the area's success in past economic development initiatives, has caused investors to develop in the City of Huntsville.

During the past several years, an international industry and a multitude of developers have announced major development and redevelopment projects in the area. A brief overview of current economic development projects is provided as follows:

**TABLE 1.12
CURRENT ECONOMIC DEVELOPMENT AND EXPANSION**

Project	Size	Target Market
North Huntsville Industrial Park Expansion	49 sites	Manufacturing Expansion, Eco-friendly expansion of current industrial park
World Famous Bridge Street	100 acres	Class-A Office space, residential, hotel with conference center, destination and service retail, childcare, recreation
Embassy Suites Hotel	300 suites	Convention Hotel
Big Spring Summit, Phase 1	75,000 square feet	Class-A Office Space and restaurant
*Big Spring Summit, Phase 2	31,400 square feet	Potential mixed-use facility
301 East	6 story, 25-units	Retail and upscale condominiums
Hudson-Alpha Institute for Biotechnology	120 acres	Bio-Tech Campus at Cummings Research Park

*Project is planned for future development

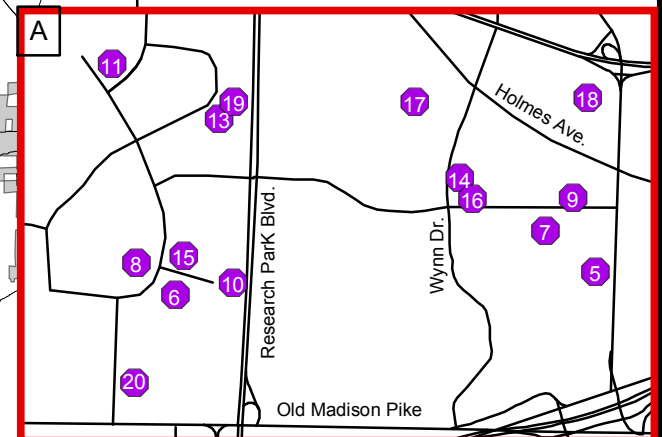
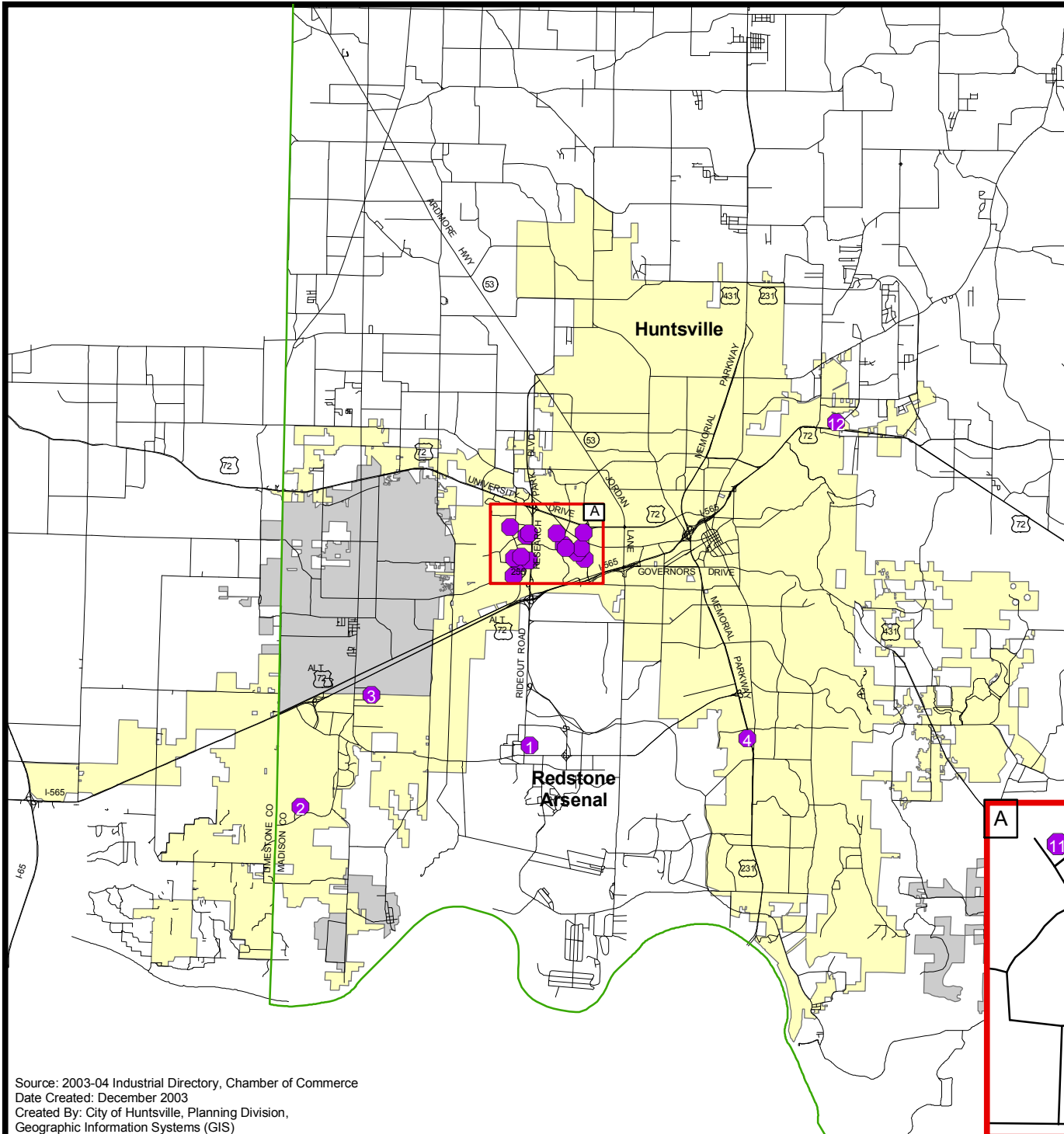
The initiative of developers to invest in the region represents good faith in the solidity of the municipal government's economy, and faith in local government's commitment to proactively plan for amenities and services that make these developments worthwhile.

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Map 1.1 Major Defense Employers in the City of Huntsville

● Defense Industries

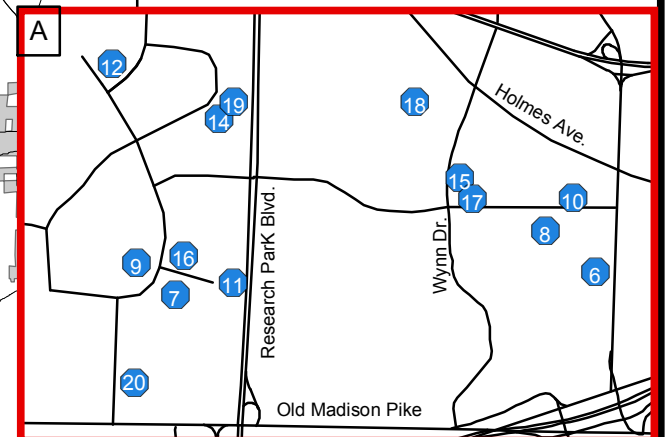
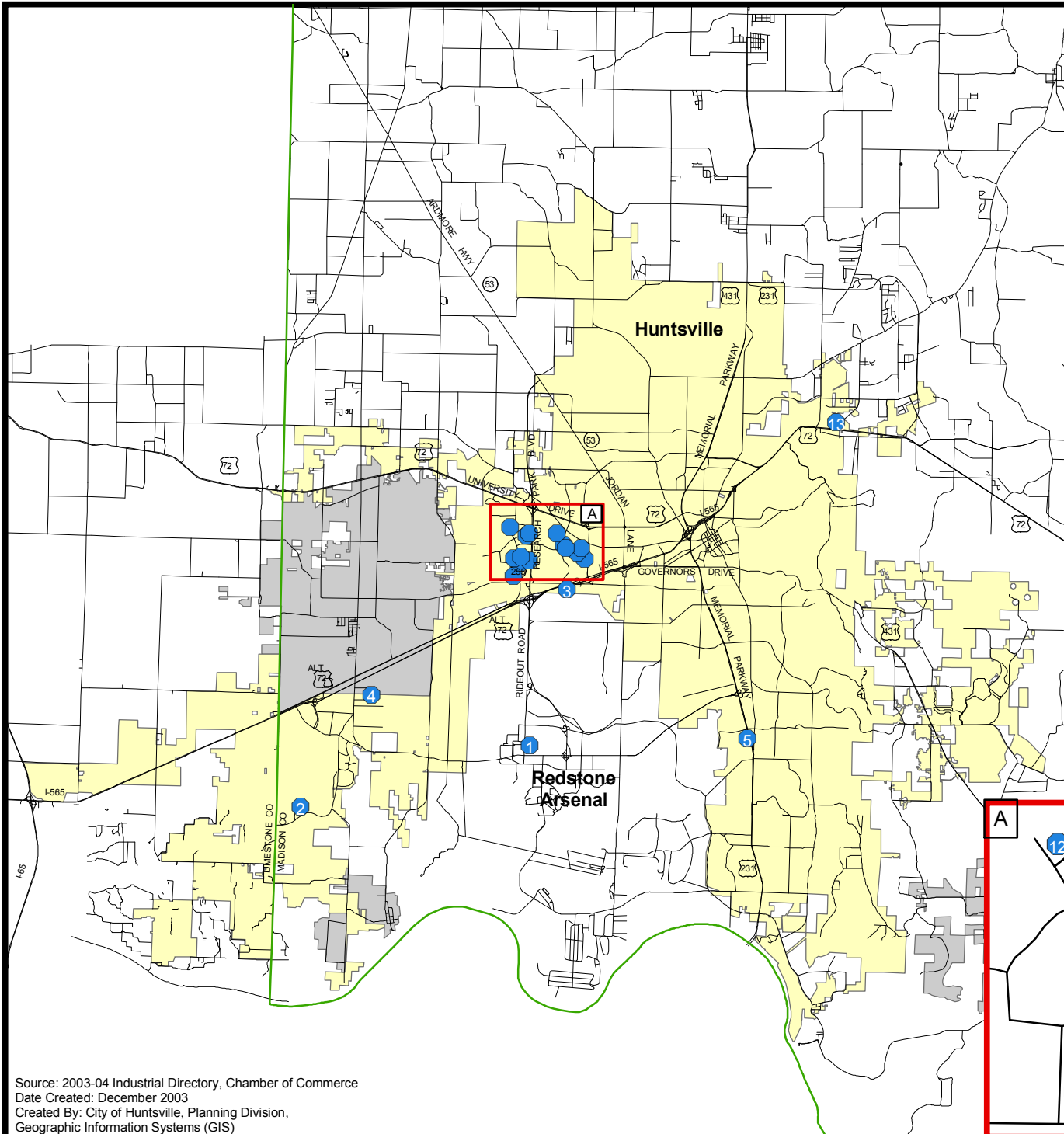
ID	Company Name	Employees
1	Redstone Arsenal/U.S. Army	11141
2	The Boeing Company	3000
3	Intergraph Corporation	1750
4	Sanmina-SCI Corporation	1700
5	Teledyne Brown Engineering	1338
6	Science Applications International Corporation	1080
7	Benchmark Electronics Inc.	921
8	Northrop Grumman	870
9	Lockheed Martin	830
10	Jacobs Sverdrup Technolgy, Inc.	800
11	Dynetics, Inc.	600
12	PPG Industries, Inc.	550
13	CAS, Inc.	502
14	Raytheon Systems Company	466
15	COLSA Corporation	432
16	Amtec Corporation	375
17	Sparta, Inc.	274
18	ERC, Inc.	270
19	SY Coleman	250
20	BAE Systems	270



Map 1.2 Major Aerospace Employers in the City of Huntsville

● Aerospace Industries

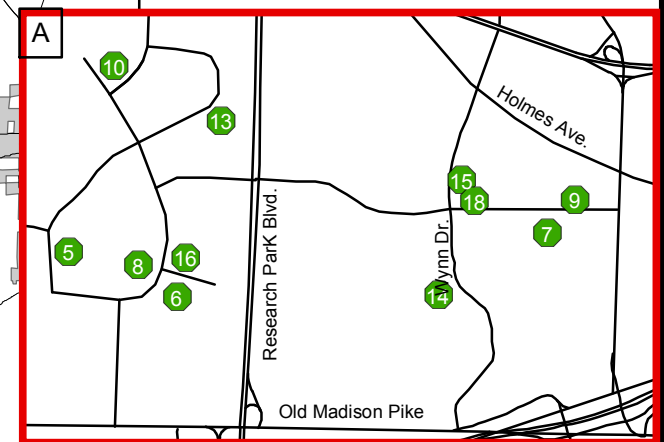
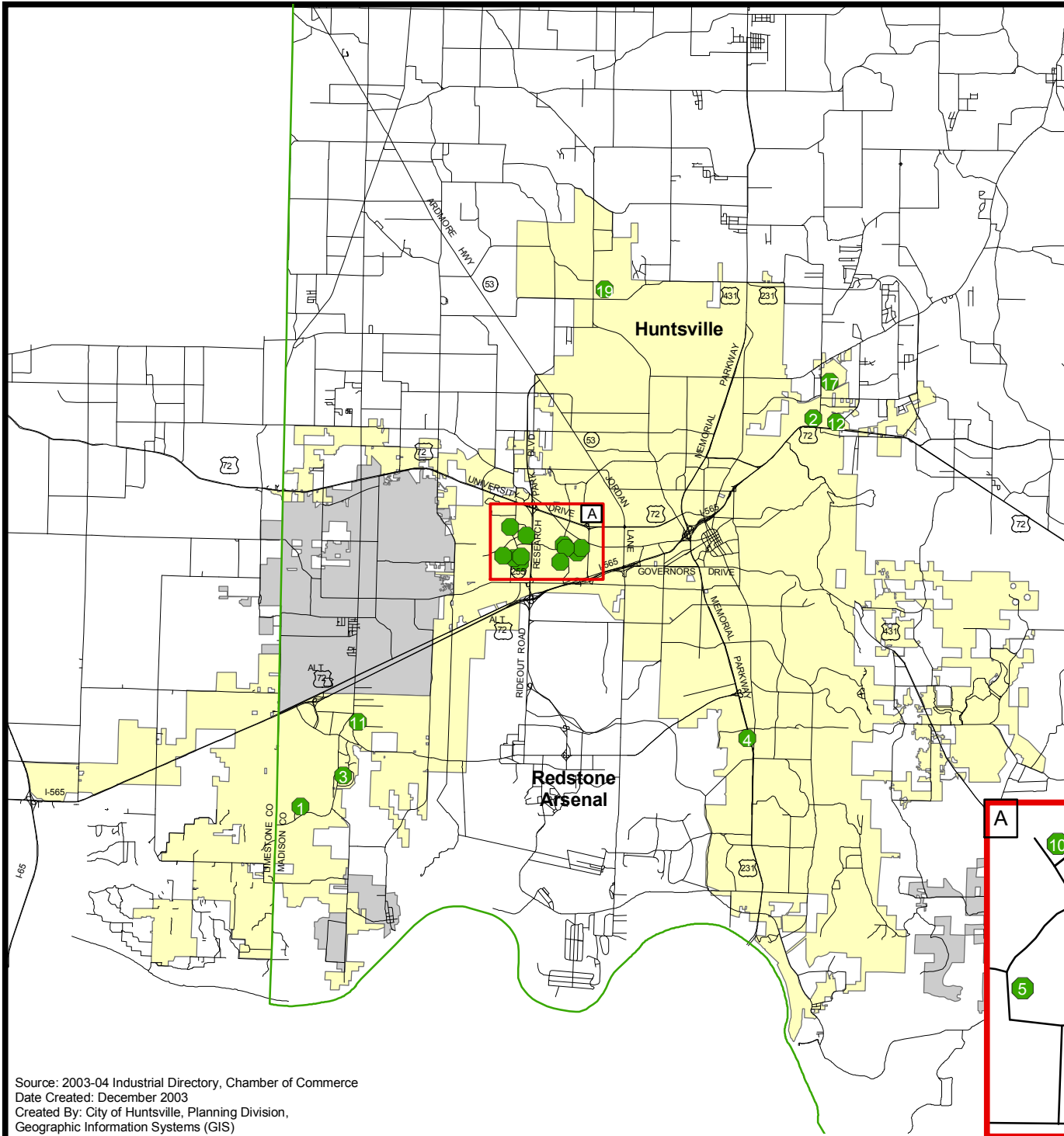
ID	Company Name	Employees
1	Redstone Arsenal/U.S. Army	11141
2	The Boeing Company	3000
3	NASA/Marshall Space Flight Center	2754
4	Intergraph Corporation	1750
5	Sanmina-SCI Corporation	1700
6	Teledyne Brown Engineering	1338
7	Science Applications International Corporation	1080
8	Benchmark Electronics Inc.	921
9	Northrop Grumman	870
10	Lockheed Martin	830
11	Jacobs Sverdrup Technology, Inc.	800
12	Dynetics, Inc.	600
13	PPG Industries, Inc.	550
14	CAS, Inc.	502
15	Raytheon Systems Company	466
16	COLSA Corporation	432
17	Amtec Corporation	375
18	Sparta, Inc.	274
19	SY Coleman	250
20	BAE Systems	270

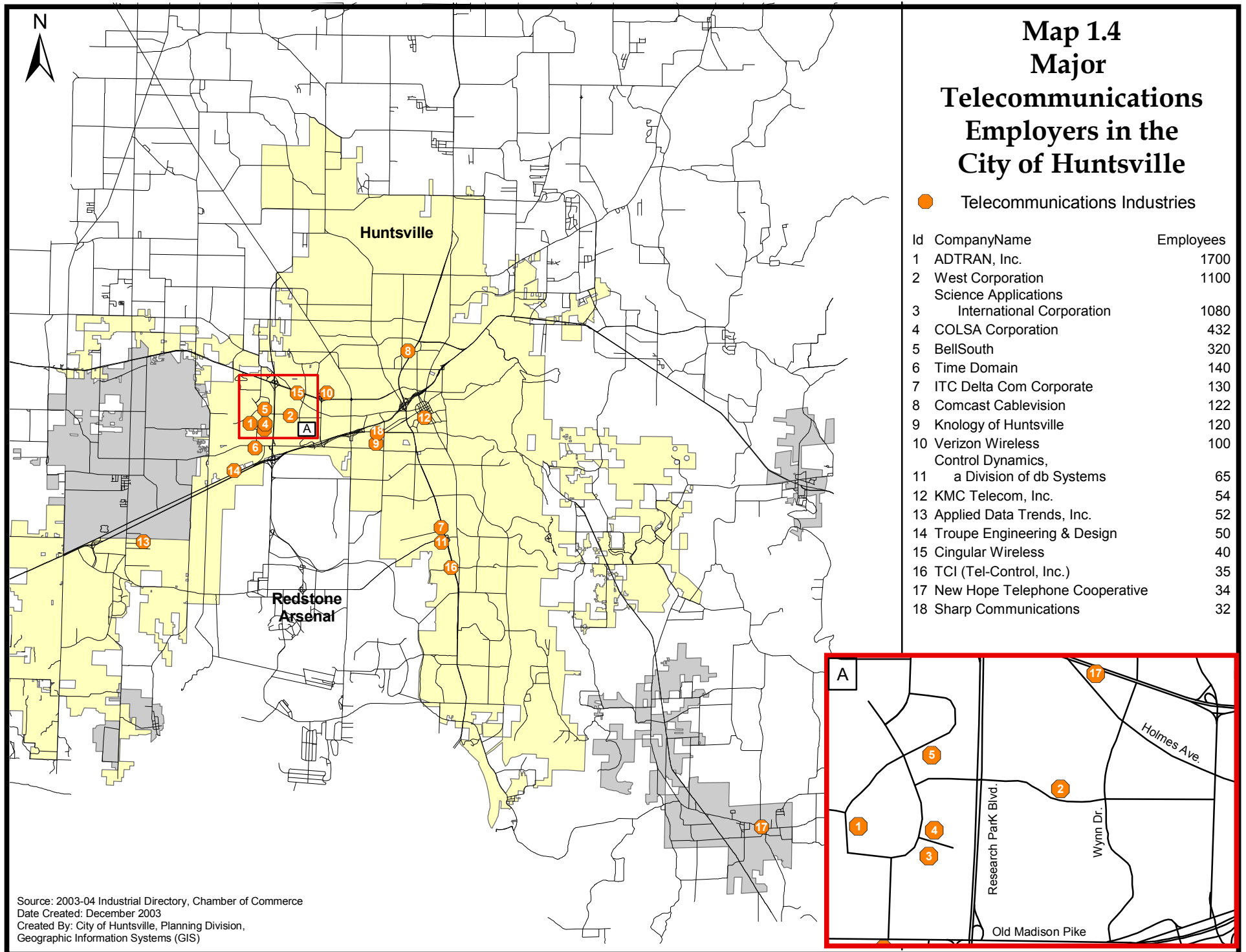


Map 1.3 Major Manufacturing Employers in the City of Huntsville

● Manufacturing Industries

ID	Company Name	Employees
1	The Boeing Company	3000
2	Cinram International, Inc.	2800
3	DaimlerChrysler Corporation	2500
4	Sanmina-SCI Corporation	1700
5	ADTRAN, Inc.	1700
6	Science Applications International Corporation	1080
7	Benchmark Electronics Inc.	921
8	Northrop Grumman	870
9	Lockheed Martin	830
10	Dynetics, Inc.	600
11	Engelhard Corporation	600
12	PPG Industries, Inc.	550
13	CAS, Inc.	502
14	PEI Electronics, Inc.	500
15	Raytheon Systems Company	466
16	COLSA Corporation	432
17	Vintage Pharmaceuticals	394
18	Amtec Corporation	375
19	Totota Motor Manufacturing Alabama, Inc.	350

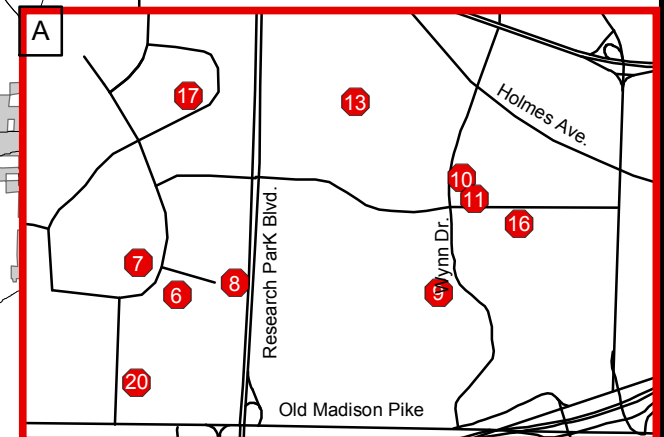
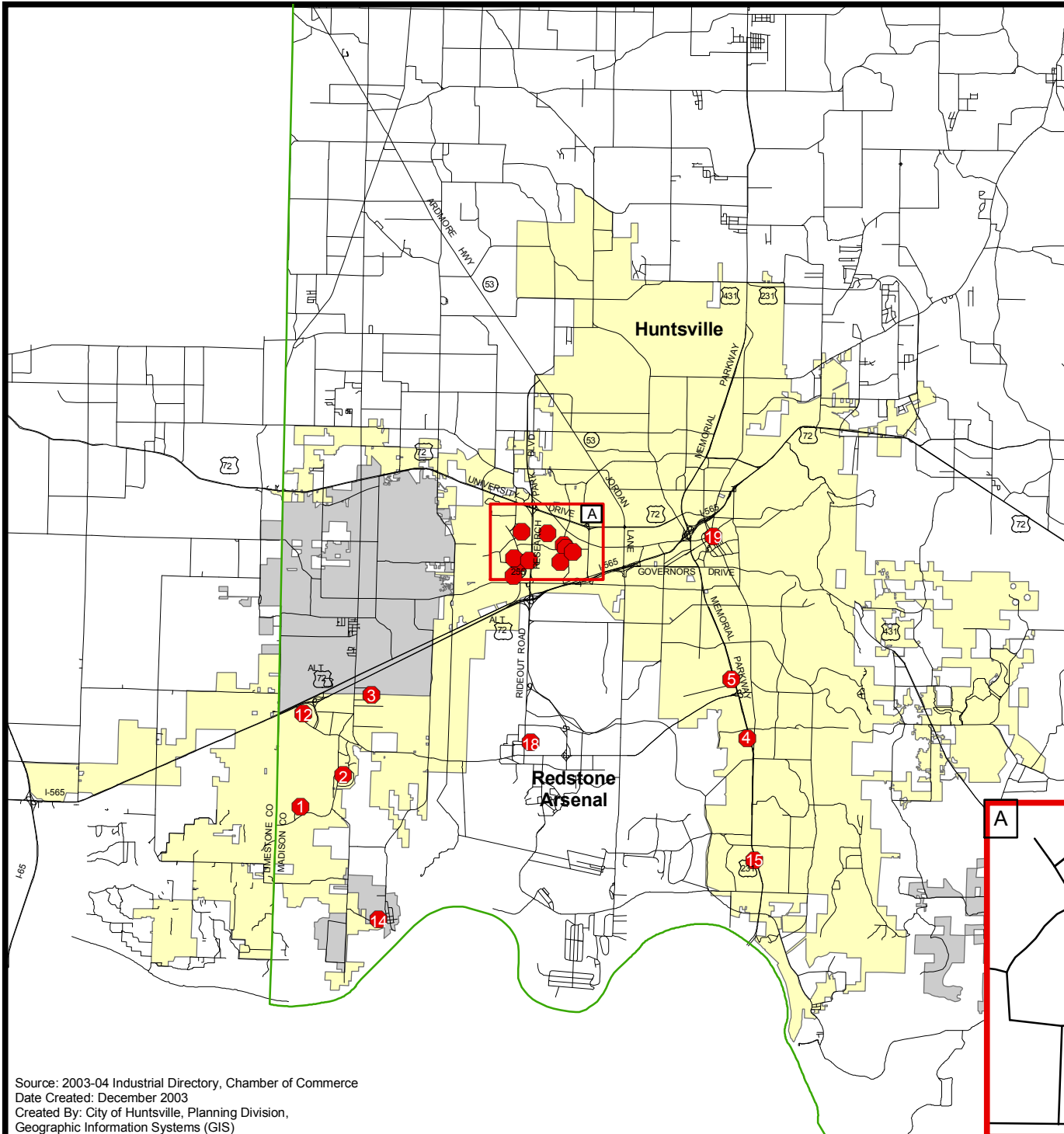




Map 1.5 Major Electronics Employers in the City of Huntsville

● Electronics Industries

ID	Company Name	Employees
1	The Boeing Company	3000
2	DaimlerChrysler Corporation	2500
3	Intergraph Corporation	1750
4	Sanmina-SCI Corporation	1700
5	Computer Sciences Corporation	1200
6	Science Applications International Corporation	1080
7	Northrop Grumman	870
8	Jacobs Sverdrup Technolgy, Inc.	800
9	PEI Electronics, Inc.	500
10	Raytheon Systems Company	466
11	Amtec Corporation	375
12	LG Electronics Alabama, Inc.	350
13	Avocent Corporation	260
14	Triana Industries Inc.	250
15	VMIC	236
16	Morgan Research Corporation	225
17	Camber Corporation	220
18	Cortez, Inc.	220
19	SIRSI Corporation	200
20	BAE Systems	270

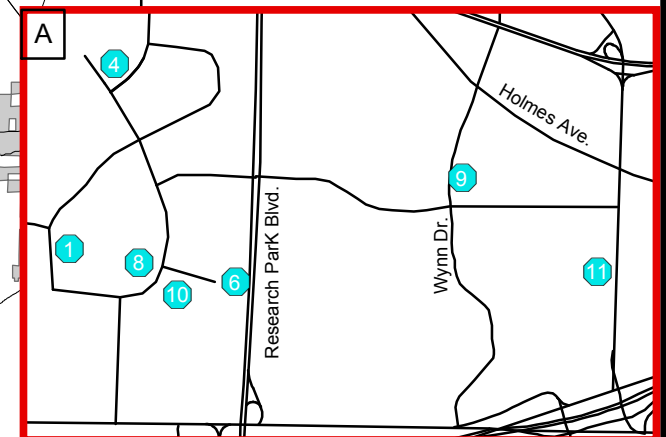
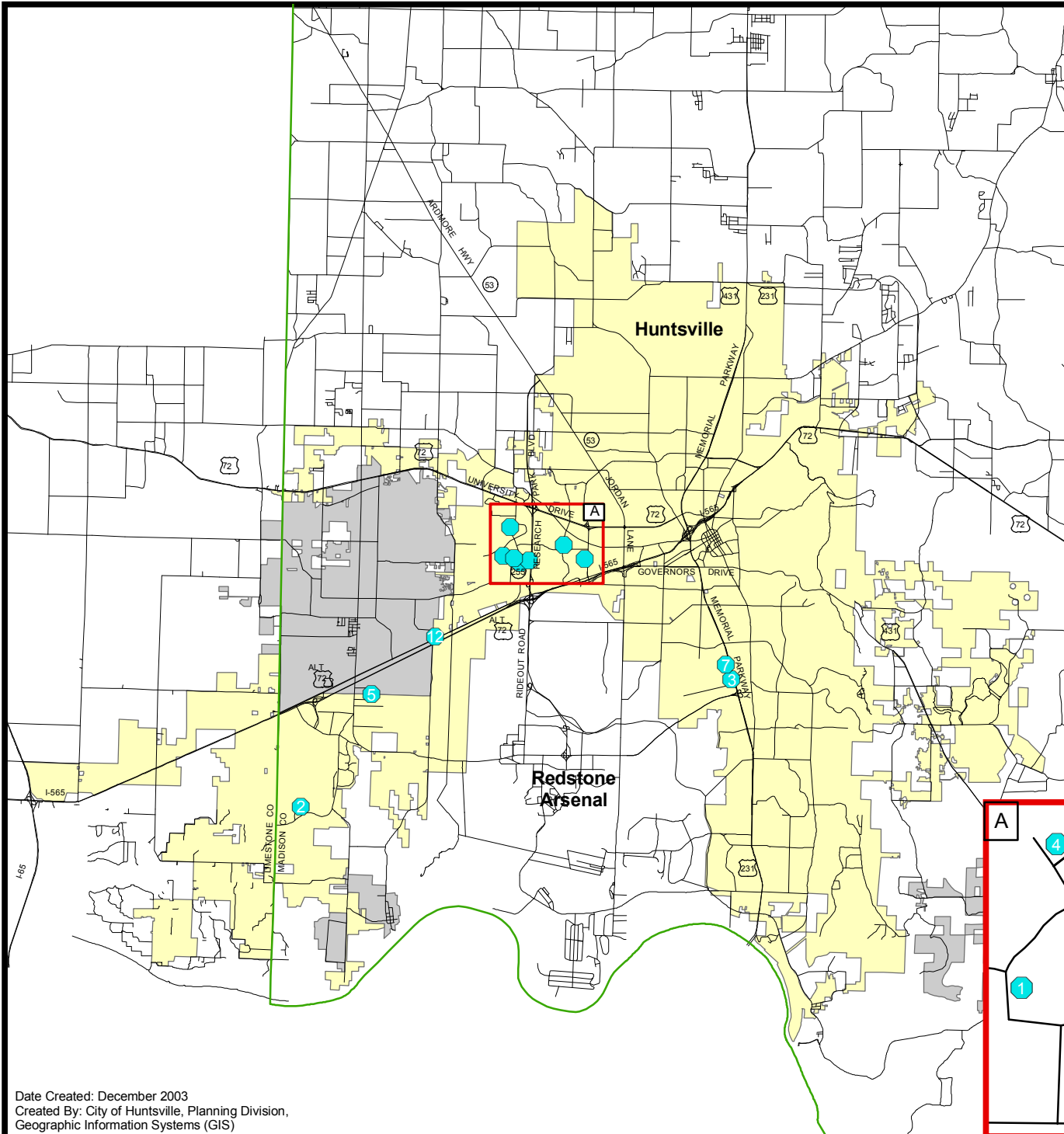


Map 1.6 Major Software Development and IT Employers in the City of Huntsville

● Software Companies

ID Company Name

1	Adtran, Inc	1700
2	The Boeing Company	3000
3	Computer Sciences Corporation	1200
4	Dynetics, Inc.	600
5	Intergraph Corporation	1750
6	Jacobs Sverdrup Technolgy, Inc.	540
7	Lockheed Martin Information Systems	150
8	Northrop Grumman Mission Systems	517
9	Raytheon Systems Company	466
10	Science Applications International Corporation	574
11	Teledyne Brown Engineering	1338
12	Wyle Laboratories, Inc.	185



CITY OF HUNTSVILLE HOUSING CHARACTERISTICS AND AVAILABILITY QUICK FACTS

A variety of high quality and affordable housing is readily available to a relocating population.

The City of Huntsville has, in coordination with the State of Alabama, financed the construction of three houses for the three Commanders residing at Redstone Arsenal. This \$1,050,000 project replaced 1950s era housing.

Housing on-post for soldiers and their families is in the process of being renovated, with additional units being constructed. This effort is being pursued through a pilot program, being evaluated by the Department of Defense, which privatizes this process.

Persons seeking residence within the community will find that housing and rents are very affordable, especially when compared to other major metropolitan areas.

Housing availability is not an issue. Over 3,000 housing units are on the local market for sale. Additionally, during the past two years, developers have just prepared subdivisions or are in the process of preparing subdivisions for new housing construction in the City of Huntsville. From the time period between January 1, 2003 and October 31, 2005, developers have either built infrastructure for new subdivisions or are in the process of building infrastructure for new subdivisions in the City of Huntsville. The number of lots within these subdivisions that have been prepared or are being prepared for housing construction total 5,144. Also, infrastructure is being built for the construction of several apartment complexes, with a combined total of 254 units. Layout plans approved for major subdivisions during January 1, 2003 to October 31, 2005 will provide an additional 6,437 residential lots for future construction.

Many new subdivisions are developed around specialized amenities that encourage a high quality of life, such as clubhouses, built-in recreational facilities, neighborhood shopping, and other offerings. Many established subdivisions have active community or civic organizations that work with community leaders to ensure that a high quality of life is maintained.

Retirement housing is available to those wishing to stay in the region. Various options in senior living are available, from senior apartments, continuing care, assisted living, to skilled nursing care. These housing options are important to those retiring in place, as well as those relocating with elderly family members.

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SECTION 2
CITY OF HUNTSVILLE
HOUSING CHARACTERISTICS AND AVAILABILITY

I. General Overview

One major concern when deciding to relocate persons to another area is the immediate availability of quality and affordable housing. This is not a problem within the City of Huntsville. An evaluation of local housing availability and affordability shows that these issues should not pose a concern. Typically, soldiers stationed at Redstone Arsenal have on-post housing available to them, while DoD civilians live within the community. A variety of housing resources in the community have either been constructed or are in the process of being constructed.

II. On-Post Housing

The City of Huntsville has provided support to improve the quality of housing available on-post. The City of Huntsville, in coordination with the State of Alabama, took unprecedented action during 2003 and provided financing for the construction of three houses on-post for the three commanding officers: the Commanding General of Redstone Arsenal, the General of PEO Aviation, and the General of PEO Tactical Missiles. A total of \$1,050,000 was invested for the construction of these homes that replaced the previous 1950s era housing. Actual construction and project management was handled by the Huntsville-Madison County Homebuilders Association. Construction was completed during the fall of 2003.

III. Huntsville Area Housing

A. General Characteristics

According to the US Census Bureau, 71% of area residents are homeowners. Approximately 70% of the housing inventory in the Huntsville metropolitan area consists of single-family detached units, and an average house will have 6 rooms. Persons relocating to the Huntsville area will find that housing is readily available and affordable. They will also find a quality of small-town community and desirable amenities within a bustling metropolitan area.

B. Affordability

According to the 2000 Census, the median value of housing in the Huntsville metro area is \$99,300, and the median value of monthly rent payments is \$393. Comparisons of the median housing and rent costs among selected metropolitan areas was conducted, and are shown at **Table 3.1** and **Table 3.2**. These comparisons reveal that in some locations, housing costs up to 80% more and rents cost up to 92% more than in the Huntsville metropolitan area. In fact, housing in the Huntsville metropolitan area is among the most affordable in the State of Alabama. According to the Alabama Real Estate Research and Education Center of the University of Alabama, the Statewide housing affordability index was reported at 165.7 during the second quarter of 2005, with the Huntsville metropolitan area's index reported at 218.3. The housing affordability index is calculated as a ratio of

the State's or metropolitan area's actual median income to the income needed to purchase and finance the State's or metropolitan area's median priced home. An index number of 100 means that a family earning at median income levels has just enough buying power to qualify for a mortgage loan on a median priced home. The higher the index number, the more affordable the housing. Second quarter statistics provided by the Alabama Real Estate Research and Education Center indicate that as of June 2005, the median income for the Huntsville metropolitan area was \$61,250 and the median sales price for housing was \$124,256. The Huntsville metropolitan area's housing affordability index number of 218.3 means that local families earning the area's median income have well over twice the income needed to qualify for a loan on a metro area median-priced home. In other words, a family earning the Huntsville metropolitan area's median income could qualify for and purchase a home valued at \$271,251.¹

TABLE 2.1
MEDIAN COST OF HOUSING
FOR SELECTED METROPOLITAN AREAS

Metropolitan Area	Major Military Installation Nearby	Median Value of Housing
Huntsville, AL MSA	Redstone Arsenal	\$99,300
Atlanta, GA MSA	Ft. Gillem	\$135,300
Dothan, AL MSA	Ft. Rucker	\$77,500
Macon, GA MSA	Warner-Robins Air Force Base	\$86,100
Washington DC	Ft. Belvoir/Others	\$178,900
United States	N/A	\$119,600

Source: 2000 Census SF3 Data, U.S. Census Bureau
(Metropolitan Statistical Areas, Primary Metropolitan Statistical Areas, and Census Regions and Divisions are defined by the US Census Bureau and include appropriate metro areas with military installations).

TABLE 2.2
MEDIAN COST OF RENT
FOR SELECTED METROPOLITAN AREAS

Metropolitan Area	Major Military Installation Nearby	Median Contract Rent
Huntsville, AL MSA	Redstone Arsenal	\$393
Atlanta, GA MSA	Ft. Gillem	\$644
Dothan, AL MSA	Ft. Rucker	\$309
Macon, GA MSA	Warner-Robins Air Force Base	\$391
Washington DC	Ft. Belvoir/Others	\$755
United States	N/A	\$519

Source: 2000 Census SF3 Data, U.S. Census Bureau
(Metropolitan Statistical Areas, Primary Metropolitan Statistical Areas, and Census Regions and Divisions are defined by the US Census Bureau and include appropriate metro areas with military installations).

¹These numbers are based upon the latest quarterly figures available from the Alabama Real Estate Business Research and Education Center, University of Alabama.

C. Availability

According to the Huntsville-Madison County Board of Realtors, approximately 3,999 homes in the Huntsville metropolitan area were on the market during the month of September 2005. The yearly average of homes on the market in the area during 2004 totaled 3,861. This trend of housing availability has been noticed since the close of 2002.

Not only are there homes currently available to support a relocating population, but new home construction is offered as an option as well. The City of Huntsville is experiencing a home construction boom. Developers are actively preparing subdivisions and lots for new construction to begin. A count was taken of all residential preliminary or final subdivisions that have been approved by the City of Huntsville Planning Commission between January 1, 2003 through October 31, 2005. The assessment revealed that a total of 5,144 lots were being prepared for new housing construction (refer to **Map 2.1**). Additionally, several apartment complexes yielding a total of 254 units are currently under development. Layout plans for major subdivisions have been approved during this same time period, providing for an additional 6,437 residential lots for future home construction.

D. Quality of Community

Many of the new subdivisions that have been constructed or are in process of being constructed provide amenities beyond just the proximity of neighborhood schools. The current trend is toward total planned communities that include amenities such as walking trails, lakes, parks, clubhouses, swimming pools, tennis facilities, and in some instances golf courses, restaurants, and specialty stores. These communities encourage and provide amenities for a balanced lifestyle.

Many established communities have active community or civic organizations that proactively interact with local elected officials and city/county agencies to ensure that a high quality of life and high standards of services are maintained within neighborhoods.

IV. Retirement Housing

Many persons employed at Redstone Arsenal fall in love with the Tennessee Valley Region, and choose not to leave upon retirement. According to the latest estimates, Redstone Arsenal reports that approximately 150,000 retirees and their families reside in the North Alabama area. To serve the housing needs of an aging population, various residential amenities are available that cater specifically to retirees in place, as well as older persons that may be relocating with family members to the Huntsville metropolitan area. Full-service continuing care communities, assisted living facilities, senior apartments, and nursing homes are prevalent.

A. Continuing Care Communities

The concept of continuing care is new to the area. These facilities provide all aspects of senior living to its residents, from independent living to 24-hour nursing care. Currently, Carlton Cove (www.carltoncove.com) is the provider of these services in the Huntsville community. At Carlton Cove, residents can live in apartments, duplexes, or single family homes. As health care needs change, residents can take advantage of the Carrington Health Center, an on-site state-of-the-art health center that provides for short-term or

long-term assisted living and skilled nursing care. Residents are provided with home maintenance, weekly maid service, yard service, and various dining options. Other specialized amenities are available as well.

Redstone Village (www.redstonevillage.org) is another continuing care facility that is open to retirees. The development caters directly to military retirees, their spouses, and widows. Redstone Village is a specialized retirement community providing high-quality housing options and service. The community offers spacious one- and two-bedroom apartments, cottages, and patio homes, and on-site long-term care if necessary. Residents are provided with numerous services to include housekeeping, restaurant-style dining, banking and postal services, home maintenance, transportation, as well as security monitoring. Other amenities are available such as a business center/computer room with internet access, a library, lounge, creative arts studio, severe weather shelters, and a fitness center with state-of-the art equipment. This development was supported locally by the Redstone Military Retirement Residence Association and Board of Directors, which is led by U.S. Army, Major General George E. Turnmeyer, a past Commander of Redstone Arsenal.

B. Independent and Assisted Living Communities

Huntsville is also home to another innovative retirement development: Somerby at Jones Farm (www.arclp.com). Somerby provides independent living garden homes and apartment homes, as well as assisted living. The amenities available at the complex foster an environment of independence, while services provided make residents comfortable in requesting assistance when needed. The property offers on-site banking, a convenience shop, beauty and barber shop, full-service dining, library, and scheduled transportation.

C. Assisted Living Facilities and Nursing Homes

Various assisted living facilities and nursing homes are located in the Huntsville metro area. These facilities provide for limited independent living to 24-hour full-service skilled nursing care. Very few of these facilities have web sites. A listing of available web sites for these properties are as follows:

Agape Manor

Carlton Cove (www.carltoncove.com)

Edenbrook of Huntsville

Floyd E. "Tutt" Fann State Veterans Home (www.va.state.al.us/homes.htm)

Redstone Village (www.redstonevillage.org)

Somerby at Jones Farm (www.arclp.com/)

The Village at Wyndham Park (www.wyndhamparkvillage.com/)

D. Senior Apartments

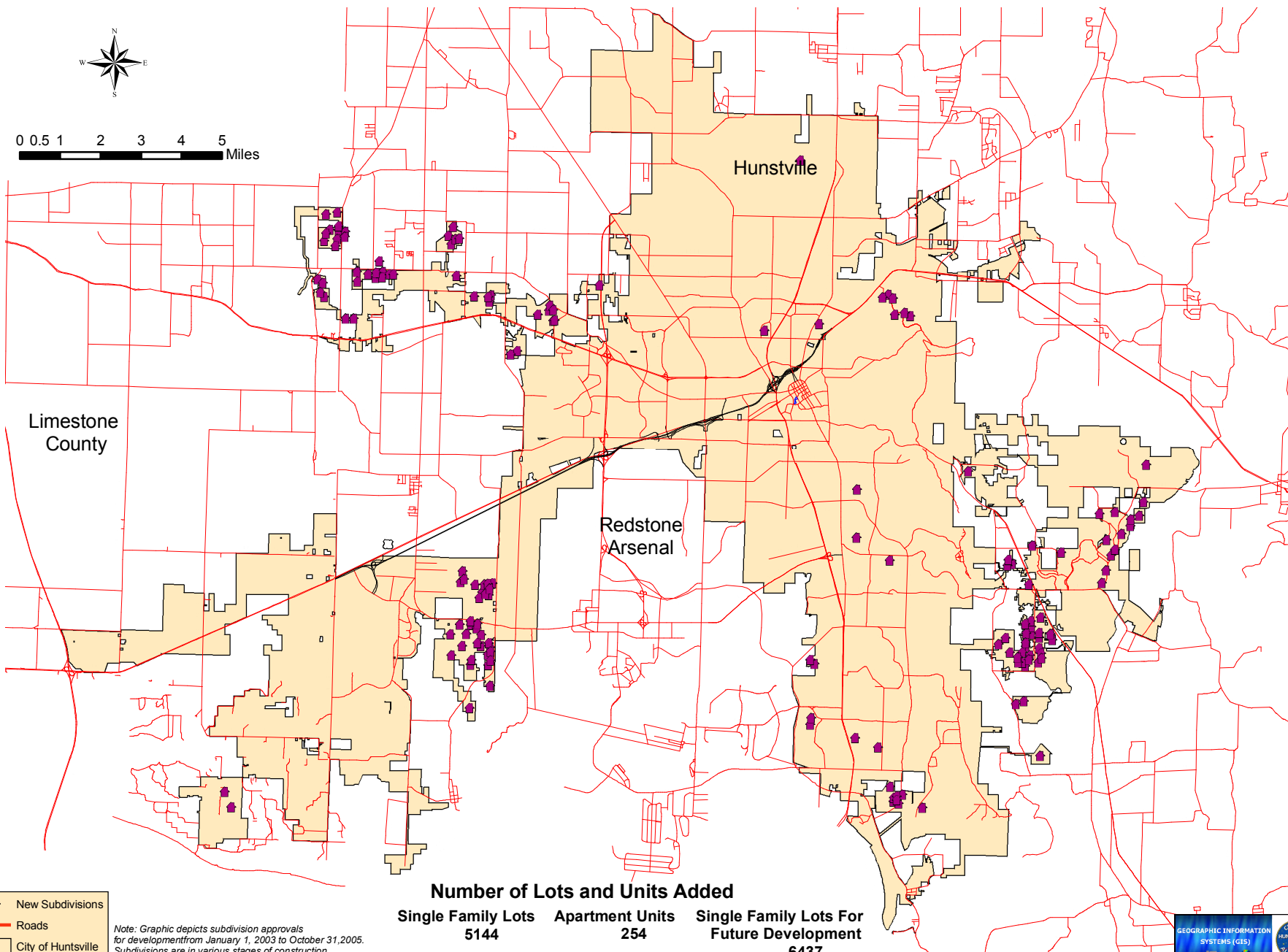
Senior apartments are also prevalent in the Huntsville-Madison County area. Twelve independent living apartment complexes provide housing exclusively for senior residents. Valley Garden Apartments, located in Huntsville, tends to have residents of all ages with a primary senior population.

A variety of housing options to meet all needs, is available to accommodate an increase of population within the Huntsville-Madison County area. Needed housing improvements either have been made on-post, or are in the process of beginning. Selections available off-post are indeed affordable, and include existing housing, construction of new housing on available lots, and apartments. Given the trend that Redstone Arsenal personnel typically remain in the area after retirement, varied housing options that cater directly to the senior population as well as specifically to military retirees are prevalent.

Map 2.1 **Major New Subdivision Developments in the City of Huntsville** **January 1, 2003-October 31, 2005**



0 0.5 1 2 3 4 5 Miles



CITY OF HUNTSVILLE INFRASTRUCTURE AND ENVIRONMENT QUICK FACTS

An expanding local infrastructure and high environmental quality exists in the area to support a growing population.

Past transportation planning and road improvement projects have provided for an increase in overall mobility of the population along the area's transportation network. Road construction projects and associated engineering design and right-of-way acquisition completed since 1990 account for more than \$711 million in federal, state, and local investments. Additionally, maintaining existing infrastructure is vital. The City of Huntsville has invested over \$14.8 million in road resurfacing projects since 2001. While all projects served to increase mobility system-wide, several projects had a direct and positive impact on commuters to Redstone Arsenal.

Transportation projects currently under construction cost in excess of \$40.4 million. Planned improvements for fiscal year 2006-2010 reflect total funding commitments from federal, state, and local officials in excess of \$446.5 million. From that amount, over \$211million (or 47%) has been committed to roadway improvements that would directly provide access to Redstone Arsenal, or consists of projects located directly on Arsenal property.

Long range transportation projects have been identified, and some projects would provide improved access to Redstone Arsenal employees using Gate 7 as their entryway on-post.

Public transit services are available in the City of Huntsville through a fixed route system and a demand response service.

The Huntsville International Airport-Port of Huntsville provides commercial airline service and operates an International Intermodal Center and the Jetplex Industrial Park. Nine daily non-stop flights are available to Washington, DC. The Airport supports Redstone Arsenal through mutual aid agreements for emergencies and has assisted both Redstone Arsenal and NASA with the transport of special shipments. Additionally, the Airport has been used as an alternate field of operation when the Redstone Airfield has been closed for construction or maintenance work.

Other supporting infrastructure in the community has been constructed with a built-in capacity to expand for a growing population. Many organizations are currently expanding their services and service area. Examples are sewer services and other utilities. The City of Huntsville has recently invested \$88.6 million in sewer and drainage improvements to support its growing population.

The Huntsville area has a high reliability rate for uninterruptable power services. The Tennessee Valley Authority, the area's electrical supplier, has a 99.999% reliability rate.

The Huntsville area has tremendous wireless networks and the proven capability to support major technological resources.

Environmental quality in the area is good. Several City of Huntsville agencies serve in environmental protection roles.

Partnerships among state agencies, private watershed protection organizations, and the Tennessee Valley Authority exist to insure that regional water quality is good.

Huntsville meets all federal air quality standards. The U.S. Environmental Protection Agency has classified the area to be at attainment.

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SECTION 3 **CITY OF HUNTSVILLE** **INFRASTRUCTURE AND ENVIRONMENT**

I. General Overview

The City of Huntsville has adequate infrastructure and a high environmental quality to support its current residents, as well as an increase in population. Municipal departments and agencies have short-term and long-term plans in place to pursue various improvement projects to support a growing population. These departments and agencies are working continually and diligently in planning and constructing improvements, while at the same time preserving the environmental integrity of the community. The local government's commitment to provide an adequate infrastructure to support a growing population, and in providing a clean environment for residents to live, is evident in the financial and management support that these initiatives receive.

II. Transportation

Almost every large community has complex problems with transportation issues. This is not the case with the Huntsville community. The City of Huntsville generally has effectively performing roadway networks. Community leaders have made, and are continuing to make, tremendous investments in the local transportation infrastructure as well as public transit systems. These investments positively impact the region with increased mobility on the local transportation network.

A. Current Roadway Networks

Current roadway networks are generally performing well. Multi-dimensional reviews of the area's transportation network have been conducted through comprehensive transportation studies to determine system mobility.

1. State of the System

When current network accessibility is examined, performance is found to be outstanding. Network accessibility has been measured by referring to transportation related statistics available from the US Census Bureau. Conclusions have been drawn from data presented in the Huntsville Planning Division's "Journey to Work" publications, which measure commuting patterns countywide. Both the 1990 and 2000 versions of the publication were consulted. The statistics available in these reports are the measure of choice, since most peak-time travel is work-related, and most roadway congestion typically occurs during this time.

a. County-Wide Accessibility

Upon evaluating the available statistics, it was determined that overall congestion in the area is not extreme and network accessibility is acceptable. Under free flow conditions, persons can typically commute from one end of the county to the other in about 30 to 40 minutes. **Table**

3.1, which follows, shows some comparisons of Journey to Work Data between 1990 and 2000.

TABLE 3.1
YEAR 1990 vs. YEAR 2000
LOCAL JOURNEY to WORK STATISTICS

Location	% Drove Alone		% In Carpools		% Using Public Transit		% Using Other Means		% Walked or Worked at Home		Average Travel Time (Minutes)	
	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000
Alabama	79%	83%	15%	12.3%	1%	.5%	1%	.9%	4%	3.4%	N/A	24.8
Huntsville	83.2%	83.8%	11.8%	11.2%	.4%	.5%	.8%	.7%	3.7%	3.9%	20.0	18.0

Source: US Census Bureau and City of Huntsville Planning Division

The most noted change in review of commuting characteristics is the increase of single vehicles accessing the network. Even with an increase in the number of vehicles using the transportation network, the mean travel time to work decreased in the City of Huntsville by 2 minutes during 2000. Contributing to this improvement is no doubt the construction of Interstate-565 and other regional road widening and construction projects that were completed between 1990 and 2000.

A countywide analysis of commuter patterns shows that the number of commuters increased in 2000 by 9.2%, yet commuters experienced a decrease in travel time to work in most subareas or communities. A comparison of total commuters is shown at **Figure 3.1**, and a breakdown of travel time per subarea is displayed at **Table 3.2**.

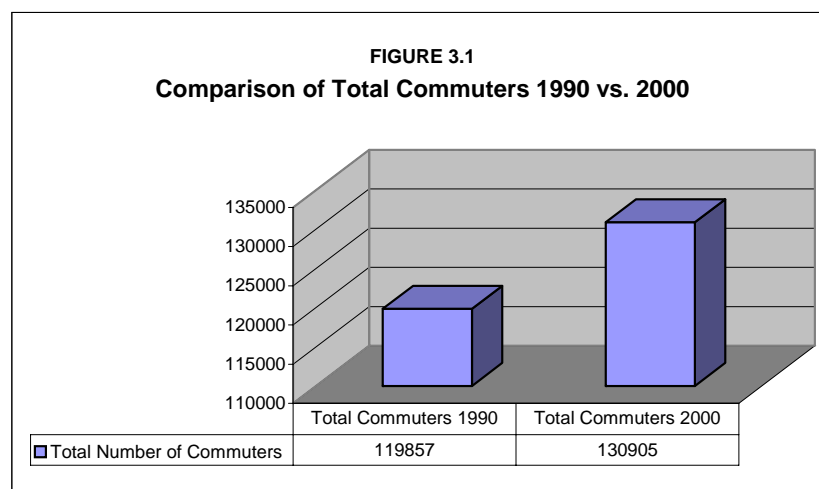


TABLE 3.2
COMPARISON OF TRAVEL TIME TO WORK PER SUBAREA PLACE OF RESIDENCE

Subarea (Place of Residence)	Average Travel Time to Work (Minutes)		Change in Travel Time (Minutes)
	1990	2000	
Airport	19.3	18.4	-.9
Arsenal	12.2	11.4	-.8
Big Cove	26.5	22.5	-4.0
Downtown	15.8	12.2	-3.6
East	24.7	22.7	-2.0
East Central	19.3	16.2	-3.1
Far South East	22.9	20.1	-2.8
Near Southeast	19.8	16.9	-2.9
North	23.9	21.7	-2.2
North Central	20.2	19.2	-1.0
North East	21.1	18.5	-2.6
North West	16.9	17.1	+.2
Research Park	17.6	17.8	+.2
West Central	18.4	17.1	-1.3

Source: US Census Bureau and City of Huntsville Planning Division

b. Accessibility per Subarea

Subarea boundaries changed slightly in 2000 based upon the latest census data; however, the boundaries' impact on commuting times per subarea was not significant nor substantial. During the past ten years, the Big Cove and East subareas have experienced tremendous growth with the development of the Hampton Cove community. The number of commuters in these combined subareas increased by approximately 127%. The fact that improvements have been made in commuting times in subareas which now have an increased population base is quite impressive. Also impressive is that commute times have essentially decreased city-wide.

When comparing the changes in travel time to work, and noting improvements as well as minimal increases in travel time, it is determined that network accessibility during peak hours, (when most congestion occurs) is indeed acceptable.

2. Transportation Planning Initiatives

The dramatic improvement in travel time to work is directly related to local transportation planning activities and the implementation of those plans. Local transportation planning activities are handled through the Huntsville-area Metropolitan Planning Organization (MPO). The local MPO and its requirements set forth by federal legislation, seeks to insure that all transportation plans and programs are continuous, cooperative, and comprehensive and, therefore; coordinated with the planned development of the Huntsville urban area.

The local MPO is a coordinated organization comprised of local elected officials as well as a representative from the Alabama Department of Transportation. As such, they are legally empowered to implement transportation plans. They consider transportation planning goals and objectives along with financial and

social consequences when adopting transportation plans. A Technical Coordinating Committee (TCC) provides the technical and professional guidance for the planning process and is composed of experienced professional persons who can determine if developed plans will be feasible for the local area. Both Redstone Arsenal and NASA representatives are members of the Technical Coordinating Committee, and provide technical planning assistance and input to the local transportation planning process. Public involvement in the transportation planning process is provided through a Citizens' Advisory Committee (CAC).

MPO members provide input to various transportation plans, including the **Transportation Improvement Program** and the **Long Range Transportation Plan**. All federally funded transportation projects in the urban area must be programmed for construction by the MPO, and be listed in the **Transportation Improvement Program** and the **Long Range Transportation Plan** adopted by the MPO.

B. Road Construction Projects

The construction of planned transportation improvements has contributed significantly to the mobility of area residents on local transportation corridors. The financial commitment of officials on the local, state, and federal level for the construction of these improvements has been tremendous.

1. Major Roadway Improvements - 1990 to Present

A map depicting all major roadway improvements completed since 1990 is shown at **Map 3.1**. All projects completed from 1990 to the present represent a joint local, state, and federal investment in excess of \$711 million. This investment reflects monies spent for engineering design, utility relocation, right-of-way acquisition, and construction. Of all these improvements, the Interstate-565 construction project had the most impact on regional mobility. This project, completed in 1992, cost approximately \$425 million.

While all completed transportation construction projects improved access and mobility to the community as a whole, several construction projects had a direct positive impact on access to Redstone Arsenal. One project in particular was constructed directly on the installation, and was funded jointly with federal and State monies. Approximately \$16.6 million was spent to widen Martin Road from Memorial Parkway to Redstone Arsenal's Gate 1, and further to Patton Road. All of the projects listed below are located in close proximity to Redstone Arsenal, and have contributed greatly in improved commute times for Redstone personnel:

- Martin Road widening on Redstone Arsenal from Gate 1 to Memorial Parkway
- Martin Road widening on Redstone Arsenal from Gate 1 to Patton Road
- Memorial Parkway widening project from Martin Road to the Tennessee River

- Overpass construction at Memorial Parkway and Golf Road/Vermont Road
- Old Madison Pike widening from Thornton Industrial Park to Research Park Boulevard
- Old Madison Pike relocation and widening from Sullivan Street to Slaughter Road
- Overpass construction at Memorial Parkway and Airport Road
- I-565 construction
- Research Park Boulevard construction from I-565 to Highway 53
- Bradford Drive widening from Wynn Drive to Research Park Boulevard
- Johnson Road widening from Triana Boulevard to Leeman Ferry Road
- Airport Road extension from Leeman Ferry Road to Memorial Parkway

2. Major Roadway Improvements Under Construction

Various transportation improvement projects are underway in the Huntsville area. These projects reflect an investment of local, state, and federal funds in excess of \$40.4 million.

3. Planned Future Transportation Improvements

Various transportation improvements have been identified and approved by the local MPO and/or local jurisdictions, and are at different phases of design or construction.

a. **Fiscal Year 2006-2010 Transportation Improvement Program**

The **Fiscal Year 2006-2010 Transportation Improvement Program** is a program management tool prepared locally in coordination with the State of Alabama and local transit providers, and required by federal legislation. The bi-annually prepared document ties identified road construction projects with federal, state, and local financial commitments. Projects targeted for preliminary engineering, right-of-way acquisition, utility relocation, and construction during fiscal years 2006-2010 reflect joint federal, state, and local financial commitments in excess of \$446.5 million. These identified projects, shown on **Map 3.2**, will improve traffic flow throughout the community. Specific projects are included in the Transportation Improvement Program that will either provide for improvements on Redstone Arsenal or will improve direct access to the installation. These funding commitments total nearly \$212 million. A listing of these projects is provided at **Table 3.3**.

TABLE 3.3
FISCAL YEAR 2006-2010 FUNDING COMMITMENTS
TRANSPORTATION IMPROVEMENT PROJECTS SERVING DIRECT ACCESS TO REDSTONE ARSENAL

1. Memorial Parkway frontage roads	RW.....\$470,000
North of Whitesburg Drive to South of Golf Road	UT.....\$2,000,000
	CN.....\$9,286,090
2. Memorial Parkway overpass	
North of Whitesburg Drive to South of Golf Road	CN.....\$15,410,193
3. Weatherly Road Extension	PE.....\$500,000
From Memorial Parkway to the Southern Bypass	
4. Old Madison Pike	PE.....\$75,000
Widen and Intersection Improvements @ Research Park Blvd and Ramps	CN.....\$750,000
5. Old Madison Pike	RW.....\$50,000
Widening from Slaughter Road to Thornton Research Park	UT.....\$50,000
6. Martin Road	PE.....\$500,000
From Zierdt Road to Wall Triana Highway	
7. *Southern Bypass (new road)	PE.....\$2,000,000
From West of Burose to West of Toftoy	CN.....\$21,780,500
8. *Southern Bypass (new road)	CN.....\$16,000,000
From West of Martin Road to East of Martin Road	
9. *Southern Bypass (new road)	CN.....\$38,000,000
Bridges from South of Martin Road to Martin Road	
10. *Southern Bypass (new road)	CN.....\$20,000,000
Bridges from East of Patton Road to West of Martin Road	
11. *Southern Bypass (new road)	PE.....\$1,010,500
From South of Homestead to North of Homestead	CN.....\$14,431,500
12. *Southern Bypass (new road)	PE.....\$2,272,200
From Weatherly Road Extension to Martin Road, Segment 4	RW.....\$1,080,000
	UT.....\$165,000
13. *Southern Bypass (new road)	PE.....\$572,500
West of Toftoy Freeway to East of Morris Road	CN.....\$8,175,000
14. *Southern Bypass (new road)	PE.....\$1,402,500
East of Morris Road to South of Homestead Road	CN.....\$20,033,000
15. *Southern Bypass (new road)	PE.....\$1,963,000
From Weatherly Road Extension to Martin Road Segment 3	RW.....\$1,030,000
	UT.....\$160,000
16. *Southern Bypass (new road)	PE.....\$1,422,100
From North of Homestead Road to North of Goss Road	RW.....\$150,000
17. *Southern Bypass (new road)	PE.....\$3,028,500
2 North Ramps @ the Interchange of Weatherly Road Extension	
18. *Southern Bypass (new road)	PE.....\$2,209,500
From North of Redstone Road to Interchange @ Weatherly Road Ext.	
19. *Southern Bypass (new road)	CN.....\$26,000,000
From East of Patton Road to West of Burose Road	
Total Funding Commitments:	
<u>\$211,976,983</u>	
<i>*Project to be constructed on Redstone Arsenal</i>	
PE.....Preliminary Engineering	RW.....Right of Way Acquisition
UT.....Utility Relocation	CN.....Construction

One of the major projects that is scheduled for construction on Redstone Arsenal is the Southern Bypass. The Southern Bypass has been identified as a high priority project on the National Highway System. It is a portion of the larger Memphis to Atlanta Highway project, that enters Madison County along I-565, follows the Southern Bypass across Redstone Arsenal, and then proceeds eastward out of Madison County. The Southern Bypass provides a new north-south major freeway that is needed to relieve congestion on the only existing major north-south route, US 231/Memorial Parkway. The project runs through portions of the City of Huntsville and Redstone Arsenal. Extensive coordination has been done with the installation to ensure that the corridor's planned location is acceptable to Redstone officials. Preliminary engineering designs have been completed for some portions of the project. Three interchanges are planned for construction on Redstone Arsenal: at Research Park Boulevard, at Mills Road/Toftoy Thruway, and at Martin Road. An agreement has been executed with the City of Huntsville, State of Alabama, and Redstone Arsenal to affirm that the State of Alabama will provide appropriate signage and maintain the roadways, fences, lighting, and traffic control devices on the facility. Additionally, the agreement calls for the State to consult with the Army during construction to minimize the impact of Arsenal traffic and the Army mission. Since road construction will raze the Arsenal's Visitors' Center, the City of Huntsville has agreed to replace the facility, presently located on Martin Road, with a comparable new one, at a location on Redstone Arsenal to be determined by the Army. The maximum cost to the City for a new Visitors' Center is set at \$1,000,000. The entire Southern Bypass project reflects a tremendous funding commitment and investment of federal, state, and local leaders at a cost over \$532 million. The project should be completed by 2014.

b. Capital Improvements Plan

The **Capital Improvements Plan** is a local long-range financial plan that ties funding for capital projects, such as road infrastructure improvements, to future years. The City of Huntsville's **Capital Improvement Plan** details specific projects for ten years. Funding for local transportation improvement projects identified in the City of Huntsville's **Capital Improvements Plan** total \$574,278,000. These financial commitments provide for the construction or improvement of pre-selected corridors.

c. Long Range Transportation Plan

The **Long Range Transportation Plan** is a document that identifies roads that require improvements in order to keep up with anticipated demand on the system. The plan covers a period of 25 years. The Huntsville area MPO adopts a new **Long Range Transportation Plan** every five years. This plan sets the tone for future transportation improvement investments that will be identified in the **Transportation Improvement Program** or in each jurisdiction's capital improvements plan. The Long Range Transportation Plan has identified specific

projects that provide direct access to Redstone Arsenal. In addition to projects that have been previously mentioned, two more projects were identified. Martin Road is to be widened to a 4-lane facility from Zierdt Road to Wall Triana Highway. Additionally, Zierdt Road is to be widened to a 5-lane facility from I-565 to Beadle Lane. These improvements will alleviate anticipated congestion on the corridors, and will provide easier access to employees and visitors using Gate 7 as their entryway on-post.

C. Public Transit

In addition to funding commitments to improve roadway mobility, local, state, and federal funds are made available to support available public transit services. The **Fiscal Year 2006-2010 Transportation Improvement Program** indicates that over \$14.2 million will be allocated to support public transit services in the City of Huntsville.

The City of Huntsville Department of Parking and Public Transit administers a fixed route service - the Huntsville Shuttle. The Shuttle operates eleven routes within the city limits of Huntsville, and provides service Monday through Friday from 6:00 a.m. until 6:00 p.m.

The City of Huntsville also administers a demand response service, known as Handi-Ride. The Handi-Ride service operates Monday through Friday from 6:00 a.m. until 6:00 p.m. Service is limited to pre-qualified individuals that are elderly and/or disabled and cannot access traditional fixed route transit service. Handi-Ride transportation must be scheduled at least 24 hours in advance.

A new 28,900 square foot facility has been constructed to accommodate Huntsville Public Transit's administrative and operational offices. The \$4.7 million facility also serves as the hub of the City's Shuttle service, and provides many amenities to transit users.

The benefits accrued through transportation planning initiatives have been made evident through reported decreased journey to work times and the provision of viable transit services. Local, state, and federal officials have committed financial and personal support to improve mobility in the community. Transportation planning initiatives and actual construction projects, coordinated with Redstone Arsenal and NASA representatives, have shown to increase mobility of the area's population, especially along corridors providing direct access to Redstone Arsenal.

III. Airport Facilities

The Tennessee Valley Region has various airport and airfield facilities. Redstone Arsenal is one of four Army Installations with a flying activity. Persons wishing to participate can take advantage of these local airport and airfield facilities. Detailed information concerning the characteristics of each facility can be found at: www.airnav.com/airports/us/AL.

The Huntsville-Madison County area has the largest concentration of airport and airfield facilities in the region. Additionally, Huntsville is the site of the Huntsville International Airport, the only airport providing commercial flights in the Tennessee Valley Region.

Huntsville International Airport-Port of Huntsville

Director: Rick Tucker

1000 Glenn Hearn Boulevard

Huntsville, Alabama 35824

(256) 772-9395

Web Site: www.hsvairport.org/airport/

The Huntsville-Madison County Airport Authority operates the Huntsville International Airport-Port of Huntsville, which is located approximately 10 miles east of Decatur, and is the principal airport serving North Alabama and South Central Tennessee. Airport operations are conducted on approximately 5,800 acres of land and include two active runways, associated taxiways, the International Intermodal Center, and the Jetplex Industrial Park. In addition to these three main operating entities, the Huntsville Madison County Airport Authority owns, but has management contracts for the Sheraton Four Points Hotel, Sunset Landing Golf Club, Signature Flight Support and Foreign Trade Zone No. 83.

A. Flight Information

1. Commercial Service

Huntsville International serves approximately 1 million passengers each year through approximately 95 passenger flights per day (arrivals and departures) during the week, and approximately 85 passenger flights per day on the weekend. The facility also provides more than 30 all-cargo flights per week. Passenger service is available from American Airlines, American Eagle, Delta Air Lines, Comair, ASA, US Airways Express, Northwest Airlin, and Continental Express. Non-stop service is available to the following cities: Dallas, Chicago, Atlanta, Orlando, Cincinnati, Washington DC (Reagan National), Charlotte, Memphis, Tampa, Detroit, Houston, New York (LaGuardia) and Newark. Connections are available to virtually all national and most international destinations.

**FIGURE 3.2: HUNTSVILLE INTERNATIONAL AIRPORT
COMMERCIAL FLIGHT DESTINATIONS**



During 2003, Huntsville International added seven non-stop flights to four new destinations. Huntsville International has four round trip flights per day to Washington DC (DCA) on US Airways. Delta provides two daily round trip flights to Washington DC (DCA), and two daily flights to Orlando. These destinations have proved popular with military personnel and local defense contractors. A flight schedule is provided.

TABLE 3.4
Huntsville International Airport Schedule

<u>Airline</u>	<u>City</u>	<u>Service Frequency</u>
American	Dallas	6 daily
American	Chicago	2 daily
Delta	Atlanta	10 daily
Delta	Cincinnati	5 daily
Delta	Orlando	2 daily
Delta	Washington - DCA	2 daily
Delta	Tampa	1 daily
US Air	Charlotte	5 daily
US Air	Washington - DCA	4 daily
Northwest	Memphis	3 daily
Northwest	Detroit	2 daily
Continental	Houston	4 daily
Continental	New York – EWR	1 daily

2. Private Flight Support

Fixed-base operations for private aircraft and air taxi, charter, sales, rental, training and other private flight services are also available through Signature Flight Support.

3. Expansion of Flight Support Capabilities

Several projects have been completed or are under construction to support aircraft flight operations. The West Runway at Huntsville International Airport has been extended to 12,600 feet. It is the second longest runway in the Southeast and will enable the airport to accommodate a Boeing 747 fully loaded - and the heaviest all-cargo aircraft over the longest distances. The other parallel runway is 10,000 feet and can accommodate many larger aircraft, including Boeing 747 cargo planes.

A new Air Traffic Control Tower is in the construction phase. The new tower will be built between the existing runways. It will be approximately 250 feet tall and will be able to accommodate future growth of the airport infrastructure and meet the needs of a longer runway. The new tower will be of optimal use when the airport moves forward with its master plan to expand the infrastructure to an ultimate goal of five parallel runways. Completion of the new air traffic control tower is anticipated by 2008.

B. Huntsville International Airport Intermodal Center – General Services

The Huntsville International Airport-Port of Huntsville is more than just an airport. It is a multifaceted transportation complex that brings together cargo movement and passenger travel with business and industry. The International Intermodal Center (IIC) is a central cargo hub that incorporates air, rail and highway modes of transportation. This one-stop complex for receiving, storing, and distribution of cargo has played a crucial role in the economic fortitude of this region. The IIC is located on-site at Huntsville International Airport. It is the only rail center in the country owned and operated by an Airport Authority. This center is designated as a US Customs Port of Entry which is home to 24-hour US Customs & Border Protection, and is part of Foreign Trade Zone No. 83. Norfolk Southern railroad has been a partner with the Port of Huntsville since the Intermodal Center opened nearly 20 years ago.

Huntsville International Airport has also clearly established itself as an important international air cargo gateway to the world handling the only scheduled international flights in the State of Alabama. The International Air Cargo Center is a multi-use facility made up of two 100,000 square foot buildings housing the air freight operations of seven all cargo air carriers including: Airborne Express, Atlas Air, DHL, Cargolux, Eagle Global Logistics, Menlo Forwarding, Federal Express, UPS and Panalpina. The air cargo center offers easy access to connecting air and highway modes serving half of the United States and Mexico.

C. Jetplex Industrial Park

The Jetplex Industrial Park complements the Port of Huntsville with its existing infrastructure, presence of Foreign Trade Zone No. 83, high quality work force and direct access to a comprehensive multi-modal transportation network. Major tenants include The Boeing Company, International Diesel, DaimlerChrysler, Futaba and LG Electronics. This park offers air, rail and highway transportation access to domestic and international markets. The Jetplex Industrial Park divides more than 4,000 acres into four sections each with its own distinct characteristics. Each section of the park is an integral part of Huntsville International Airport. The convenient location of the park to Huntsville International Airport and the International Intermodal Center offers commerce and industry the competitive tools necessary in today's global economy.

D. Airport Public Safety

1. General

The Airport Authority Public Safety Department includes 19 sworn officers & certified firefighters. These employees are cross-trained. Facility coverage consists of six personnel per 24 hour shift 365 days per year. Additionally, there

are 62 employees of the Transportation Security Administration at Huntsville International Airport.

2. Capabilities

The Public Safety Department staff has appropriate equipment and maintains its capabilities for emergency response through training and exercise drills.

The Public Safety Department has three Aircraft Rescue Fire Fighting (ARFF) vehicles. All three of the trucks possess large foam ability and two of the trucks have dry chemical capability. A new replacement vehicle has been procured, which has a 50ft. boom capable of applying foam inside an aircraft. This truck also has GPS navigation and forward looking infrared guidance system.

The Public Safety Department staff at Huntsville International Airport has completed specialized ARFF training. Some of the specialized areas include haz-mat, high angle rescue, and confined space rescue. Also all officers are sworn police officers with specialized training in aviation security. Several officers are paramedics and EMT's which enables the Airport to have a trained medic on duty 24/7.

The Airport Authority conducted a full scale live drill in 2002 on site at the airport. The Federal Aviation Administration requires a live drill every three years and a tabletop exercise every year in between. Redstone Arsenal participated in the 2002 live drill and the 2003 tabletop as part of the Huntsville-Madison County Local Emergency Planning Committee. The airport participates in the Redstone Arsenal drills as well.

For eight consecutive years, the Huntsville International Airport has passed the Federal Aviation Administration's rigorous FAR 139 airport certification inspection with no infractions. The inspection takes two days to complete and examines many aspects of airport operations. Such areas include the Airport Certification Manual, airfield lighting, pavement, markings, safety areas, snow plan, ARFF (Aircraft Rescue Firefighting) training and response drill, hazardous materials incidents, daily airfield inspections, ground vehicle operations, wildlife hazard management, and obstructions. Each area of the inspection is scrutinized to ensure the airport is operating in a well-organized and capable manner. Viable plans and the ability to implement those plans are essential in case of emergencies.

E. Huntsville International Airport's Relationship with Redstone Arsenal

The Huntsville International Airport as a whole has a productive relationship with Redstone Arsenal and assists the installation in public safety response, can provide direct support for daily and special operations, and generally promotes Army and DoD-related activities.

1. Public Safety Support

The Public Safety Department works well with Redstone Arsenal, and provides support to their operations.

The Airport Authority and Redstone Arsenal have a signed mutual aid agreement for any emergency services that both departments provide. A relationship is maintained between the Airport's Director of Public Safety and the fire chief at Redstone Arsenal through monthly discussion meetings.

Additionally, the Airport Authority conducts certification for Aircraft Rescue Firefighting (ARFF) and Redstone Arsenal has sent personnel to this training. The Airport and Redstone have partnered with the classes being taught on post and using their fire pit.

2. Direct Support to Army and NASA Daily and Special Operations

The Airport has provided support to Redstone Arsenal and NASA for daily and special operations. Due to the dynamic infrastructure located at Huntsville International both the U.S. Army and NASA are able to move cargo with ease around the world. As well, military charters of large commercial jets and carriage of missiles on wide-body freighters are able to move to "hot zones" on the airport in a safe and secure manner. The Airport has provided support in movements of special cargo shipments with both the U.S. Army and NASA. The Airport has also provided personnel and facilities to both Redstone and NASA for the movement of these shipments during day and night.

Additionally, during instances when the Redstone airfield has been closed for construction work, the Huntsville International Airport has provided appropriate facilities for their regular and customary operations.

NASA also bases their Gulfstream II at a hangar at Huntsville International Airport.

3. Promotion of Army/DoD-Related Programs

The Airport works closely with Redstone Arsenal to support various initiatives. In 2003, the Huntsville International Airport sponsored **Airshow 2003**. **Airshow 2003** was a full-scale military and civilian airshow that was free admission to the public. Each branch of the military received free display space for their recruiting office. In addition, Airport staff worked closely with Redstone Arsenal and NASA to put on a full display of their products including the MLRS, Blackhawk helicopter, Avenger, Bradley Fighting Vehicle, Patriot Missile Battery, the Super Guppy, T-38, a Space Station display and other statics. Redstone was given unlimited free space to provide any static displays that they wished to highlight. The Redstone Marshall Provost Office also participated in a "Working Dogs Demonstration" during the Airshow. Over 100,000 spectators attended the March airshow despite temperatures in the 30's.

The Airport additionally provides free space in the concourse in front of Gate 1 for a U.S. Army display. The Public Affairs Office on Redstone keeps the 10 foot glass display up to date. It includes models, photos and descriptions of Army vehicles and equipment. US Airways operates out of Gate 1. This provides optimal viewing for our Washington DC passenger. Also, passengers must pass by the display to go to any Gate on the concourse.

The capabilities, support, and resources that the Huntsville International Airport makes available to Redstone Arsenal highlights a partnership that has transcended many years and a valued commitment to continue support. Additionally, the multiple capabilities unique to the Huntsville International Airport-Port of Huntsville are available to support a variety of missions.

While transportation infrastructure and specialized services are vital to a region's livelihood and enhance quality of life, basic infrastructure and services are provided to residents, businesses, and in some instances Redstone Arsenal. These other services are highlighted as follows.

IV. Other Infrastructure

A. Sewer Services

Local sewer services are handled by the City of Huntsville's Water Pollution Control Department in the City of Huntsville.

City of Huntsville Water Pollution Control

Director: Thomas Lovelady

1800 Vermont Road

Huntsville, Alabama 35802

Phone: (256) 883-3719

Web Site: www.hsvcity.com/wpc/index.php

The Huntsville Water Pollution Control Department serves approximately 61,000 customers in the city limits of Huntsville and in the Town of Triana. The Huntsville department serves Redstone Arsenal by accepting "food grade" grease from its facilities located on post. The average monthly collection from Redstone Arsenal is approximately 18,000 gallons per month.

Expansion of Service

The City's sewer system has recently expanded to support new and anticipated growth. The City of Huntsville has made investments totaling over \$88.6 million in sewer and drainage improvements from 2002 through 2005. Major sewer and drainage improvements are shown on **Map 3.3**.

The department has existing sewer service around all boundaries of Redstone Arsenal. Should sewer service be requested by Redstone Arsenal in the future, the City of Huntsville should be able to accommodate such request with their current treatment facilities and collection systems.

B. Utilities

Public utility service in the City of Huntsville is provided by Huntsville Utilities. An overview of utility resources is provided.

Huntsville Utilities

Director: Bill Pippin

P.O. Box 2048

Huntsville, Alabama 35804
(256) 535-1200
Web Site: www.hsvutil.org

Huntsville Utilities is the local distributor of most utility services county-wide. It sells electrical, gas, and water services to area residents.

1. Electrical

The Tennessee Valley Authority (TVA) (www.tva.com/) is the supplier of electrical power to the Tennessee Valley Region. It sells power to Huntsville Utilities, who in turn provides the service directly to its customers. TVA serves the region with a diverse mix of power generation resources. As such, rates are low, and service is highly dependable. At the end of October 2002, TVA officials reported that customers had received a disruption in TVA service for a total of 4.8 minutes. According to TVA officials, the current reliability rate of the TVA power supply is 99.999%.

Huntsville Utilities has 87 electrical substations throughout Madison County – 18 of which can be expanded if necessary. Additionally, Huntsville Utilities has 8 substation land sites for future stations.

2. Gas

Huntsville Utilities purchases natural gas from suppliers along the U.S. Gulf Coast. The utility company receives gas pipeline services from Enbridge, Southern Natural Gas, and Tennessee Gas Pipeline. Huntsville Utilities provides natural gas services to customers in the City of Huntsville and portions of Madison County. Redstone Arsenal is also a natural gas customer.

3. Water

Water services are provided to the residents of the City of Huntsville by Huntsville Utilities. The utility company also wholesales water to several other water systems in Madison County. While Huntsville Utilities provides water to Redstone Arsenal on an as needed basis, they do have the ability to serve the installation.

Huntsville Utilities has a mixed source water supply, from the Tennessee River and from a series of wells located in the city. All water treatment plants have a total daily pumpage capacity of 78 million gallons of water, and another 48.6 million gallons of water is in storage in 30 reservoirs located throughout the system. An additional 12 million gallons of capacity is scheduled to be added this year.

C. Wireless Networks

The Huntsville area is on the cutting edge of technology, and has a phenomenal wireless network infrastructure in place to support a high-tech work environment, technology resources throughout the state, and an emergency communications system.

1. Digital Networks

Huntsville's Tier1 network solution providers include AT&T, Sprint, Level(3) and UUNET. In addition to those Tier1 providers, extensive fiber optic networks have been developed throughout the Huntsville area by ICI/WorldCom, KMC, Knology, Comcast, BellSouth, HiWAAY, and API Digital in order to meet the demand of Huntsville's high-tech clientele.

As a viable alternative to traditional wide area networking (WAN) solutions some local companies opt for state of the art wireless networking solutions. Up to 20MBs of wireless, broadband, network connectivity is available from Traveler Information Services. Traveler's wireless WAN is facilitated via Western Digital's Tsunami equipment. When this technology is coupled with Canopy type wireless technology at the customer site, advanced wireless networking solutions in Huntsville are a reality.

2. Statewide Technological Support

The Alabama Supercomputer Center (www.asc.edu/index.shtml) is located in the Alabama Supercomputer Authority's 24,000 square foot building in Huntsville's Cummings Research Park. The Center houses a Cray XD1 supercomputer with access to over 5.3 terabytes of long term data storage. This tremendous computing power is connected via the Alabama Research and Education Network (AREN) which provides Internet access for Alabama state government, four-year universities, two-year colleges, K-12 schools, and libraries. The Authority has become an Affiliate Member of Internet 2, a cooperative effort of 202 member universities working together with private member companies and non-profit organizations to provide the tools for scientific research and higher education in the 21st century. As a shared resource for academic research, AREN successfully provides cutting-edge computational science tools and technology for all Alabama public education institutions.

3. Emergency Communications System

Huntsville is a regional leader in Emergency Response and Management (<http://www.madisoncountyema.com>). The basis for timely and accurate response to emergencies is the communications systems. In 1996 Huntsville had the foresight to implement a multi-site 800MHz simulcast APCO 16 trunking system to handle emergency responder voice and data communications.

This trunked system utilizes the signaling channel protocol concept. All units turned on, within the RF coverage area, and unassigned will monitor the signaling channel. It supports talk group assignments, emergency assignments, individual signaling calls, and special signal calls.

The system has twenty-four separate channels. It is broadcast from the main tower (400ft. free standing) on Monte Sano Mountain with a backup/repeater tower located at Madkin Mountain. This system is integrated with the Huntsville-Madison County E-911 Center and via the E-911 Center's console is used for location, analysis, and dispatch of all City Fire, Police, and EMA personnel.

Additionally, the City's 800MHz system supports the following subsystems:

- Paging
- Digital Voice Encryption
- Alarm and Control
- Automated Vehicle Location
- Mobile Data Terminals

These subsystems support, among other things, emergency vehicle location services and mobile data terminal communications for emergency responders.

The City's 800MHz system is also provides communication services for the following agencies:

- City of Madison Fire and Police
- Huntsville Hospital
- Alabama A&M University
- The University of Alabama-Huntsville
- Huntsville Utilities
- The Huntsville/Madison County Metro Jail

V. Environmental Quality

The City of Huntsville takes environmental quality very seriously, and has several departments with a primary mission to prevent and/or address environmental issues in the community. This proactive stance has ensured that the area's air is healthful and that communities are clean.

Huntsville's commitment to environmental protection is evidenced by the fact that there is an environmental protection division within municipal government. The City of Huntsville has one of only two local air pollution control programs in the State of Alabama. This program is implemented by the City's Division of Natural Resources and Environmental Management. In addition to the air pollution control program, the Division of Natural Resources is also responsible for implementing the City's explosive blasting control program, and for enforcing the noise ordinance and a storm water management program.

The City of Huntsville's Operation Green Team, which is an integral component of the Mayor's Office, manages anti-littering programs, provides public education, and organizes volunteers for beautification projects and community clean-up events. During December 2003, the Department received the President's Golden Circle Award from the National Keep America Beautiful Office due to its efforts.

The City also recently initiated an "Environmental Court" that tries only cases that have an impact on the environment and quality of life in the city.

These municipal initiatives undertaken by the City of Huntsville ensure that the environmental quality of the area remains sound, and that water and air resources remain protected.

A. Water Quality

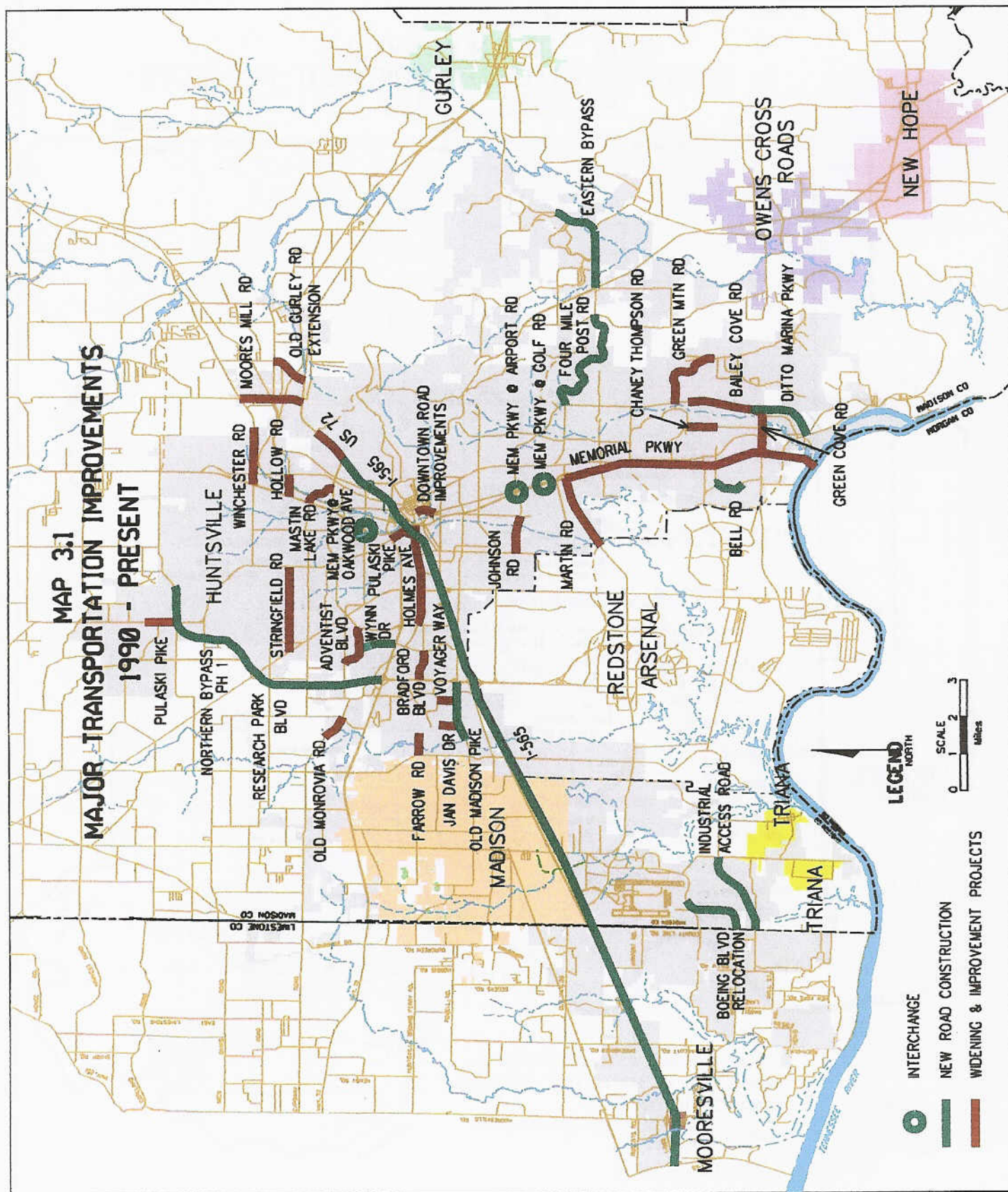
According to the Alabama Department of Environmental Management, the quality of Alabama's surface waters is of generally high overall quality. At the present time, approximately 15 State agencies are involved with maintaining the area's water quality and quantity. The Tennessee Valley Authority is also active in area water quality initiatives. The organization recently certified its first Tennessee Valley Clean Marina at Ditto Landing Marina, Huntsville. The efforts of the State of Alabama and the Tennessee Valley Authority, in addition to various local watershed protection groups, make certain that the region's water resources are of high integrity.

B. Air Quality

Huntsville is an attainment area for all criteria pollutants (pollutants for which EPA has promulgated National Ambient Air Quality Standards under the Clean Air Act). Many areas of the country currently in attainment are expected to be designated non-attainment under the stringent NAAQS for ozone (the "8-hour ozone standard") and fine particulate matter promulgated by EPA in 1997. Huntsville is meeting these standards as well. Through 2003, the three-year average 8-hour ozone concentration in Huntsville stands at 0.079 ppm, well below the federal standard of 0.085 ppm. Similarly, through 2003 the three-year average fine particulate matter concentration is 14.1 $\mu\text{g}/\text{m}^3$, well below the federal standard of 15.0 $\mu\text{g}/\text{m}^3$. Consequently, Huntsville was not included among the areas on the Governor's list of recommended non-attainment areas under the 8-hour ozone NAAQS that was submitted to EPA in July 2003. Huntsville has always been, and continues to be an attainment area for all criteria pollutants under the Clean Air Act.

The nature of Huntsville's industrial community reflects the large presence of high-technology, low-polluting industries - most of which provide support to Redstone Arsenal. The presence of these "clean" industries and the absence of heavy manufacturing operations has had a tremendous impact on air quality in the region.

The City of Huntsville has proactive leaders that work diligently to ensure that the area's transportation network and services, and other infrastructure is up-to-date and can serve a growing population. Expansion capabilities have been built into many systems, and in some instances expansion is occurring. The balance of growth and environmental quality presents a challenge to many communities. Initiatives taken by the City of Huntsville to insure environmental integrity of the region despite growth and development are evident in the quality of water and air resources, and the quality of life enjoyed by residents in the region.





Map 3.3 **Sanitary Sewer and Drainage Improvements** **2002-2005 Total Investments: \$88,619,000**



East Limestone County
Pumpstation and Lines

Pumpstation

Indian Creek Force Main North

Economic Development
Magnolia Springs WWTP

Downtown Hotel
Drainage Improvements

Monte Sano Ph I

Monte Sano Ph II

Indian Creek Force Main South

Aldridge Creek Channel
Improvements Program

Pumpstation

Rome Rd Pumpstation

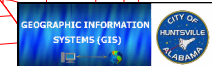
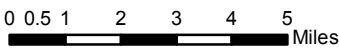
Western Area Influent Line

Western Area WWTP Rehab/Expansion

Western Area Effluent Line

Hobbs Island Rd Improvements

- Roads
- Sanitary Sewer
- Storm Sewer
- City of Huntsville



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CITY OF HUNTSVILLE EDUCATIONAL OPPORTUNITIES QUICK FACTS

The Huntsville area provides many educational opportunities to students from elementary school to the post-doctorate level. Various educational programs and activities encourage scientific discovery and hands-on learning.

The local school system offers specialized programs geared toward the advancement of students in all areas. Private schools add to the learning experience, with some offering specialty programs and services to students.

The Huntsville area has an imminent workforce in disciplines of computer science, information technology, science, engineering, and physics. Over 5,100 students from area colleges and universities have declared majors in those fields of study. These students have opportunities to gain practical experience in government labs and other settings to contribute to research and development initiatives of the Army as well as NASA.

Huntsville, Alabama is home to two research intensive universities that play a key role in supporting Redstone Arsenal. Many specialized programs and specific centers supporting both the U.S. Army and NASA were specifically developed to support their needs.

This core support and the relationships that developed out of these needs have made the Huntsville area a unique environment for scientific research and development to assist U.S. Army and NASA missions.

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SECTION 4

CITY OF HUNTSVILLE

EDUCATIONAL OPPORTUNITIES

I. General Overview

The Huntsville area provides unique educational opportunities for students from pre-elementary school to the post-doctorate level. Educational facilities and resources in the region provide traditional educational instruction as well as specialty programs focused on scientific research and development. Children are taught critical thinking skills at an early age, and have an opportunity to develop those skills up to the post-doctorate level, through exceptional educational programs focusing on math and science initiatives and scientific research and development.

Huntsville has a commitment to excellence in education, to support the families of military and DoD civilian personnel, as well as defense-related research and development initiatives at the university and graduate school level. An overview of some of the educational opportunities available in the area is provided.

II. Local Schools – K through 12

The expectation of educational program delivery is high based upon the level of educational attainment of area parents. The local public school system and private schools have met the demands set before them, and provide innovative and competitive educational opportunities for their students. In addition to typical school facilities, several specialty schools are offered to students. A review of educational opportunities available at Huntsville City Schools and private schools located in the Huntsville area was conducted, with information following:

A. Public Schools

Huntsville City Schools

Superintendent: Dr. Ann Roy Moore

Phone: (256) 428-6800

Web Address: www.hsv.k12.al.us

Overview

The mission of the Huntsville City Schools, as an educational system set in one of the world's most technologically advanced communities, is to guarantee that every student will graduate with the capacity to compete successfully and contribute responsibly in a global, technological society through state-of-the-art, individualized teaching and learning in safe and orderly centers of excellence.

The Huntsville City Schools has a current enrollment of 23,065 diverse students. Typical student/teacher ratios are 19.49:1 at the elementary level and 18:1 at the secondary level. Approximately 4% of the students come from military families, with over half of those students living on base at Redstone Arsenal. Over 85% of the student population enroll in college.

The faculty consists of 1,827 members. A total of 2% of faculty members have obtained doctorates, 56% have obtained masters degrees, 36% have bachelor's degrees, and 6%

have associates degrees. Huntsville City Schools presently funds more than 300 teacher units over the State allocation. This allows the school system to have certified physical education teachers, guidance counselors, and art and music teachers.

Students are given a solid education, grounded in the traditional studies of the English language, mathematics, science, social studies, and foreign language. They are also given options to participate in advanced learning and specialty programs.

Advanced Learning Programs

The Huntsville City Schools implemented Distance Learning Labs through a grant from Toyota and The Schools Foundation in the Spring of 2001. The program offers a broad range of courses and simultaneously links classrooms on different campuses through technology resources. Through the Distance Learning Labs, students are given an opportunity to hear guest lecturers speak on topics such as contemporary literature to medical concepts. Additionally, Advanced Placement courses in English, math, science, computer science, foreign language, social studies, and art allow students to prepare for college and earn college credits.

Magnet Schools

Huntsville City Schools sponsors magnet programs at the elementary through high school level.

The Academy for Academics and Art, and the Academy for Science and Foreign Language are magnet schools that serve students in grades K-8. Both provide intense instruction in such areas as academics, foreign language, the arts, and science. The Academy for Science and Foreign Language offers the only International Baccalaureate program in northern Alabama. The academic framework of the program, developed by the Middle Years Programme of the Switzerland-based International Baccalaureate Organization, allows students to study a variety of interrelated disciplines.

The J.E. Williams Technology Middle School magnet program provides technology education to its students. Through interaction and close working relationships developed with local business leaders, students are exposed to the various aspects of technology industries.

At the high school level, multiple magnet programs are offered. Johnson High School's International Education Magnet Program prepares students to live and work in a global society, through several educational tracts. The Space Science curriculum, developed with the assistance of NASA's Marshall Space Flight Center, includes participation in various hands-on activities. The International Social Studies curriculum allows students to explore world problems, cultures, and political and economic systems, and examine health, population, and environmental concerns. Foreign language is also taught at the school. Students studying other languages can take their pick from Russian, Japanese, French, German, Spanish, or Latin.

Lee High School's magnet program focuses on two separate educational tracts: Creative and Performing Arts as well as Pre-engineering. The school has received many awards for its programs in visual arts, vocal music, creative writing, dance, drama, photography/video, and technical theater production. Enrollment for the Creative and Performing Arts tract is only by application and interview, audition, or portfolio. The Pre-engineering Program prepares students for college-level programs in engineering.

Classroom and practical instruction focuses on the integration of technical and academic skills. Enrollment is based on the student's grades in previous math courses.

New Century Technology High School offers instruction in technology and team problem solving through partnerships with Calhoun Community College, the Huntsville business community, and government agencies. These partnerships give students an opportunity to team with local industry leaders involved in technology development. Enrollment is approved through an application process.

Career/Technical Training Programs

Career and technical training facilities are located in five high schools and the Huntsville Center for Technology. The Huntsville Center for Technology provides skill training on an itinerate basis to all Huntsville City Schools high school students. (Adult trainees from local businesses and the general public are provided technical skill training in evening classes.) All students have access to a number of highly technical skills training classes, i.e.: precision machining, computer electronics, computer-aided drafting, Microsoft Office, automotive technology and welding. Program opportunities are constantly evolving to meet the needs of local business and industry.

Partnerships With Redstone Arsenal and NASA

Huntsville City Schools has developed partnerships with local industries and government through its traditional and advanced coursework and training programs. The school system has also developed partnerships with Redstone Arsenal and NASA, providing for student support and involving students in various programs and in research projects. A summary of a few of these partnerships follows:

- The "Tiny Soldiers" program is a volunteer character education program for 5th grade students at Terry Heights, West Huntsville, Lakewood, Martin Luther King, Rolling Hills, and Lincoln Elementary Schools. This program has a full teaching curriculum with workbook. Some students, after completing the program, are given full scholarships to J.F. Drake Technical College upon graduation from high school. A total of 87 scholarships are awarded each year. The program teaches discipline to the very young, and involves marching and drilling exercises. Local soldiers for the Army NCO Academy are involved in teaching necessary character development skills.
- The "US Army Garrison Education Committee" provides support to six local schools with the highest enrollment of students from military families. The Committee coordinates and provides available Army resources to meet the needs of local educational programs and special events. The Committee also coordinates volunteer and mentoring programs, teaming local soldiers and DoD civilians with students.
- Students are given an opportunity to see what military-related occupations are all about through the "Story Tellers" program - a technical career education program featuring speakers from Redstone Arsenal and NASA.
- Through NASA's educational initiatives, students are given a bevy of opportunities to compete in robotics competitions, the moon buggy competition, as well as participate in summer apprenticeship research programs. Students also participate in specialty education programs developed by NASA focusing on mathematics and scientific

research and development. These specialty programs will be explored later in this chapter.

The Huntsville City Schools also promotes military education and training through its Junior Reserve Officer Training (ROTC) programs offered at the high school level. Students can participate in the Army program at Lee and Grissom High Schools, the Marine program at J.O. Johnson High School, or the Air Force program at S.R. Butler and Huntsville High School. School officials report that many ROTC students continue their training with careers in the military after graduation.

Extra-Curricular Activities

In addition to these programs, students can also participate in extra-curricular activities such as band, chorale, drama, forensics, student government, service clubs and organizations, student publications such as literary magazines, and athletics.

Students can participate in football, volleyball, basketball, cheerleading, and track at the middle school level. High school students can participate in football, volleyball, hockey, cross country, swimming, basketball, wrestling, indoor track, softball, baseball, tennis, soccer, cheerleading, dance, and golf.

Expansion of Facilities

To accommodate population growth, the City of Huntsville constructed a new West High School in Cummings Research Park and a new K-8 school at the Providence Subdivision.

More information concerning the Huntsville City Schools is available at: www.hsv.k12.al.us.

B. Private Schools

Many independent or religiously-affiliated private schools are located in the Huntsville area. Private schools give parents the option of selecting an educational institution with a smaller student-teacher ratio, traditional or alternative curriculum offerings, and other specialty programs. Many of the schools administer standardized testing programs, which measure the effectiveness of instruction and the selected curriculum. Private school administrators are invited to join the Huntsville-Madison Private Schools Association, a professional group that meets monthly to coordinate and support the initiatives of private school instruction. Additional information concerning private schools in the area can be found at: www.huntsvillemadisonprivateschools.org. Tuition rates are based upon the 2005-2006 school year, and are subject to change from one school year to the next.

Independent Private Schools

Randolph School

President and Headmaster: Mr. David Wood

Phone: (256) 881-1701

Web Site: www.randolphschool.net

Grades Served: K-12

Student/Teacher Ratio: 10:1

Tuition Rates/Year: \$8,830 Grades K-3
 \$9,630 Grades 4-6
 \$10,430 Grades 7-8
 \$10,900 Grades 9-12

Randolph School was awarded the National Blue Ribbon of Excellence Award in 2002 for the Middle and Upper School (grades 7-12). The Primary and Lower School was awarded the National Blue Ribbon of Excellence Award during 2003.

One hundred percent of the graduates attend colleges or universities, and approximately 20 percent of the seniors are named National Merit Semifinalist or Commended Scholar each year. While the school takes pride in these academic achievements, students are encouraged to balance coursework with community service and extracurricular activities.

Current enrollment stands at 774 students. The faculty is comprised of 86 members, with 54% holding advanced degrees. Two teachers have won statewide "Teacher of the Year" awards, and several have won "Fulbright Teacher Awards."

Research and Other Grants for Randolph School

- Community Foundation Silicon Valley - \$10,000 grant for financial aid
- NASA - \$5,000 grant for Rocket Research
- Dolly Belle Foundation - \$15,000 for Lowe Academy (a summer community instructional program)
- Lowe Foundation - \$19,000 grant for Academic Summer Camp
- Lowe Foundation - \$50,000 Endowment

Extra-Curricular Activities

Extra-curricular activities available to students include: student government, academic and special interest clubs, band, chorale, Academic Competition Teams. Students in grades 3-6 participate in soccer and basketball. Students grade 6-12 participate in intramural sports. Interscholastic sports activities are available for students in grades 7-12. These sports include: basketball, volleyball, soccer, tennis, swimming, track and field, indoor track, baseball, football, softball, cheerleading, cross country, and golf.

Schola Maxima/The Reading Center

Principal: Ms. Grace Shultz

Phone: (256) 883-2910

Web Site: www.members.aol.com/scholamax/schola.html

Grades Served: 1-5

Student/Teacher Ratio: 12:1

Tuition Rates/Year: \$3500

Schola Maxima has a diverse student body of 40 students, and six faculty members fully degreed in education. The school provides small classes, has high academic standards, high SAT scores, and a friendly atmosphere. Parents are actively involved in school programs and initiatives. Schola Maxima also operates the Reading Center, which provides one-on-one tutoring services, or for small groups of six students. Tutoring is available for students from grades K-12. The Reading Center assists students that are

weak academically in some areas, and assists advanced students in further educational development. More information concerning the Reading Center's programs can be found at: <http://members.aol.com/scholamax/readingcenter.html>.

The Montessori School of Huntsville

Administrator: Ms. Kathy O'Reilly

Phone: (256) 881-3790

Web Site: www.montessorihuntsville.org

Grades Served: Toddlers – 3rd grade

Student/Teacher Ratio: Toddlers - 6:1

Preschool – 10:1

Tuition Rates: Toddlers - \$527/month

Preschool - \$439/month

Elementary – Program to be offered in 2006. Call for information.

The Montessori School of Huntsville has an enrollment of 120 students. Both staff and students are from many national origins and ethnic backgrounds. The school serves many children whose parents are employed at Redstone Arsenal.

Religiously-Affiliated Private Schools

Catholic High School

Principal: Mr. Vince Aquila

Phone: (256) 430-1760

Web Site: www.chsfalcons.org

Grades Served: 9-12

Student/Teacher Ratio: 12:1

Tuition Rates/Year: \$5,700

Catholic High School has an enrollment of 211 students, with 99% enrolling in college. Faculty is comprised of 30 members, holding doctorates, masters degrees, or undergraduate degrees. The school is affiliated with the Catholic faith, and encourages spiritual and academic growth of its students. Sporting activities available at the school include: hockey, golf, swimming, volleyball, rowing, basketball, and soccer.

Grace Lutheran School

Principal: Dr. Ellinor White

Phone: (256) 881-0553

Web Site: www.gracelutheran-hsv.org/

Grades Served: Pre-K to 8th Grade

Student/Teacher Ratio: 12:1

Tuition Rates/Year: \$2,210 for Pre-K3 - K

\$4,020 for Grades 1-3

\$4,100 for Grades 4-8

Grace Lutheran School is a Christian-based school that emphasizes quality academics and a traditional curriculum. The school serves a student population of 120. The school has 8 faculty members, with an average of 23 years of experience in education. Seventy-five percent of the faculty have masters degrees. Sports programs offered at the school include: soccer, basketball, track, t-ball, softball, cheerleading, and volleyball. The school participates in new military family orientation programs at Redstone Arsenal during the summer.

Heritage Christian School

Principal: Mr. Patrick Helton

Phone: (256) 859-5546

Grades Served: 1-8

Student/Teacher Ratio: 15:1

Tuition Rates/Month: \$265 for Grades 1-5
\$275 for Grades 6-8

Heritage Christian School has a student population of 77 children and 12 full time faculty members. Standardized testing scores are very high. Sports programs offered at the school include volleyball and basketball.

Holy Family School

Principal: Mrs. Mary Tomaine

Phone: (256) 539-5221

Web Site: www.holy-family-school.com/

Grades Served: K-8

Student/Teacher Ratio: 13:1

Tuition Rates/Year: \$2,795 for Parishioner
\$3,895 for Non-Parishioner
Discounted rates for multiple children

Holy family was founded as a Black Missionary School, and was the first school in the State to be integrated. Diversity and a strong academic program are their strengths. The school has a highly educated faculty of 18, and 180 students.

Holy Spirit School

Principal: Mr. James Bell

Phone: (256) 881-4852

Web Site: www.hstigers.org/

Grades Served: K-8

Student/Teacher Ratio: 17:1

Tuition Rates/Month: \$302 for Parishioner
\$367 for Non-Parishioner

Holy Spirit School is affiliated with the Catholic faith. The school serves a highly technical and sophisticated community that expects quality in education. Currently enrollment stands at 437 students. Faculty members number 25, with 32% holding Masters Degrees. Sports programs offered at the school include: soccer, volleyball, basketball, track, t-ball, and cheerleading.

Islamic Academy of Huntsville

Principal: Ms. Fowziyyah Ali

Phone: (256) 722-9838

Web Site: www.huntsvilleislamiccenter.org

Grades Served: Pre-K to 6th Grade

Student/Teacher Ratio: Varies from 6:1 to 12:1, depending upon grade

Tuition Rates/Month: Call for rates.

The Islamic Academy serves mostly multi-ethnic families from Asia, Africa, the Middle East, and North and South America. Student enrollment stands at 43. The school has 9 highly-educated faculty members, with several specializing in reading and Montessori. Students receive personal attention due to small classes. The school offers multi-age classrooms, cooperative learning groups, interactive and hands-on curriculum with a focus on teaching to multiple intelligences. The school is involved in community service and tutoring, and provides for an Islamic environment with daily prayers and the celebration of Islamic holidays.

Madison Academy

Principal: Mr. Robert Burton

Phone: (256) 971-1620

Web Site: www.macademy.org/

Grades Served: 3 year olds-12th Grade

Student/Teacher Ratio: 14:1

Tuition Rates/Year: \$4,600 for Pre-School

\$5,150 for Grades K-6

\$5,450 for Grades 7-12

Madison Academy is affiliated with the Churches of Christ. Seventy faculty members serve a student population of 850. Presently, 33% of faculty members have masters degrees, and 67% have bachelors degrees. Sports activities available at the school include football, basketball, baseball, soccer, golf, volleyball, softball, and cheerleading. The campus has plans to construct a new high school facility within the next five years.

St. John the Baptist Catholic School

Principal: Mr. Tommy Bridges

Phone: (256) 722-0772

Web Site: www.stjohnb.com/

Grades Served: K-8

Student/Teacher Ratio: 16:1

Tuition Rates/Month: \$280 for Parishioner

\$475 for Non-Parishioner

St. John the Baptist Catholic School has an emphasis on academics and service to others. A highly educated faculty of 29 serves a student population of 454. Approximately 15% of the student population come from military families. Sports activities available at the school include football, basketball, baseball, soccer, volleyball, t-ball, softball, and cheerleading.

Valley Fellowship Christian Academy

Principal: Ms. Patti Simon

Phone: (256) 533-5248

Web Site: www.valleyfellowship.com/

Grades Served: Pre-K to 12th Grade

Student/Teacher Ratio: 13.6:1

Tuition Rates/Month: \$188 for K3-K5 Church Members

\$201 for K3-K5 non-Members

\$274 for members Grades 1-6, \$291 for non-members

\$315 for members Grades 7-12, \$315 for non-members

Tuition discounts available for multiple children

Valley Fellowship Christian Academy serves a diverse student population of 176. Approximately 75% of the students proceed to enroll in college, and 25% proceed to join military service. About 20-25% of the students come from military families affiliated with Redstone Arsenal. The school has 21 faculty members - 14% with Masters degrees, and the remaining 86% with bachelors degrees. Sports programs offered at the school include: soccer, basketball, and volleyball. Valley Fellowship plans to construct a new campus within the next 5 - 7 years.

Westminster Christian Academy

Headmaster: Dr. Robert Illman

Phone: (256) 705-8000

Web Site: www.wca-hsv.org/

Grades Served: Pre-K to 12th Grade

Student/Teacher Ratio: 10:1

Tuition Rates/Year: \$3,500 for Pre-K

\$4,170 for K

\$4,700 for Grades 1-6

\$5,750 for Grades 7-12

Westminster Christian Academy serves a student population of 732 on three separate campuses. The school has 73 faculty members - 2 with doctorates, and 23 with Masters Degrees. Sports programs offered at the school include: cross country, basketball, track, softball, golf, and volleyball.

Whitesburg Academy

Principal: Ms. Anna Lee Dunn

Phone: (256) 704-5678, extension 353

Grades Served: 1st -6th Grade

Student/Teacher Ratio: 15:1

Tuition Rates/Year: \$3,200 for Grades 1-3

\$3,400 for Grades 4-5

\$3,600 for Grades 6-8

Whitesburg Academy is the only Christian Classical School in the area. The school provides quality education to a very technical and educated community. Current student enrollment stands at 121 children. The school has 16 faculty members - 4 with Masters

Degrees, and 12 with Bachelors Degrees. Both volleyball and basketball sports programs are offered at the school. Whitesburg Academy plans on adding 9th grade classes next year, and adding a grade until all twelve grades are represented.

Private Specialty Schools

Several private specialty schools catering to students with special needs are located in the area. The schools provide special assistance to students with learning challenges, and provide a lower student/teacher ratio.

Greengate School

Principal: Ms. Marcia Ramsey

Phone: (256) 721-6592

Web Site: www.greengateschool.org/

Grades Served: 1st -8th Grade

Student/Teacher Ratio: 3:1

Tuition Rates/Year: \$15,000

Greengate School is the only school for children with dyslexia in the Tennessee Valley. The program uses multi-sensory language instruction to help dyslexic children establish the neural patterns for effluent reading, writing, and spelling. The school also incorporates daily, individual language tutoring for every student. Current student enrollment stands at 12 children. The school has 8 highly specialized faculty members. Approximately 6% of the students are from military families.

Huntsville Achievement School

Director: Ms. Carol Heard

Phone: (256) 539-1772

Grades Served: K-9th Grade

Student/Teacher Ratio: 7:1

Tuition Rates/Month: \$415

Huntsville Achievement School provides a specialized learning experience for children with learning disabilities, developmental delays, and for the physically challenged. The school serves a diverse student body of 20 children, with a faculty of 3. All faculty members are certified in special education. The school also offers an after-school program.

Janice Mitchell Isbell Academy

Principal: Ms. Janice Mitchell

Phone: (256) 746-9206

Web Site: www.angelfire.com/al4/isbell_academy

Grades Served: 1st -8th Grade

Student/Teacher Ratio: 8:1

Tuition Rates/Month: \$300

Janice Mitchell Isbell Academy provides educational services for students that dyslexia, central auditory processing disorder, attention deficit disorder, and learning disabilities.

The administrators and faculty strives to accelerate the knowledge, skills, and abilities of the students it serves. The school specializes in teaching students with learning disabilities, or who perform poorly in a traditional classroom environment. Currently, the school plans to construct a new facility within the next three years. A majority of the school's Board of Directors are employed at Redstone Arsenal.

C. Homeschooling

Homeschooling is available to parents as an option. Several "cover schools" operate in the North Alabama area; however, the cover school selected does not have to be local - only located within the State of Alabama. A listing of all available "cover schools" in the State of Alabama can be found at: www.northalabamahomeeducators.freesevers.com.

D. Day Care

There are a multitude of daycare facilities in operation in the area. Currently, there are approximately 90 licensed daycare centers, 109 homes licensed for daycare, and 32 facilities that have been granted special exemptions. The State Department of Human Resources licenses daycare facilities in Alabama.

The Childcare Management Center provides a comprehensive listing of daycare facilities in Madison County. They assist families with State financial aid for daycare services. Clients can directly contact the Center for assistance, or be referred by the Department of Human Resources. The Center can be contacted at (256) 534-5110.

III. Higher Education

The superior quality of educational programs and the intense research and development performed by local students at university and government labs, is fueled by the region's need to produce top-notch graduates to support research and development at a professional level - specifically for DoD and NASA programs.

Area colleges and universities provide a critical mass of students pursuing degrees in science, mathematics, computer science, and engineering. These students, given their incredible exposure and experience through practical applications of scientific and engineering research and software development, are among the best candidates in the country to fill positions in the defense sector. An assessment was conducted of area colleges and universities to determine the intensity of declared majors in computer science, math, physics, and certain engineering fields. The results are shown at **Table 4.1** and **Table 4.2**. The North Alabama region has a large mass of highly qualified and highly educated students that already have experience working in a high-tech environment.

TABLE 4.1
RECENTLY DECLARED MAJORS OF UNDERGRADUATE AND GRADUATE DEGREE CANDIDATES
LOCAL AND REGIONAL COLLEGES AND UNIVERSITIES

Declared Major/Field of Study	Undergraduate Degree Candidates	Graduate Degree Candidates	
Math and Computer Science	73	0	73
Computer Science	748	242	990
Computer Information Systems	53	0	53
Computer Engineering	244	63	307
Information Technology	712	52	764
Software Engineering Certificate	0	1	1
Mathematics	298	30	328
Totals:	2128	388	Grand Total: 2,516
Physics	76	150	226
Applied Physics	14	0	14
Optics	1	0	1
Optical Science & Engineering	32	30	62
Totals:	123	180	Grand Total: 303
Electrical Engineering	528	170	698
Electrical Engineering Tech.	96	1	97
Industrial Technology	79	42	121
Industrial Science & Engineering	58	170	228
Mechanical Engineering	539	68	607
Mechanical Engineering Tech.	32	0	32
Aerospace Engineering	0	35	35
Totals:	1332	486	Grand Total: 1,818
Science	507	0	507
Atmospheric Science	0	35	35
Material Science	0	16	16
Totals:	507	51	Grand Total: 558
<i>Grand Total All Degrees, All Students:</i>			5195

Source: Inquiry of all regional 4-Year and Graduate Degree awarding institutions
Information current as of November 2003

TABLE 4.2
RECENTLY DECLARED DEGREES OF STUDENTS
ATTENDING LOCAL AND REGIONAL
JUNIOR COLLEGES AND TECHNICAL TRAINING INSTITUTIONS

Declared Field of Study	Total Degree Candidates
Industrial Electronics Technology	71
Electrical Technology	53
Computer Information Systems	353
Mathematics	141
IT, Science, Math or Engineering (Breakdown not specified)	180
Grand Total, All Degrees: 798	

Source: Inquiry of all regional Junior Colleges and Technical Degree awarding institutions
Information current as of November 2003

A. Local Colleges and Universities

A location map depicting Huntsville-area institutions is provided at **Map 4.1**.

University of Alabama in Huntsville (UAH)

President: Dr. Frank Franz

Phone: (256) 824-1000

Web Site: www.uah.edu/

Type School: 4-Year Research University

Affiliation: State Institution

Tuition/Semester: \$2,829 for Resident Undergraduate (Based upon 20 hours)
\$5,998 for Non-resident Undergraduate (Based upon 20 hours)

The University of Alabama in Huntsville (UAH) is strategically located near Redstone Arsenal, as well as technology-related companies that, with UAH combine to form one of the nation's largest research parks. Supporting and growing with these entities over the years, UAH has become one of the South's outstanding providers of science and technology related research, and undergraduate and graduate education. These recognized strengths are complemented by excellent undergraduate programs in business, liberal arts, and nursing. UAH has more than 7,000 high quality, highly motivated students from 49 states and 94 countries. With its research activity of more than \$45 million annually, UAH leads Alabama in research in the areas of engineering and physical and information science.

UAH has extensive partnerships with governmental agencies, including the U.S. Army's Aviation and Missile Command, the Army's Space Missile and Defense Command, and NASA's Marshall Space Flight Center. Many of the research centers at UAH were specifically developed to support the needs of their government partners. Specific centers supporting activities of both the U.S. Army and NASA include:

- Information Technology and Systems Center
- Rotorcraft Systems Engineering and Simulation Center
- Systems Management and Production Center (SMAP)
- Propulsion Research Center
- Research Institute
- Aerophysics Research Center
- Center for Applied Optics
- Center for Automation and Robotics
- Center for Materials Research
- Center for Space Plasma and Aeronomic Research
- Consortium for Materials Development in Space
- Earth Systems Science Center
- Laboratory for Materials and Surface Sciences

Additionally, the National Space Science and Technology Center (NSSTC) (www.nsstc.org/) is a research facility with its core facility located on the campus of UAH. It blends the talents and capabilities of NASA researchers with students and

faculty, to develop new technologies that can be used by the space agency as well as transferred to the defense sector.

Cross-Educational Programs with Redstone Arsenal:

UAH has partnered with both the U.S. Army and NASA to provide support to their various missions through research and other activities. Also, the University in partnership with AMCOM, SMDC, and NASA provides Cooperative Education opportunities to UAH students.

SMAP Research to Support AMCOM Missions

The UAH Systems Management and Production Center (SMAP) has approximately 100 people working at AMCOM. These researchers are UAH employees who are located at Redstone Arsenal to directly support AMCOM.

- More than 30 UAH students, who are employed 32 hours a week and pursuing their undergraduate degree, also work at Redstone supporting research efforts. These students are in addition to the University's co-op students.
- Areas of support to AMCOM include:
 - Logistics/supply chain management
 - Continuous improvement, Lean
 - Modeling and simulation
 - Visualization
 - Reverse Engineering
- The UAH Systems Management and Production Center (SMAP) developed a virtual model of the UH60 Black Hawk helicopter and incorporated that model into a complex training package. The UH60 Interactive Multimedia Instruction (IMI) package will be used at Ft. Eustis, Virginia to train soldiers in the proper methodologies to maintain and support the Black Hawk.
- Another impressive accomplishment was the development of an innovative method to disseminate *Safety of Flight (SoF)* alerts to soldiers. The Army teamed with the SMAP to create a multi-media, interactive CD using photorealistic 3D models and animations to illustrate to aviation support personnel proper and specific maintenance techniques of the CH47 (Chinook) helicopter. In this process, a new methodology for improving the safety of the military's fleet of helicopters was created. SMAP staff delivered the first draft of the software package within one week, and the final CD version at the end of two weeks. Over 200 CDs were distributed within a two-week period.

Cooperative Education (Co-op)

UAH students participate through a co-op program, to provide support to Redstone Arsenal missions. During 2003, 26 students were employed at AMCOM, 8 were employed at the Army Corp of Engineers, 10 were employed at NASA, and 2 were employed by the SMDC. Many students also co-op with local defense contractors.

Additional University Highlights

With more than 2000 colleges and universities across the United States, only one in nine can be classified as a "national" university. The University of Alabama in Huntsville is

in that special category. UAH is also the only public university in Alabama ranked "very competitive" by **Barron's Profiles of American Colleges**. In addition:

- UAH has been named as one of "America's 100 Best College Buys" for seven consecutive years.
- UAH ranks among the top 20 universities in the nation for awarding bachelor's engineering degrees to women.
- UAH ranks 6th in the nation in NASA funding to universities.
- UAH performs over \$45 million a year in sponsored research. Many UAH undergraduates work on these projects.
- UAH is home to the National Space Science and Technology Center, a national research laboratory consortium.
- UAH students come from 47 states and 97 countries around the world.
- The undergraduate male/female ratio at UAH is 50/50.

Sports programs are available to students at the University. UAH boasts 14 intercollegiate sports including the south's only NCAA Division I ice hockey program. Along with hockey, UAH competes in volleyball, baseball, softball and men's and women's soccer, cross country, track, basketball, and tennis. With the exception of ice hockey, UAH is a member of one of the nation's most competitive conferences, the Gulf South Conference. The UAH ice hockey team competes in the NCAA Division I College Hockey America Conference. Prior to moving to Division I status, the UAH ice hockey team captured the NCAA Division II national championship in 1996 and 1998 and was national champion runner-up in 1995 and 1997.

A variety of student housing and special amenities are available on campus.

Alabama A&M University

Interim President: Dr. Virginia Caples

Phone: (256) 372-5000

Web Site: www.aamu.edu/

Type School: Doctoral Intensive, Research-Oriented Historically Black University
Affiliation: State Institution

Tuition/Semester: \$2,865 plus \$265 fees for Resident Undergraduate (20 hrs)
 \$5,465 plus \$265 fees for Non-resident Undergraduate (20 hrs)
 \$2,250 plus \$265 fees for Resident Graduate (10 hrs)
 \$4,239 plus \$265 fees for Non-resident Graduate (10 hrs)

Alabama A&M University is a historically black, land grant university. The University offers a variety of degrees through five schools with significant program areas. Alabama A&M has a total enrollment of 6,588 diverse students, and a faculty of 387 members. The student body is comprised of young adults from approximately 43 different states, and draws many international students.

Alabama A&M University has been supporting north Alabama with educational opportunities since it opened its doors in 1875. For four consecutive years, the university

placed students on the coveted academic teams of USA today. It was also named one of the Top 50 schools nationwide for African Americans by Black Enterprise magazine.

The University rounds out its academics with various sports programs to include: football, baseball, basketball, bowling, cross country/track and field, golf, soccer, tennis, and volleyball.

Partnership with Redstone Arsenal

Alabama A&M has had a strong relationship with Redstone Arsenal since at least 1978, and supports Army initiatives through cooperative education programs and scientific research.

Cross-Educational Programs with Redstone Arsenal

Alabama A&M and Redstone have had a partnership for many years, and each have been mutually supportive of the University's and the Army's mission.

Cooperative Education (Co-op):

The co-op relationship with Redstone Arsenal has been in effect for approximately 25 years. Through the co-op program, the students work on the Arsenal's Aviation and Missile Command (Acquisition, Logistics, RDEC, RTTC), Space and Missile Defense Command, and NASA. The primary majors are electrical and mechanical engineering, computer science, business administration, logistics, accounting, finance, and management.

Other Support

In addition to co-op opportunities, the University has received support from AMCOM.

- Staff from both AMCOM and SMDC have participated in Executive Roundtable discussions sponsored by the University.
- Various Redstone Arsenal/US Army officials have served as past members of the University's Mechanical Engineering Advisory Board and Electrical Engineering Advisory Board.
- The Alabama A&M University Research Institute received a federal appropriation in the amount of \$925,000 for infrastructure support from the U.S. Department of Defense via the SMDC in December 1999.
- A representative from AMCOM is on the Physics Department Advisory Board

Research to Support DoD/Army and NASA Initiatives

Alabama A&M University scientists and students have participated in many research and development projects to support DoD/Army initiatives as well as those of NASA.

- Between 1999 and 2002, Alabama A&M University was awarded government contracts with AMCOM in excess of \$764,000 for specialized research and support to enhance AMCOM's mission.

- Between 1999 and 2002, Alabama A&M University was awarded government contracts with NASA in excess of \$849,000 for specialized research and support to enhance NASA's mission.
- Between 1998-2002, funding was received from the Department of Defense in excess of \$2.9 million to support research and development initiatives. During the same time period, approximately \$6.3 million was received by the University to support NASA research and development.
- The University's computer science students in the past have developed viable and cost effective software for US Army Missile Command.

On-going Research Support

- Ongoing research to support both Redstone Arsenal and NASA has been funded. These research initiatives involve applications of fiber-optic technology for applications of interest to AMCOM as well as NASA.
- Alabama A&M research scientists are working on varied projects for the Department of Defense, including the development of flight simulation software.

Additionally, Alabama A&M University is a research partner in the National Space Science & Technology Center (NSSTC).

Oakwood College

President: Dr. Delbert Baker

Phone: (256) 726-7000

Web Site: www.oakwood.edu/

Type School: Four-Year Liberal Arts College

Affiliation: Private Institution – Seventh Day Adventist Faith

Tuition/Semester: \$5,056 during 2003/2004 session. Contact Financial Affairs at 256-726-7408 for updated tuition information.

Oakwood College is a four-year liberal arts college offering bachelors degrees in various fields. Some representative majors are: math and computer science, biological sciences, chemistry, math, computer science, and computer information systems. The college has a total enrollment of 1,787 students, and a faculty of 163 members. A variety of student housing is available on campus. The college ranks among the nation's top 15-20 colleges and universities providing black applicants to medical schools.

Partnership with Redstone Arsenal

Oakwood College's relationship with Redstone Arsenal is primarily focused on NASA-related research and development. Students are heavily involved in collaboration on NASA research projects through research grants and special partnerships.

Some examples follow:

- The college recently purchased a building to house Oakwood College Industries, including a NASA fabrication factory. Additionally, a Minority Explorers Program (MEP) has employed students as NASA liaisons.
- Oakwood students recently completed a project involving the development of ultra-light normal incidence mirrors. Students were involved in developing a replicated optic and developed the capability of producing applications of it in science, industry, and defense.
- Students are also heavily involved with the NASA's ***Minority Students Development in Science and Engineering (MISE)*** program. Through this program, students participate in research at NASA's Marshall Space Flight Center.
- NASA's ***Partnership Award for the Integration of Research (PAIR)*** serves to increase the number of students who are prepared for advanced degrees in NASA related fields, increase the research infrastructure and modernize teaching methods, and increase faculty and student participation in projects that foster collaborative inquiry.

UAB School of Medicine, Huntsville Regional Medical Campus

Acting Associate Dean: Dr. Robert Centor

Phone: (256) 539-7757

Web Site: www.huntsville.uab.edu

Type School: Medical School and Residency

Affiliation: State Institution

Tuition/Year: \$8,886 In State (2003 tuition rates)

\$26,000 Out of State (2003 tuition rates)

Call UAB at 205-934-2433 for updated tuition rates

UAB - Huntsville is a branch of the University of Alabama School of Medicine. The university provides training for junior and senior medical students in the clinical disciplines of medicine. Over 300 North Alabama physicians serve as members of UAB's volunteer faculty. Current enrollment is 60 full-time students. The family residence program trains 12 residents per year in its 3-year program. A Sports Medicine Fellowship and an OB Fellowship are also offered after completion of the residency. The university recently completed construction of a 93,000 square foot medical school and clinic. New programs include a planned Center for Family Health and the North Alabama Health Education Consortium.

Faulkner University

Director: Ms. Barbara Gamble

Phone: (256) 830-2626

Web Site: www.faulkner.edu/

Type School: Four-Year College
Affiliation: Private University - Church of Christ Faith

Tuition/Hour: \$205

Faulkner University is based in Montgomery, Alabama, but provides degree programs in Huntsville through its satellite campus. It is a private institution catering to the working adult. Class schedules allow students to work full time while pursuing a degree. The university offers both associates and bachelors degrees. Associates degrees offered include Business Administration, Criminal Justice, Business Information Systems, Legal Studies, and Liberal Arts. Bachelors degrees offered include Business Administration, Criminal Justice, and Management of Human Resources.

Calhoun Community College

President: Dr. Marilyn C. Beck
Phone: (256) 890-4700 (Huntsville campus)
Web Site: www.calhoun.edu/

Type School: Two-Year Community College
Affiliation: State Institution

Tuition/Hour: \$95 for In-State Residents
\$166 for Out-of-State Residents

Calhoun Community College is Alabama's largest two-year college, serving students of North Alabama at three separate campuses. The college, headquartered in Decatur, Alabama, provides coursework at Redstone Arsenal, and at the Huntsville Campus located at Research Park. It is the only two-year college in the United States with a campus located in a research park. Of the total 9,046 students enrolled, 2,541 are enrolled at the Huntsville Campus, and 509 are enrolled at Redstone Arsenal. The college has a faculty of 418 members.

Calhoun College has state and nationally recognized programs in Dental Assisting, Nursing, Surgical Technology, EMT, Design Drafting, Air Conditioning, and Machine Tool Technology.

During 2000, Calhoun College received the Ray Ehrensberger College of the Year Award presented jointly by the Commission on Military Education & Training and the Council of College and Military Educators. The college's academic program at Redstone Arsenal was singled out for having served "on the cutting edge in blending military workplace learning with a college degree program for soldiers." Calhoun College was recognized for "its active outreach to soldiers that is indicative of the college's broader dedication to adult learners in general wherever they may be located."

Partnerships with Redstone Arsenal

Calhoun College, in cooperation with the US Army Ordnance Missile and Munitions Center and School (OMMCS), provides a specialized Associate in Applied Science degree for graduates of the missile programs controlled by Redstone Arsenal. The Missile Munitions and Technology (MMT) program provides the use of the military specific

portion of the training for up to 42 semester hours of credit. This program allows career military personnel to earn college credit through a combination of civilian and military education. Students can select from three certifications: Basic Level, Calibration Specialist, or Technical Management.

J.F. Drake State Technical College

President: Dr. D. Helen McAlpine

Phone: (256) 551-3117

Web Site: www.drakestate.edu/

Type School: Two Year Technical College

Affiliation: State Institution

Tuition/Year: Information Not Available

J.F. Drake State Technical College is the only public technical college in the Tennessee Valley. Approximately 1,000 students attend the college in a variety of technical professions including: Practical Nursing, Drafting and Design Technology, Cosmetology, Industrial Electronics, and Computer Information Systems Technology. Other two-year programs include: Accounting, Office Administration, Air Conditioning and Heating, Automotive Mechanics, Industrial Electricity, Graphics and Printing Communication, Machine Tool and Welding. Students who desire short-term classes in specialized areas may enroll in the Continuing Education division. Authorized academic training in the field of Information Technology is offered through the MicroSoft and CISCO labs on the college's campus. In addition to the traditional bricks and mortar locations, Drake State Technical College also offers internet-based classes through the Business Department.

The faculty consists of 47 full-time and 21 part-time instructors. Eighty-six percent of full time instructors hold a Masters degree, and sixty-six percent of part-time instructors hold a Masters Degree or higher.

Relationship with Redstone Arsenal

Five of Drake State Technical College's students are employed at Redstone Arsenal, and three are employed by defense/aerospace contractors. Four students are currently involved in a co-op program at Marshall Space Flight Center to provide NASA with high-achieving engineering, administrative, and information technology.

B. Colleges and Universities - Located on Redstone Arsenal

Redstone Arsenal is a participant in the Army Continuing Education System (ACES), and provides five colleges and universities on-post to serve the needs of active duty military personnel, their families, and DoD civilian employees at Redstone. Class times and condensed semesters (minimesters) are structured to meet the needs of an adult working population.

All colleges and universities on-post are affiliated with the Servicemember Opportunity Colleges Network (SOC). Other institutions that are affiliated with the SOC Network will accept college credits from the educational facilities at Redstone. This insures that

Army students and their family members can continue their education and complete degree programs, even though the Army may transfer them several times.

Colleges and universities available on-post are: Athens State University, Calhoun Community College, Columbia College, Embry-Riddle University, and Florida Institute of Technology. At the present time, Redstone ACES representatives are negotiating with both Auburn University and Oakwood College to bring degree programs on-post.

Both Calhoun College and Athens State University have campuses in the region, and are discussed in depth elsewhere in this chapter. A review of the remaining on-post colleges and universities follows:

Athens State University

President: Dr. Jerry Bartlett

Redstone Arsenal Point of Contact: Mr. Denver Betts

Phone: (256) 876-7561

Web Site: www.athens.edu

Type School: Upper Division Two-Year Liberal Arts College

Affiliation: State Institution

Tuition/Hour: \$387 for 3 Hours; In-State Residents

For more information, refer to Athens State College under section III.D. of this Chapter.

Calhoun Community College

President: Dr. Marilyn C. Beck

Redstone Arsenal Point of Contact: Mr. John Lybarger

Phone: (256) 876-7431

Web Site: www.calhoun.edu

Type School: Two-Year Community College

Affiliation: State Institution

Tuition/Hour: \$95 for In-State Residents
\$166 for Out-of-State Residents

Detailed information concerning Calhoun Community College's coursework and relationship with Redstone Arsenal can be found at part B.1. of this section.

Columbia College

Redstone Arsenal Point of Contact: Ms. Mary Morgan

Phone: (256) 881-6181 or (256) 876-4851

Web Site: www.ccis.edu/

Type School: Four-Year College

Affiliation: Private Coeducational Institution

Tuition/Hour: \$120 for On-Campus Courses
\$195 for Distance Education (\$585 per course)

Columbia College is a private comprehensive institution offering career-oriented academic programs, strongly centered in the liberal arts. Columbia's main campus is located in Columbia, Missouri and offers extended studies through 27 campuses. Columbia has had a relationship with Redstone Arsenal for 30 years. Over 200 students employed by Redstone Arsenal attend classes at Columbia. The college began offering an MBA in 2004.

Embry-Riddle Aeronautical University/Huntsville Center

Redstone Arsenal Point of Contact: Ms. Christy Pinero

Phone: (256) 876-9763

Web Site: www.ec.erau.edu/apps/wwc/centerinfo.cfm?code=F3

Type School: Four-Year College, Aviation-Aerospace Oriented

Affiliation: Private Non-Profit

Tuition/Hour: \$184 Undergraduate Classroom Instruction & Distance Learning
\$286 Graduate Classroom Instruction
\$368 Graduate Distance Learning

The Embry-Riddle Aeronautical University/Huntsville Center opened in May 2003 as part of the Embry-Riddle extended campus. Embry-Riddle operates approximately 130 centers throughout the United States and Europe, and an internet based Distance Learning program. The Huntsville Center offers degrees in Aeronautical Science, Technical Management, Professional Aeronautics, and Aircraft Maintenance Technology.

Florida Institute of Technology

Redstone Arsenal Point of Contact: Mr. Jack Macris

Phone: (256) 881-7878 or 876-1581

Web Site: www.fit.edu/ or www.segs.fit.edu/redstone/

Type School: Graduate School

Affiliation: Private Non-Profit

Tuition/Hour: \$300 per hour/\$900 per course
\$415 per hour/\$1245 per Distance Learning course

Florida Institute of Technology (FIT) is an independently controlled and supported university offering graduate course work and professional development programs at its extension on Redstone Arsenal. FIT has provided graduate education in business and management at its Redstone extension since 1976. It offers masters level degrees in 25 disciplines. Students can take advantage of traditional classroom instruction or distance learning. Enrollment stands at 400 students, with 250 being employed directly by Redstone Arsenal.

C. Specialized Defense-Related Universities

Defense Acquisition University- South Region

Phone: (256) 722-1001

Web Site: www.dau.mil/

Type School: DoD Corporate University

Affiliation: Department of Defense

Tuition/Hour: None

Defense Acquisition University - South Region, provides Redstone Arsenal and other Southeastern U.S. acquisition, technology, and logistics workforce members with the training required to become a certified professional. Training is offered at no cost to the Redstone community, both in the distance learning and classroom modes. During 2003, training was provided for 14,000 students - 4,000 of whom were Redstone employees. The facility offers a Learning Resource Center, a fitness center, and nearby shopping and dining options.

D. Regional Colleges and Universities

Athens State University

President: Dr. Jerry Bartlett

Phone: (256) 233-8129

Location: Athens, Alabama

Web Site: www.athens.edu/

Type School: Upper Division Two-Year Liberal Arts College

Affiliation: State Institution

Tuition/Hour: \$387 for 3 hours, In-State Residents

Athens State University is an upper division, two-year, degree granting institution. The school is intended primarily to provide coursework at the junior and senior year level. Its charter from the Alabama College System is to serve graduates of state junior, community, and technical colleges. Athens State University is based in nearby Athens, Alabama, but has served the Redstone Arsenal Community for 28 years through an on-post extension. The university has broadened that concept and is in the process of establishing other extensions in other communities in North Alabama. Athens State University is based in nearby Athens, Alabama, and has an extension at Redstone Arsenal. Current university-wide enrollment is 2,486 students.

The University of North Alabama

President: Dr. William G. Cale, Jr.

Phone: (800) TALK-UNA

Location: Florence, Alabama

Web Site: www.una.edu/

Type School: Regional University - Master's Level
Affiliation: State Institution

Tuition/Hour: \$143 Undergraduate, In State
\$143 Undergraduate, Out of State
\$168 Graduate, In State
\$168 Graduate, Out of State

The University of North Alabama (UNA) is a regionally accredited, comprehensive state university. The campus is over 130 acres located in a residential section of Florence, Alabama. State-of-the-art computer labs are located throughout the campus and world-wide web access is available to all students and faculty.

UNA supports more than 110 student organizations including honor societies, departmental student organizations, service clubs, the Student Government Association, special interest groups, fraternities and sororities, and religious organizations.

The campus has a total enrollment of 5,630 students, and a faculty of 276. Student housing is available, both on and off campus. Varsity sports are offered in football, basketball, baseball, tennis, golf, cross-country, volleyball, softball, and soccer.

Sewanee: The University of the South

President: Dr. Joel Cunningham

Phone: (931) 598-1000

Location: Sewanee, Tennessee

Web Site: www.sewanee.edu/

Type School: Four-Year Liberal Arts College
Affiliation: Private Institution, Episcopal Faith

Tuition/Year: \$34,645 (plus room and board)
\$13,580 (School of Theology)

The University of the South, commonly referred to as Sewanee, is a four-year liberal arts college offering bachelors degrees in fields of arts and sciences. It also contains a School of Theology, offering master's and doctoral degrees in theology. Some representative majors are: math and computer science, forestry, geology, biology, chemistry, environmental studies, and physics. The campus has a total enrollment of 1,365 students, and a faculty of 137 members. Previous students of the University include 24 Rhodes Scholars, 25 NCAA Post-Graduate Fellows, and dozens of Watson Fellowship and Fulbright Scholarship recipients. The average freshman class size is 19 students, and the average upper-level class size is 13 students.

The faculty has won prestigious awards, such as two Carnegie Foundation Tennessee Teacher of the Year Awards, two Guggenheim Fellowships, and a Fulbright Fellowship. The University has received research grants in the past from the National Science Foundation and the Environmental Protection Agency.

Student housing is available, as well as rental apartment housing for married students. Varsity sports are offered in football, baseball, track and field, volleyball, equestrian, softball, soccer, field hockey, and more.

Motlow State Community College

President: Mr. Arthur J. Walker

Phone: (800) 654-4877

Location: Lynchburg, Tennessee

Web Site: www.mscc.edu/

Type School: Two-Year Community College

Affiliation: State Institution – State of Tennessee

Tuition/Hour: \$106/Hour for In-State Residents
(*Madison Co. residents can attend for In-State tuition.*)
\$384 for Out-of-State Residents

Motlow State Community College is a two-year community college, with campuses located in nearby Lynchburg and Fayetteville, Tennessee. The campus has a total enrollment of 3,426 students, and a faculty of 197 members. It is a "commuter" campus, and does not have available student housing.

Motlow State offers 2-year degrees to students planning to transfer, 2-year career education degrees, 1-year certificates for students immediately planning to enter the workforce, non-credit courses in workforce development, and non-credit community service classes.

IV. Unique Educational Opportunities and Specialty Programs

Because of the region's partnership with Redstone Arsenal and with NASA, many educational opportunities and initiatives have evolved to enhance the level of research being conducted at local government labs, and to build a quality future workforce in the fields of science, mathematics, and engineering. These educational opportunities support learning from elementary school grades to the post-doctorate level. Several of these opportunities that are unique to the area, and sometimes the United States, are explored in this section.

A. National Space Science and Technology Center

Interim Director: Dr. Ann Whitaker

320 Sparkman Drive

Huntsville, Alabama 35805

Phone: (256) 961-7002

Web Site: www.nsstc.org

The National Space Science and Technology Center (NSSTC) is a research organization with its core facility located on the campus of the University of Alabama in Huntsville (UAH). A partnership between NASA's Marshall Space Flight Center, UAH, Alabama A&M University and other state research universities, federal agencies, and industries, the Center is a laboratory for cutting-edge research in selected scientific disciplines. Not only does the NSSTC enable cutting-edge basic and applied research, it also fosters the

education of the scientists and engineers. Undergraduate and graduate students participate in the cooperative research and experience is provided for educators. It is the only facility of its kind in the country. Of approximately 400 researchers, roughly half are government civil servants, and half are from academic institutions.

The founding members of the NSSTC were NASA, the State of Alabama, University of Alabama in Huntsville, Alabama A&M University, the University of Alabama, the University of Alabama in Birmingham, University of South Alabama, Tuskegee University, and Auburn University. The partnership was developed among these entities to provide mutual benefits to government and academia. Government organizations benefit through an increased scientific productivity by leveraging resources, gain a richer scientific yield by sharing expertise through partnering, and receive more effective outreach and education efforts by uniting knowledge generation and education. Academia benefits through enriched educational opportunities for faculty and students, the provision of unique teaming opportunities for multi-disciplinary research, opportunities from investment/seed funds, and through student involvement in research.

The NSSTC operates seven different research centers at one location. These labs have very different missions and goals, but provide a massive amount of concentrated brainpower in one facility. The research centers are:

- Information Technology Research Center
- Global Hydrology and Climate Center
- Space Science Research Center
- Information Technology Research Center
- Propulsion Research Center
- Advanced Optics and Energy Technology Center
- Biotechnology Research Center
- Material Science Research Center

While NASA's main Information Technology Research Center (ITRC) is located in Ames, California, the Huntsville Center is actively involved in research at two labs in the NSSTC facility. A brief overview of the ITRC is provided.

Information Technology Research Center (ITRC) Laboratories at NSSTC

The University of Alabama in Huntsville Information Technology Research Center (ITRC) has two research laboratories at the National Space Science and Technology (NSSTC), a Distributed Testbed Laboratory and an Advanced Computational Methods Laboratory. These laboratories, along with other laboratories at the Information Technology and Systems Center (ITSC) at UAH, provide computational and data resources with geographically distributed resources for an optimal Information Technology (IT) research environment. Computing resources in the ITRC laboratories include an Intel-based 24-node linux cluster with two 2.6GHz processors per node, a Fast Ethernet backplane and a terabyte of storage local to the cluster, as well as a distributed large-volume Network Attached Storage (NAS) system, many server-class systems, several large Redundant Arrays of Independent Disk (RAID) storage systems, and user workstations representing a variety of operating system configurations.

The **Advanced Computational Methods Laboratory** is a 320 square foot laboratory that provides a heterogeneous mix of computational systems used for the research and development of data mining tools, techniques and environments, data interchange technologies, and the next generation of data management, models and metadata. This laboratory has limited access control, and has raised flooring and dedicated circuits to support cabling and cooling requirements for equipment.

Through the **Distributed Testbed Laboratory**, ITSC is able to provide environments for testing complex computational and advanced networking applications. These environments provide key ingredients for research in large-scale distributed data services and the concepts and technologies associated with performing applications in geographically distributed domains. In the 320 square foot Distributed Testbed Laboratory, researchers are actively researching cluster and grid technologies and advanced networking technologies in connection with several NSF-funded projects, including the TeraGrid project (<http://www.teragrid.org>), the NMI (National Middleware Initiative) Test Bed Program, the Linked Environment for Atmospheric Discovery (LEAD) project, as well as several NASA projects and other programs requiring distributed services and web technologies for scientific processing solutions. This laboratory has limited access control and dedicated circuits to support computational equipment, and houses workstations and work areas for student workers.

Through all of its research centers and associated labs on site, the NSSTC can provide the following capabilities:

- Comprehensive research capability and expertise
- End-to-end program and project formulation and management
- Systems engineering
- Technology application
- Flight systems development
- Flight operations
- Data analysis

The research performed by the NSSTC ranges from pure science to technology development - with spacecraft, sounding rockets, balloons to aircraft, as well as laboratory experiments being used to perform this research.

The capabilities of the center as well as the caliber of research being conducted in advanced computing, propulsion, aeronautics, atmospheric research, and other activities yields new and emerging technologies and methods that can be transferable to the defense sector.

B. Globe in Alabama

C/O: National Space Science and Technology Center
320 Sparkman Drive
Huntsville, AL 35805
Phone: (256) 961-7738
Web Site: www.globe.uah.edu/

The GLOBE program is a hands-on environmental science and education program that unites students, educators, and scientists from around the world in making important environmental measurements and studying the global environment.

GLOBE students make a core set of environmental observations at or near their schools and report their data via the Internet. Scientists use GLOBE data in their research and provide feedback to the students to enrich their science education. Each day, images created from the GLOBE student data sets are posted on the World Wide Web, allowing students and visitors to the GLOBE web site to visualize the student environmental observations.

Age-appropriate GLOBE educational materials have been developed by international environmental educators for use in GLOBE schools. GLOBE teachers receive special training on teaching the measurement procedures, using GLOBE images as instructional materials, participating in GLOBE using Internet technology, and creating partnerships among students at GLOBE schools around the world.

The GLOBE program in Alabama was established in 1997, and is administered by NASA's National Space Science and Technology Center, located in Huntsville, Alabama. Operational funding for GLOBE in Alabama has been provided by the University of Alabama in Huntsville's Earth System Science Center, the NASA Marshall Space Flight Center, the Alabama Space Grant Consortium, the Alabama Department of Economic and Community Affairs, the Alabama State Department of Education, and Legacy, Inc.

Schools from the Huntsville City School System are active participants in this program.

- C. Alabama Math, Science, and Technology Initiative (AMSTI)
Institute for Science Education, Shelbie King Hall
188 Sparkman Drive
The University of Alabama in Huntsville
Huntsville, Alabama 35899
Phone: (256) 824-6156
Web Site: www.amsti.org

The Alabama Math, Science, and Technology Initiative (AMSTI) has a state-wide focus of providing inquiry-based teaching and learning of math and science for grades K-12.

The project is supported through a grant from the Alabama Department of Education. It provides for professional development for all teachers in the selected schools through two week Summer Institutes. Curriculum materials are then provided at no additional cost to the school districts thereafter. The University of Alabama in Huntsville (UAH) was the first recipient of the State grant, and was among the first to begin the program in the State of Alabama. UAH coordinates professional development for the program and refurbishes curriculum materials. While the Alabama State Department of Education provides the funding to support the direct costs of AMSTI activities, UAH provides direction, administrative support, and considerable space for training and materials as a public service to the program.

- D. NASA's Marshall Space Flight Center Education Programs
C/O: National Space Science and Technology Center
320 Sparkman Drive
Huntsville, AL 35805
Phone: (256) 961-7506
Web Site: <http://education.msfc.nasa.gov/>

NASA's Marshall Space Flight Center (MSFC) actively supports educational initiatives in the regional community by providing assistance to teachers and faculty, inspiring and encouraging the educational development of students, and by facilitating the development of instructional products. NASA's MSFC efforts are assisted by established partnerships with educational institutions, industries, and other government agencies. The local efforts are extremely far-reaching and the educational programs offered to area students and educators are too extensive to list in this document. Readers would be best served to visit NASA's Marshall Space Flight Center Education Programs website (<http://education.msfc.nasa.gov/>) for a complete review of available opportunities.

- E. Alabama Council for Technology in Education, Northwest Region
Williams Technology Middle School
Phone: (256) 428-7540
Web Site: www.hsv.k12.al.us/schools/acte

The purpose of the Alabama Council for Technology in Education (ACTE) is to advance and promote the application of educational technology at all levels of instruction. The ACTE Northwest Region is comprised of schools in Colbert County, Cullman County, Franklin County, Lauderdale County, Lawrence County, Limestone County, Madison County, Marion County, Morgan County, and Winston County.

The Northwest Regional organization sponsors an annual technology fair and competition usually in March. Students from grades K through 12 can compete in categories of information technology, computer programming, general applications, hardware: robotics, multimedia, video production, webpage design, and a team programming challenge. Winners proceed to the State ACTE Fair in May.

- F. US Space and Rocket Center - Space Camp
Director: Ret. BG Larry P. Capps
1 Tranquility Base
Huntsville, Alabama 35805
Phone: (256) 837-3400
Web Site: www.spacecamp.com

Tuition: \$299 - \$799, depending upon program selected. Visit web site for breakdown.
Scholarships are available, and Military Families receive a 10% discount.

Space Camp uses the excitement of space exploration to motivate students (grades 4-12) to study math, science, technology, and engineering. A companion program, Aviation Challenge, uses the same format of aviation and pilot training to accomplish the same goals of inspiring the next generation to be prepared for the technological challenges of the future. Space Camp's proximity to Redstone Arsenal and NASA's Marshall Space Flight Center creates a special educational environment that makes this possible.

During 2003, 35,689 students attended Space Camp, and 416 teachers attended. A week at Space Camp is part of the award for the National Teacher of the Year and for the Teachers of the Year selected from the 50 states and U.S. territories.

In addition to grants from NASA and corporate foundations, local industries and businesses partner with Space Camp. During 2002, the US Space and Rocket Center

received over \$980,000 in donations from industries, businesses, and professional organizations.

G. Sci-Quest: Hands-on Science Center

Director: Mr. J.D. Horne

102-D Wynn Drive

Huntsville, Alabama 35805

Phone: (256) 837-0606

Web Site: www.sci-quest.org

Admission: \$7.00 adults, \$6.00 children

Hours of Operation: Tue-Fri: 9 am to 4 pm,

Sat.: 10 am to 6 pm

Sun.: 1pm to 5pm

Sci-Quest is located in a 40,000 square foot facility within America's second largest research park. It boasts more than 150 interactive exhibits covering areas of science such as engineering; electricity and magnetism; world ecosystems and weather sciences; fluid dynamics; physiology; waves, light and sound; chemistry and material sciences; and early childhood education. Sci-Quest is committed to staying at the forefront of science education by continually evaluating exhibits and programs and adding new educational components.

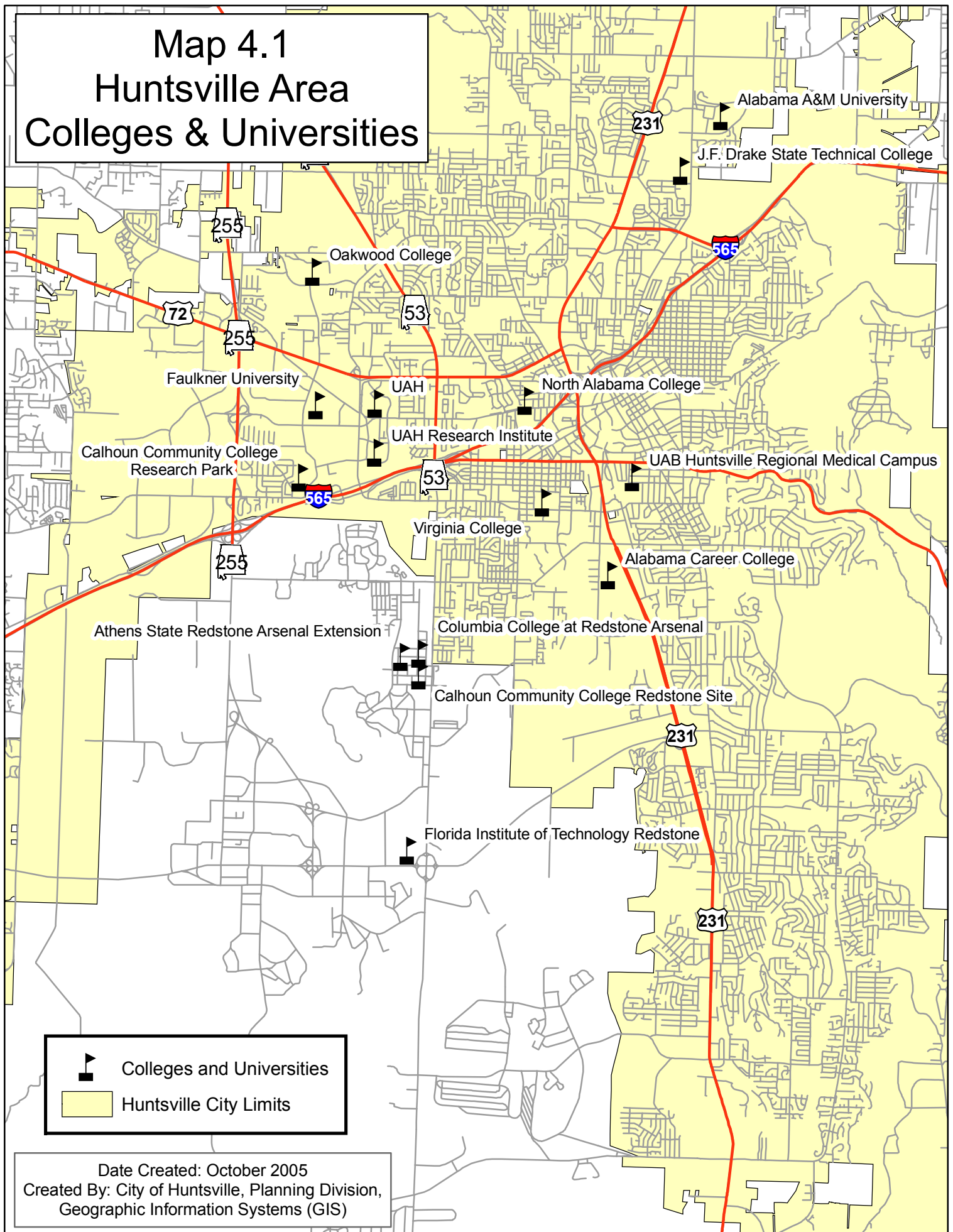
Since the summer of 2001, Sci-Quest has offered more than 336 public educational programs for children ages 4-12. Camps are also offered for children. The science museum also has an extensive offering of outreach programs that take science on the road to schools, churches and childcare centers. Instead of using a traditional classroom format, Sci-Quest's science educators use interactive demonstrations and hands-on experiments to enhance the audience's experience.

In addition to its regular programs, Sci-Quest hosts a program each February, which features speakers from Redstone Arsenal and NASA providing area 6th graders with information about technical career options.

The Huntsville area provides unique opportunities for educational development at all levels. High quality educational programs and special partnerships exist among area schools, Redstone Arsenal, the US Army, and NASA to develop and support a future science, math, engineering, and technology-driven workforce.

These partnerships, combined with specialty programs and consortiums fostering education in our community's youth and adults, make the Huntsville area a center for educational excellence focused on providing innovative experiences in training the upcoming and imminent workforce.

Map 4.1 Huntsville Area Colleges & Universities



Date Created: October 2005
Created By: City of Huntsville, Planning Division,
Geographic Information Systems (GIS)

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CITY OF HUNTSVILLE HEALTHCARE RESOURCES QUICK FACTS

Huntsville is recognized as the regional medical provider for specialty medical services. This is based upon the number of physicians and the specialties available, as well as the quality of healthcare available at Huntsville's state-of-the-art medical facilities.

The area's commitment in providing quality healthcare services is also evident through educational opportunities provided to students pursuing medical careers. Huntsville is the site of the UAB School of Medicine - Huntsville Regional Campus. The campus provides training for 3rd and 4th year medical students. Students also pursuing professional careers in Nursing can receive bachelors and masters degrees in the field at the University of Alabama in Huntsville.

Additional healthcare specialty resources are available, if necessary, only two hours away. Specialized healthcare resources in Birmingham, Alabama and in Nashville, Tennessee are recognized to be the best in the Southeastern United States.

Huntsville area hospitals and clinics provide specialized medical treatment to their patients. Many facilities have expanded or are expanding their facilities and services to accommodate the needs of a growing patient base.

While the provision of routine and specialized medical treatment is necessary to create healthy communities, the Madison County Health Department has a vital role in protecting the public's health. This is done through the department's many programs. The department is presently constructing a new facility near downtown Huntsville, that will allow better efficiency of program delivery and may allow additional programs to be offered.

Huntsville area hospitals not only provide specialized and emergency medical services, but have received training in handling community emergencies - especially involving a chem/bio event. Both hospitals, as well as Fox Army Health Center, are involved in the Metropolitan Medical Response System (MMRS). The medical and emergency response communities in the Huntsville area have been organized to treat up to 1,000 persons exposed to chemical agents, and up to 10,000 persons exposed to biological agents. Local capabilities have been exercised, to ensure an integrated and unified response to such events.

The medical community in the Huntsville area is top-notch, and has proven to be prepared to handle the routine daily case management of patients, as well as real and potential community emergencies.

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SECTION 5 CITY OF HUNTSVILLE HEALTHCARE RESOURCES

I. General Overview

The Huntsville area healthcare community is committed to providing quality healthcare services in the North Alabama and Southern Tennessee region. While general medical support is available in other area cities, Huntsville is the regional center for specialized healthcare services. The availability of these exceptional and highly specialized services coupled with healthcare professionals dedicated to continually improving healthcare delivery has made Huntsville the regional leader in medical care and support. In this chapter, an assessment of healthcare specialties and the facilities that provide support to the regional population will be examined.

II. Physicians and Specialties

A. Huntsville-Madison County Area

According to the latest information available from the Alabama Department of Public Health's Center for Health Statistics, Huntsville-Madison County provides the region with more physicians per 10,000 population than the Alabama State average. According to the Madison County Medical Society, a professional organization that maintains information concerning local physicians, there are 769 physicians in the Huntsville community. This translates into 2.69 physicians per 1,000 population. There are various specialties represented. Table 5.1 provides a comprehensive listing of these specialties.

**TABLE 5.1
HEALTHCARE SPECIALTIES
HUNTSVILLE-MADISON COUNTY**

Allergy	Oncology	Radiation Oncology
Anesthesiology	Ophthalmology	Radiology
Cardiology	Orthopedics	Rheumatology
Colon/Rectal Surgery	Otolaryngology	Surgery - Cardiothoracic
Dermatology	Pain Management	Surgery - General
Emergency Medicine	Pathology	Surgery - Neurology
Endocrinology	Pediatric Orthopedic Surgery	Surgery - Ophthalmology
Family Practice	Pediatric Otolaryngology	Surgery - Oral/Maxillofacial
Gastroenterology	Pediatric Allergy	Surgery - Orthopedics
Hematology/Oncology	Pediatric Cardiology	Surgery - Plastic
Infectious Diseases	Pediatric Neonatology	Surgery - Thoracic
Internal Medicine	Pediatrics	Surgery - Trauma
Nephrology	Physical Medical Rehabilitation	Surgery - Vascular
Neurology	Psychiatry	Urology
Obstetrics/Gynecology	Pediatric Psychiatry	
Occupational Medicine	Pulmonary	

Not only is the area heavily endowed with specialized physicians - it also produces top-notch physicians through the UAB School of Medicine, Huntsville Regional Medical Campus (www.huntsville.uab.edu/). The university provides training for 3rd and 4th year medical students in the clinical disciplines of medicine. Clinical specialties offered are: family practice, internal medicine, pediatrics, OB/Gyn, psychiatry, and general surgery. Over 300 North Alabama physicians serve as members of their volunteer faculty. The family residence program trains 12 residents per year in its 3-year program. A Sports Medicine Fellowship and an OB Fellowship are also offered after completion of the residency. The University recently completed construction of a 93,000 square foot medical school and clinic. New programs include a planned Center for Family Health and the North Alabama Health Education Consortium.

Additionally, the University of Alabama in Huntsville produces many of the area's professional nurses. The University provides both bachelors and masters degrees in the field.

The Huntsville area is fortunate to have the students and faculty of the UAB School of Medicine-Huntsville Regional Campus and the graduates of the UAH School of Nursing as regional partners in healthcare services.

B. Southeastern United States

Huntsville is centrally located between Birmingham, Alabama and Nashville, Tennessee. These two locations have been recognized as providers of highly specialized medical services for residents in the Southeastern United States. Tennessee Valley residents can receive additional medical support, if necessary, by traveling two hours north or south on Interstate 65.

III. Medical Facilities and Services

Local hospitals and facilities have expanded or are currently expanding their facilities or services to improve the delivery of healthcare treatment to a growing client base. **Map 5.1** shows the location of hospitals and clinics in the City of Huntsville. A review of primary medical facilities and services is provided.

A. Hospitals Located in Madison County

1. Crestwood Medical Center
CEO: Brad Jones
Phone: (256) 882-3100
Web Site: www.crestwoodmedcenter.com/

Crestwood Medical Center is an acute care, 120-bed hospital located in southeast Huntsville. The hospital has more than 465 physicians on staff representing 50 different specialties. The staff at Crestwood Medical Center has consistently ranked in the highest percentage of hospitals nationwide in many areas. Crestwood keeps up-to-date with cutting edge medical technology, and has added new state-of-the-art equipment in their surgical suites; catheterization laboratory, nuclear medicine department, and imaging department.

Specialty Services Available

Crestwood Medical Center provides the following services: Comprehensive Surgical Services, Mammography, Women's Center, Nuclear Medicine, CT Scan, Ultrasound, X-Ray/Fluoroscopy/Panoramic Imaging Services, 24-hour Full Service Lab, Cardiac & Vascular Catheterization Lab, MRI, Sleep Disorders, Pulmonary Care, Emergency Services, Special Procedures, Behavioral Health, Critical Care Unit, Maternity Center, The Center for Cancer Care, Food & Nutrition, Physical Therapy, Pastoral Care, Senior Friends, and Volunteer Services.

Expansion Plans

Recently completed projects include the expansion of the cardiac catheterization lab. This expansion allows Crestwood to participate in research with John Hopkins University involving angioplasties. Crestwood Medical Center has also completed the expansion and renovation of the Emergency Services Department. The department now has 19 treatment rooms; each equipped with state of the art medical equipment including cardiac monitors and a computer system to track patient's vital signs. A new Special Procedures facility (a recently completed addition to the hospital) provides more pre-operative and post-operative areas, with private consultation rooms for physicians to meet with patient's families. The Surgery Observation Unit was also relocated within this facility and offers a more comfortable setting for patients and their families post-surgery. Crestwood has also expanded its services and partnered with SportsMed to offer Crestwood Sports Care – The Center for Athletes, a pro-caliber orthopedic sports medicine provider for local high school and UAH sports teams.

2. **Huntsville Hospital**

CEO: Joe Austin

Phone: (256) 265-1000

Web Site: www.hhsys.org/

Huntsville Hospital is the region's largest healthcare facility and serves as the regional referral center for the entire Tennessee Valley. The hospital provides many comprehensive and specialized services to the region, and is among one of the largest, not-for-profit hospitals in the country. Huntsville Hospital has 901 beds on its campus, which includes the only free-standing specialty hospital in North Alabama for Women's and Children's services. The hospital also owns a medical mall, the Blackwell Medical Tower, and other medical office properties adjacent to its main facility. The hospital is used by the UAB School of Medicine-Huntsville Regional Campus as a clinical teaching facility.

Specialty Services Available

Huntsville Hospital provides the following services: Behavioral Health, Diabetes/Nephrology, Health Connection - RN4U, Home Health, Imaging Services, Laboratory Services, MedFlight (emergency helicopter), Medical Mall, Occupational Medicine, Pain Management, Pulmonary/Respiratory Care, Rehabilitation Services, Sleep Disorders, Sports Medicine, Therapy Services, Wellness Center, Wound Care, Cancer Services, Neurological Services, Orthopedic Services, Comprehensive Surgical Services, Cardiac Services,

Nursing Units, Outpatient Services, Women's Services, Emergency Services, OB/Maternity Care, and Pediatrics Care.

Expansion Plans

Huntsville Hospital is actively expanding its facilities to make service delivery better for their patients. They are providing additional parking which connects to the front of the hospital, and have just completed construction of a Women's Pavilion healthcare complex. Additionally, the hospital is currently working to expand the HealthSouth Rehabilitation Hospital (owned by Huntsville Hospital) and consolidate with other rehabilitation beds at the hospital's East Campus.

B. Major Area Health Clinics

1. Fox Army Health Center

Commanding Officer: Col. Robert K. Noback

Phone: (256) 876-4147 or (256) 955-8888

Redstone Arsenal, Alabama

Web Site: www.redstone.amedd.army.mil/

Fox Army Health Center serves over 70,000 soldiers, retirees, family members, and civilian employees who make up Team Redstone. The medical staff consists of approximately 300 soldiers, civilian employees, and contractors providing primary care, occupational healthcare, and outpatient specialty care. During an average week at Fox Army Health Center, the staff manages 1,250 outpatient visits, performs 220 lab procedures, fills 7,250 prescriptions, completes 260 imaging studies, performs 15 minor procedures, and performs 10 surgical procedures at civilian facilities. This health care facility provides a tremendous service to the Redstone community.

During 2002, Fox Army Health Center received the prestigious Surgeon General's Award for Excellence in Customer Service and Resource Efficiency. That same year, the facility received Accreditation with Full Standards Compliance from the Joint Commission for Accreditation of Health Care Organizations, achieving a survey score of 99. In comparison, the average survey score for similar ambulatory facilities in 2001 was 93 and only 11% of ambulatory facilities received a score of 99 or better that year.

Specialty Services Available

Fox Army Health Center provides comprehensive healthcare through their Primary Care Clinic, Pediatric Clinic, Internal Medicine Clinic, Surgical Clinic, Physical Therapy, Optometry Clinic, Occupational Medicine Clinic and the Public Health and Education Center. The facility also offers a pharmacy, pathology, radiology, and pharmacy services. It is not a 24-hour facility; however, the clinic does provide some appointments on weekends, evenings and holidays.

The Redstone Arsenal Dental Clinic shares space in the same building. Outlying services are the Behavioral Medicine Division and the Army Substance Abuse Program.

2. UAB Health Center Huntsville
Administrator: Michelle Banks
Phone: (256) 536-5511
Huntsville, Alabama
Web Site: www.health.uab.edu/show.asp?durki=1810

The UAB Health Center Huntsville is located in close proximity to Huntsville Hospital, and provides specialized healthcare through 24 faculty physicians and resident physicians. Hours of operation are 8am-5pm Monday-Friday.

Specialty Services Available

The UAB Health Center offers care in the following specialties: Family Practice, Internal Medicine, Pediatrics, OB/Gyn, and Psychiatry. The health center also offers research programs, assessment, education, and treatment for chronic illnesses such as Diabetes, Hypertension and Asthma. Outpatient procedures are available, as is an in-house laboratory and an on-site pharmacy. Physicians are on call 24 hours a day, 7 days a week, year round and have hospital privileges.

3. VA Clinic
Local Manager: Rakeena Davis
Phone: (256) 535-1001
Huntsville, Alabama

The local VA Clinic has two facilities serving qualified veterans in Madison County: at the UAB Health Center Huntsville, and at the City of Madison. The clinics have five medical doctors on staff (three in Huntsville, and two in Madison) in addition to three psychiatrists. Last year, both clinics served approximately 5,200 veterans. Patients are seen by appointment only.

4. HealthSouth Rehab Center
Administrator: Doug Beverly
Phone: (256) 535-2300
Huntsville, Alabama

HealthSouth Rehab Center is owned locally by Huntsville Hospital, and through agreement is managed by HealthSouth, Inc. The Center has a total of 50 beds and typically provides after-hospital care for individuals needing rehabilitation services for improved mobility. Huntsville Hospital is actively working towards expansion of the facility as well as rehab services in general.

5. Fresenius Medical Care - Dialysis Units
Huntsville Area Administrators: Ms. Phil Wilson
Phone: (256) 536-8571
Huntsville, Alabama

Fresenius Medical Care (FMC) operates nine Hemodialysis units and one Peritoneal Dialysis Unit in the greater Huntsville area. Approximately 390 patients are served in the Huntsville area. Each unit has a medical staff of registered nurses, a licensed social worker, a registered dietitian, and patient care technicians. Eight nephrologists who work in three local clinics serve as medical directors for the Dialysis Clinics and serve as primary care physicians for the

patients. Fresenius Dialysis Clinics operate a network of clinics throughout the United States, so transfer of care is not a tremendous burden.

6. Bradford Health Services of Huntsville
Regional Director: Mr. Bob Hines
Phone: (256) 536-9407
Huntsville, Alabama
Web Site: www.bradfordhealth.com/index.html

Bradford Health Services locally provides treatment and support in the greater Huntsville area. Bradford Health Services provides substance abuse and mental health programs for adults and adolescents. The staff at Bradford has developed a variety of innovative inpatient and outpatient services, and are committed to provide effective and affordable treatment to their clients.

IV. Public Health Services

The Huntsville community is not only committed to a high quality of healthcare services, but also to the integrity of public health. The protection of public health is the primary responsibility of the Madison County Health Department. A profile of the Department's activities follows:

Madison County Health Department

Director: Dr. Larry Robey
Administrator: Mr. Mark Lee
Phone: 539-3711
Huntsville, Alabama

The Madison County Health Department works closely with the private medical community and with various non-profit agencies providing health services to low income or underinsured members of the greater Huntsville area. The Health Department is a typical local unit of the Alabama Department of Public Health, offering the core public health services in both the environmental health and preventative medical services.

Services Provided

The Environmental Division inspects and permits all food service establishments, hotels and motels, onsite sewage systems (septic tanks) and other public residential facilities such as camps. The Madison County Health Department has several special programs which include permitting of private wells, investigating and abating illegal dumping, verification of dog and cat rabies vaccinations and within the city limits of Huntsville, controlling mosquitoes and abating other animal and insect pests on public property.

Medical services include childhood immunizations; issuing blue slips to meet school entrance requirements; adult vaccines for work, travel, and influenza; testing and treatment of sexually transmitted infections including HIV/AIDS, and tuberculosis; investigation of any reportable disease; family planning; cancer detection; high blood pressure detection and treatment for non-insured residents; pediatric services both physician and nursing; employment physicals; WIC nutrition services; and medical social workers. The main office also provides certified vital records for all events that occurred in Alabama.

Expansion Plans

Present operations are carried out in a fifty-year-old facility in downtown Huntsville and in four satellite offices. Construction is currently underway of a new 27,000 square foot facility located on Max Luther Drive, about one and one half miles north of downtown Huntsville. The new facility should be completed soon. The facility will double the existing floor space of all the current offices and provide abundant parking. The new facility, by having all services under one roof, will allow better coordination and improved efficiency of existing operations, permit expansion of programs as the community grows, and will provide for the addition of new activities.

V. Specialized Medical Training for Homeland Security

While the Madison County Health Department bears responsibility for preserving the integrity of day-to-day public health, local hospitals are preparing to respond to activities that may threaten the local population. Local healthcare providers have experience in routine case management as well as supporting emergency medical care during times of community emergency.

The City of Huntsville has received funds from several federal programs for anti-terrorism preparedness. One program Huntsville participates in is the Metropolitan Medical Response System (MMRS). Local hospitals, as well as Fox Army Health Center, are among the active participants. The MMRS program trains and equips emergency response agencies to respond to an attack with a Weapon of Mass Destruction (WMD) using the Incident Command System. The City of Huntsville will receive \$880,000 worth of equipment, pharmaceuticals and training for response to terrorist attacks. The medical and emergency response communities in the Huntsville area have been organized to treat up to 1,000 persons exposed to chemical agents, and up to 10,000 persons exposed to biological agents.

In addition to providing local emergency medical response to handle WMD incident response, Huntsville also participates in the **Strategic National Stockpile (SNS)**, and is a receiving point of medical supplies and pharmaceuticals to handle and manage treatment of up to about 300,000 persons exposed to chem/bio agents. The MMRS Plan provides for the sharing of casualty treatment and distribution of SNS pharmaceuticals in the 14 counties of north Alabama.

To effectively support the local emergency medical response of WMD events, Huntsville Hospital has constructed a self-contained decontamination room, with fixed shower facilities and plumbing. Huntsville Hospital also has two portable decontamination tents available. Crestwood Medical Center has two decontamination tents prepositioned for immediate response. Once patients are decontaminated, patients proceed to the hospitals' Emergency Room for further treatment and evaluation. Hospital personnel have been specially trained to handle these situations.

Huntsville Hospital has an internal hazardous materials (haz-mat) team trained and equipped for a WMD event. Their emergency department is also trained in Mark-I Kits for nerve agent exposure, have trained and drilled for a WMD event, and have 10 managers trained in Hospital Emergency Incident Command Systems (HEICS). Huntsville Hospital also has chemical hand-held detectors on site, and an external decontamination capability. Additionally, Huntsville Hospital emergency workers have had many years of training for emergency response to radioactive contamination.

Crestwood Medical Center staff has received education on Mark-I Kits, Hospital Emergency Incident Command System (HEICS), as well as decontamination. Several staff members have also received additional education in the management of Biohazard Disasters. Education is continuing in patient flow processing, decontamination, and HEICS. During the summer of 2003, 25 Crestwood staff members were trained at Nobel Training Center in Anniston, Alabama in “Healthcare Leadership and Administrative Decision-Making in Response to WMD Incidents.”

Huntsville area hospitals exercise their training during full-scale community-wide drills. Both Huntsville Hospital and Crestwood Medical Center are continually preparing to handle WMD events in addition to their routine day-to-day healthcare services.

These vital services, and the medical community's capability to provide them, is a testament of the quality and integrity of healthcare deliverables in the Huntsville community.

The Huntsville community is the healthcare leader in the region, and provides both opportunities and many options for persons requiring routine and specialized medical treatment. Additional healthcare resources are located within a two-hour drive on Interstate 65.

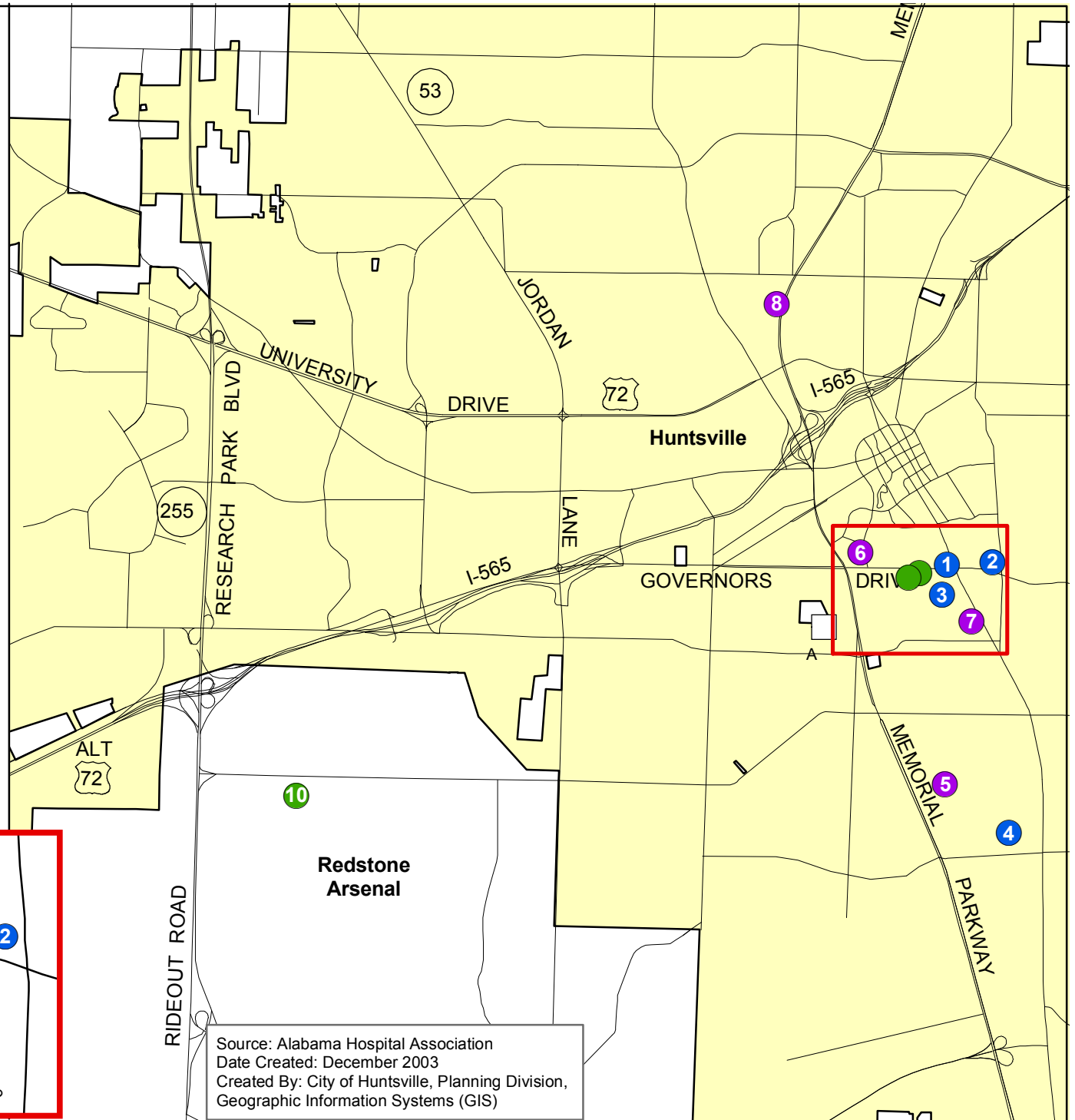
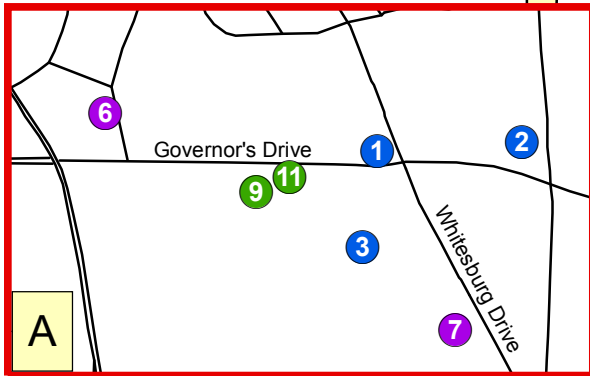
Not only is the area dedicated to providing superb healthcare services to area residents, the Madison County Health Department is committed to provide a daily, healthful environment for individuals and families to thrive.

Medical response during community emergencies is handled by local hospital facilities. Hospitals located in the City of Huntsville have received specialized training and have ready access to equipment and resources needed to respond to a WMD event that may threaten the population. Area hospitals also participate in community exercises that test their emergency response to WMD events as well as natural, man-made, or technological events.

The quality, quantity, and magnitude of medical personnel and resources in the Huntsville area provides the region with a standard of healthcare services that is not easily matched anywhere else.

Map 5.1 Hospitals & Clinics in the City of Huntsville

- Hospitals**
- | | # of Beds |
|--|-----------|
| 1 Huntsville Hospital Main | 901 |
| 2 Women's and Children's Huntsville Hospital | |
| 3 Health South Rehab Hospital of North Alabama | 50 |
| 4 Crestwood Medical Center | 120 |
- Dialysis Clinics**
- 5 Discovery Dialysis Clinic
 - 6 North Alabama Dialysis Center
 - 7 Pansy Dialysis Center
 - 8 Parkway Dialysis Center
- Clinics**
- 9 HealthSouth Rehabilitation Center
 - 10 Fox Army Clinic
 - 11 VA Clinic



Source: Alabama Hospital Association
Date Created: December 2003
Created By: City of Huntsville, Planning Division,
Geographic Information Systems (GIS)

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CITY OF HUNTSVILLE

PUBLIC SAFETY AND EMERGENCY RESPONSE QUICK FACTS

Public safety and emergency response activities in close proximity to Redstone Arsenal is handled through emergency response groups in the Huntsville-Madison County jurisdiction.

Crime rates in the Huntsville metropolitan area are low, and recent trends indicate that crime is decreasing. The area crime rate has steadily decreased during the past several years. The local law enforcement agency's programs and effectiveness are a testament to these rates decreasing.

Local emergency response groups include area medical emergency services, law enforcement, and fire suppression. These groups are coordinated for daily response through the Huntsville-Madison County 911 Center. During times of community emergency, county-wide response activities are coordinated through the Huntsville-Madison County Emergency Management Agency.

The greater Huntsville area has highly trained and professional emergency responders and organizations that can handle multiple types of incidents requiring various levels of response.

Local emergency responders have a special relationship with Redstone Arsenal. The City of Huntsville has signed reciprocal agreements with Redstone Arsenal and with NASA, that provides for immediate emergency response to events both on and off-post. Redstone Arsenal is also heavily involved in local emergency response planning, training and cross-training, and exercise activities. The coordination of these activities with Redstone Arsenal personnel make the whole community better prepared to handle routine daily emergency response activities, as well as community emergencies.

Local homeland security initiatives are handled by the Huntsville-Madison County Emergency Management Agency. Community-wide planning, training, and exercising for a terror-related event has occurred, and the community has performed exemplary. Efforts are on-going to improve current plans and capabilities and to develop additional capabilities to assist the region and surrounding states in terrorism response activities.

Other public safety related groups located in the area are the National Weather Service Huntsville Weather Forecast Office and the National Children's Advocacy Center. Both provide valuable services to the community.

The Huntsville Weather Forecast Office provides traditional weather services to the region. Additionally, it is involved with NASA in special projects that allow for improved weather forecasting in a more timely fashion.

The National Children's Advocacy Center provides response to child abuse victims and educational child abuse prevention programs to at-risk parents. The Center also provides national training to professionals on methods of effectively responding to child abuse within the community. Recent training was conducted with 60 representatives from the US Navy.

The entire public safety and emergency response structure in the City of Huntsville is among the best in the United States. National recognition has been given to innovative programs and methods developed in the area.

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SECTION 6
CITY OF HUNTSVILLE
PUBLIC SAFETY AND EMERGENCY RESPONSE

I. General Overview

The City of Huntsville has dynamic emergency response capabilities to support area residents as necessary, and the community during times of crisis. Emergency response agencies in close proximity to Redstone Arsenal are located in the Huntsville-Madison County area. Local public safety agencies are highly trained, and exercise their capabilities routinely. A variety of public safety resources are available in the community. This section will highlight these resources, as well as the relationships that local emergency response groups have with Redstone Arsenal that support personnel that live and/or work on-post.

II. Medical Emergency Response

Huntsville Emergency Medical Services, Inc. (HEMSI)

Director: Jon Howell
2700 6th Avenue
Huntsville, Alabama 35805
Phone: (256) 536-6660
Web Site: www.hemsi.org/

HEMSI is the primary provider of pre-hospital emergency medical services in the Huntsville-Madison County jurisdiction. The agency is one of 70 ambulance services in the United States and the only one in the State of Alabama that is accredited by the Commission on Accreditation of Ambulance Services (CAAS). This accreditation signifies that services provided by HEMSI meets the "gold standard" determined by the ambulance industry, and exceeds the standards typically established by local or state regulations.

The staff of highly qualified and trained emergency medical professionals is committed to the provision of quality EMS in Madison County through a variety of response programs. In addition to its typical operation of 6 Basic Life Support and 20 Advanced Life Support ambulances responding from 11 strategically located stations, HEMSI coordinates, equips, and provides support infrastructure for special units with unique expertise.

The High Angle Rescue Team (HART) and Dive Rescue Team are two such specialized emergency response programs. The HART unit is on call with Search and Rescue certified individuals for rough mountain terrain rescue, including vertical descent and ascent capability. The Dive Rescue Team is also available for response, with certified SCUBA rescue personnel for any water event in the Tennessee River or its tributaries. These specialty units are only one aspect of HEMSI's effort to provide a comprehensive approach to the provision of emergency medical services.

HEMSI also operates an Urban Responder Program in the City of Huntsville, which provides rapid first response to emergent high priority calls. The Urban Responders are all licensed emergency medical technicians who staff quick response vehicles equipped with Basic Life Support equipment, including a semi-automatic defibrillator. Outside of the City of Huntsville,

rapid first response is provided by fire services from both paid and volunteer units. These units work closely with HEMSI and are extensively trained in Advanced Life Support services.

All HEMSI operations are dispatched from the Huntsville-Madison County 911 Center, and response is coordinated as necessary with other emergency response groups. HEMSI works closely with other emergency response groups in preparedness planning and the exercise of coordinated emergency plans. Additionally, HEMSI is the primary provider of emergency medical services to Redstone Arsenal, and can support the installation during community emergencies via mutual aid agreements signed through the local emergency management agency.

The organization also works closely with the community, providing training to various groups in the methods of CPR, as well as informational programs.

HEMSI continues to upgrade its technology and work toward the expansion of its operations. The emergency response group has contracted with NASA to provide an ambulance on site at the Marshall Space Flight Center in Huntsville.

III. Law Enforcement

Response to police matters in the Huntsville jurisdiction is handled by the City of Huntsville Police Department. The department's crime response and prevention programs insure that the area is a safe place to live, work, and play.

A. Crime Statistics

A good way to measure the extent of crime in communities is to review national crime statistics. The Federal Bureau of Investigations (FBI) is the repository of crime statistics for rural, urbanized, and metropolitan areas. These statistics are published annually in the Uniform Crime Report. The FBI has developed a number, called the Crime Index, which is the calculated average of reported criminal offenses per 100,000 population. A higher number reflects higher rates of crime. Crime statistics, unlike US Census data, are a measure of social behavior. Crime rates may vary from location to location based upon the urban characteristics of an area, population density among urban communities, and other regional characteristics. Crime statistics are also heavily dependent upon crime being reported to law enforcement agencies, and the agency's effort to report the information to the FBI. Therefore, it is recommended that to be most effective, comparisons of crime rates be performed among communities with similar population densities and social characteristics.

A review of crime statistics for the Huntsville metropolitan area reveals that the overall Crime Index reported for 2002 was 4,243.9. This number is 5.2% less than the State average, 6.4% less than the reported crime rate for the Huntsville metro area during 2001, and 9.1% less than the area's reported crime for 2000. Crime rates are low in the Huntsville metropolitan area, and past trends indicate a steady drop in reported criminal offenses.

Local law enforcement departments work diligently to make the Huntsville metropolitan area safe. A review of the local agency is provided:

B. Local Law Enforcement

Huntsville Police Department

Chief of Police: Rex Reynolds

815 Wheeler Avenue

Huntsville, Alabama 35801

Phone: (256) 427-7001

Web Site: www.hsvcity.com/police.php

The Huntsville Police Department is a CALEA accredited agency, providing community law enforcement services with 357 sworn officers. In addition to routine policing operations, the department has also highly trained officers in tactical programs to protect the community.

Specialized Capabilities

The SWAT Unit consists of one Sergeant and 15 officers. They are trained in all aspects of special operations and executive and dignitary protection. The Unit has the capability to utilize many weapons and can make dynamic entry to secured areas if necessary.

The part-time Hostage Negotiating Unit consists of one Sergeant and five negotiators. They work very closely with the SWAT team and can handle the various needs in the negotiating area. They train and work very closely with the local FBI.

The part-time Bomb Unit is staffed with one Sergeant and 5 bomb technicians. They have the capability to respond with full x-ray, transport, robotic, and disrupter capabilities. They are currently being cross trained in order to handle Hazardous Materials as they would be used in a Weapons of Mass Destruction Incident. The Bomb Unit trains and works closely with the local FBI.

The full time K-9 unit is staffed with one Sergeant and seven K-9/Handler teams. They have full capability for patrol, drug, and bomb detection, and train with and for the surrounding area law enforcement agencies.

The Huntsville Police Department is also the lead agency in the Madison/Morgan County Area Wide Counter Drug Unit. This unit is a joint task force that combines personnel from the various area law enforcement agencies to handle all aspects of drug enforcement. As the lead agency, the department provides personnel as well as the Unit supervisor.

The Traffic Services Unit consists of one Sergeant and seven officers. This unit specialized in all aspects of traffic enforcement and special detail planning and operations. They have experience in handling many major events ranging from local marathons to presidential visits.

Community Policing

The department adopted the precinct style of policing approximately three years ago. Under this program, the city is broken into three precincts in order to tie policing efforts more closely with the citizens that are served. This provides the ability to more effectively interact with specific citizen needs. Street officers have "bought in" to the areas they serve, inducing a more effective communication with the citizens and their needs. This style of service has proven to more effectively provide quality police service.

Each precinct is staffed with one Captain, three Lieutenants, seven or eight Sergeants, and a compliment of investigative and patrol officers as needed to provide effective service to the specific community.

Additionally, the Huntsville Police Department initiated community policing programs through the Neighborhood Community Watch Association (www.hsvcommunitywatch.com/) in 1979. Each police precinct is staffed with a Community Relations Officer that coordinates with each community watch group. Members of community watch groups volunteer their time to perform community patrols and other activities to ensure the early detection and reporting of suspicious activity. This program has been very effective in the City of Huntsville, with approximately 72 active watch groups providing an extra set of ears and eyes in area neighborhoods.

Specialized Training

In addition to routine training and readiness exercises, the department has embarked on an extensive WMD training program in order to remain at the forefront of current practices and information. The following is a breakdown of WMD training received as of this date:

Awareness Level, 373 classes attended
Performance Level, 38 classes attended
Management Level, 35 classes attended

All sworn personnel have at least been trained at the awareness level.

Relationship With Redstone Arsenal

The Huntsville Police Department can provide assistance to Redstone Arsenal aid via formal mutual aid agreements through the Huntsville-Madison County Emergency Management Agency and the City of Huntsville.

Huntsville Police personnel actively participate with Redstone Arsenal in planning and evaluating joint response capabilities. The department also operates a joint firearms training facility with NASA Security, located on Redstone. Members of the Huntsville Police Department have participated in numerous training and informational sessions with members of the Provost Marshall's Office, as well as several areawide planning committees and groups.

IV. Local Fire Department

Fire suppression in the City of Huntsville is handled by Huntsville Fire & Rescue. A review of local capabilities and relationships with Redstone Arsenal is provided:

Huntsville Fire & Rescue

Chief Phillip Underwood
815 Wheeler Avenue
Huntsville, Alabama 35801
Phone: (256) 427-7401
Web Site: www.hsvcity.com/fire.php

Huntsville Fire & Rescue operates 16 fire stations in addition to one volunteer fire station on Green Mountain. The department has 307 fire suppression personnel, and a total of 340 employees. Department resources include 16 frontline engine companies, 2 backup engine companies, 4 aerial trucks, 1 hazmat unit, and a decontamination unit.

Specialized Capabilities

Huntsville Fire and Rescue has a fully trained and highly qualified hazardous materials team comprised of 50 responders. The department also provides emergency medical services out of three fire stations, with 158 certified emergency medical technicians citywide. Other capabilities include specialized units to perform vehicle extrication using the "jaws of life."

Specialized Training

In addition to routine fire suppression drills and preparedness activities, Huntsville Fire and Rescue has participated in community-wide exercises related to a WMD event. Redstone Arsenal was also involved, so all agencies have drilled together to build community response capabilities.

Relationship with Redstone Arsenal

Huntsville Fire and Rescue has its own mutual aid agreement signed with Redstone Arsenal to provide direct response and support to fire suppression activities on Redstone Arsenal in the event of a major fire. Both Redstone Arsenal fire suppression units and Huntsville Fire & Rescue use compatible equipment, so response actions can proceed quickly and effectively. Redstone Arsenal has also been involved with community-wide training and exercise events with Huntsville Fire and Rescue. Monthly lunch meetings are held with all area fire chiefs (including Chief Vest of Redstone Arsenal), to discuss mutual issues and to explore ways of providing support to each other through mutual training.

V. Other Public Safety Agencies and Organizations

A. Huntsville-Madison County 911 Center

Director: Ernie Blair
5827 Oakwood Road
Huntsville, AL 35806
Phone: (256) 722-7140

The Huntsville-Madison County 911 Center is the largest emergency facility of its kind in the State of Alabama. It is a consolidated dispatch and communication facility, and houses all call-taking and dispatching public safety agencies serving Madison County, the City of Huntsville, and the City of Madison. The following emergency response groups have a presence within the center: Huntsville Police Department, Huntsville Fire & Rescue, Madison County Sheriff's Department, Huntsville Emergency Medical Services (HEMSI), City of Madison Fire Department, City of Madison Police Department, and Madison County Fire Department.

The co-location of 26 highly trained emergency response call-takers and dispatchers ensures appropriate and timely emergency response during typical emergency events as well as times of community crisis. State-of-the-art equipment indicates real-time vehicle location of Huntsville Police, Madison Police and HEMSI Units. This capability allows the dispatcher to effectively manage response resources, by contacting the appropriate, nearest available unit to the caller's location. Having this technology in the 911 Center is critical, when minutes and seconds count. The Center also has the capability to pinpoint

the location of cellular 911 calls, contingent upon cellular service providers and the user's cell phone capabilities.

B. Huntsville-Madison County Emergency Management Agency

Director: John E. Russell

P.O. Box 308

Huntsville, Alabama 35804

Phone: (256) 427-5130

Web Site: www.hsvcity.com/ema.php

The Huntsville-Madison County Emergency Management Agency is a joint city-county agency that primarily coordinates emergency preparedness, response activities, and available resources for community-wide emergencies or extreme localized events. The agency is managed by the Huntsville-Madison County Emergency Management Board. Several Board members are employees of Redstone Arsenal and NASA. Funding for the agency is primarily carried by the City of Huntsville municipal government.

The goal of the agency is to minimize the effects of disasters on the lives and property of the citizens of Madison County through leadership, coordination, and support in the four phases of emergency management: mitigation, preparedness, response, and recovery. The agency has identified the community's major hazards, and plans, trains, and exercises with other emergency response groups to respond to these events. Redstone Arsenal is a key player in the area's emergency response community and has been integrated into the community's mitigation initiatives, emergency plans, training, exercises, and response and recovery activities.

1. Mitigation Activities

Mitigation activities are actions taken to minimize the effects of hazards upon the community. The Huntsville area has been active in this area.

a. Flood Protection

Through the efforts of the City of Huntsville's Flood Hazard Mitigation Program, area residents are better protected against flooding events. This proactive program has placed Huntsville at a Level 7 in the National Flood Insurance Program's Community Rating System, resulting in a 15% reduction in homeowners' flood insurance policy premiums.

b. Community Emergency Response Teams

The Huntsville-Madison County Emergency Management Agency has provided training for area residents in responding themselves to community emergencies before emergency services help arrives. This proactive program allows community leaders to serve each other and provide immediate life saving assistance to their neighbors.

c. Storm Ready Community

The Huntsville-Madison County jurisdiction has been declared a "Storm Ready" community by the National Weather Service. This means that

certain preparedness activities have been initiated and put into practice to better protect residents in the event of severe weather.

d. Emergency Warning

One vital role that Emergency Management plays in the community is that of providing emergency warning. This is done through the traditional means of alerting the news media of various events. Another critical method of communicating to the public is through the county's siren warning system, a state-of-the-art computerized system that supports the activation of 107 sirens. While other communities may have more sirens, the Huntsville-Madison County community has one of the best coverage ratios in the United States, when coverage is based upon population density. At the present time, approximately 95% of Huntsville residents are covered by the siren warning system. Redstone Arsenal is covered as well, and has six sirens on-post that cover the major population centers. The sirens on-post were paid for by federal funds. Through agreement, the Huntsville-Madison County Emergency Management Agency can activate the sirens on Redstone Arsenal alone upon special request. The specialized technology supported by Motorola Corporation, allows singular activation of warning sirens as well as periodic self-testing of equipment to ensure that systems are always operational. Local political jurisdictions have invested over \$2.3 million dollars in siren warning equipment alone.

2. Emergency Plans

The Agency has exceptional emergency plans in place to address multi-hazards. Hazard specific plans have been used as prototype and example for other jurisdictions and have been used for training throughout the United States. Planning is not performed in a vacuum, but is done through coordination of local emergency response groups. The Local Emergency Planning Committee (LEPC) is the main vehicle through which this coordination takes place. The LEPC meets periodically to discuss emergency response issues, planning initiatives, and training and exercise programs. Work is done primarily through subcommittees that report to an Executive Committee. The Army at Redstone Arsenal is well represented on the LEPC, and provides staff from the AMCOM Plans Division, AMCOM Environmental Division, the Defense Intelligence Agency, the Army Corps of Engineers, Fox Army Health Center, Redstone Arsenal Garrison, and Redstone Arsenal Force Protection. NASA is also represented on the committee. All entities are familiar with each other's emergency response plans, and all represented Emergency Operations Centers have each other's emergency response plans in their possession. The integration of these key Redstone players has made a tremendous difference in the planning efforts for emergency response both on and off-post.

3. Emergency Operations

During times of real or potential emergency situations, the Huntsville-Madison County Emergency Operations Center is activated. This involves a great deal of call notification of other emergency response groups to activate their appropriate

plans is dealing for the specific event. The Huntsville-Madison County Emergency Management Agency has direct communications with Redstone Arsenal Emergency Operations Centers through phone and through a PC interface with the Army's Space and Missile Defense Command (SMDC) that enables communications between Redstone, NASA/Marshall Space Flight Center, and Emergency Management. Additionally, Redstone Arsenal has capabilities to monitor the Alabama Emergency Management Agency's EM 2000 program, which runs an event log and statewide bulletin board during potential statewide emergencies. NASA has instant and direct radio communications with the Huntsville-Madison County Emergency Operations Center (EOC) through 800 MHz radio.

This communications capability assists the local community. Both NASA and Redstone Arsenal have approximately 22 trained severe weather spotters, that can call in suspicious cloud formations and weather observations to the Huntsville-Madison County EOC. The EOC then contacts the National Weather Service, who can verify real-life observations with radar technology. This partnership assists in community warning of severe weather events.

Redstone Arsenal officials have designated and available seating in the Huntsville-Madison County Emergency Operations Center for coordinated response purposes, but Redstone's support to the community's EOC does not end there. The SMDC spent approximately \$2.5 million in research and development of situational awareness and operational management software, originally created for theater command and coordination. In an effort to test how military technology integrates into civilian emergency response situations, the SMDC has provided this product to the Huntsville-Madison County EOC for evaluation. An integrated mass casualty exercise involving multiple emergency response groups and other key players was conducted to test the software, and it tested successfully. For civilian applications, the software provides situational awareness and operational management for emergency response actions taken in the EOC and in the field.

The Huntsville-Madison County emergency management staff also has the capability to run forward operations at another location in addition to the local EOC. In the event of an emergency at Redstone Arsenal that requires Emergency Management support, the local staff has been provided with badges and appropriate clearances to get on-post.

4. Training and Exercise

The Huntsville-Madison County Emergency Management Agency coordinates and provides supplemental training programs to emergency responders for community-wide response. Additionally, training received and general preparedness activities are exercised and evaluated on a periodic basis. The local emergency management agency has included Redstone Arsenal in these activities. Representatives from the Redstone Garrison and the Provost Marshall's Office participate in the agency's annual winter storm response briefings. Additionally, the local emergency management agency participates in Redstone Arsenal's Safety Days, and provides emergency preparedness classes for the installation's soldiers.

The Huntsville-Madison County emergency response community has also supported Redstone Arsenal through their exercise requirements. During July 2003, local emergency responders assisted and responded during two separate full-scale “force protection exercises” at Redstone Arsenal. One exercise involved a natural hazards event, and the other involved a terrorism event. Redstone Arsenal personnel requested and obtained local support through available emergency responders during these events. The last scheduled exercise was held February 5, 2004, involving Fox Army Health Center and local emergency response groups. The relationships established and the lessons learned through these exercise and training programs is critical, especially since local governments and Redstone Arsenal have reciprocal agreements to support each other during times of community emergency.

5. Mutual Aid

The Huntsville-Madison County Emergency Management Agency has mutual aid agreements in place with other North Alabama counties through the 13 County Mutual Aid Association. These agreements are signed by all local jurisdictions, and provide for the sharing of emergency response personnel and resources in the event of a local disaster. The 13 County Mutual Agreement, originally signed in 1979, was a Statewide model, and still serves the southeastern United States as a regional model for coordinated emergency response and recovery spanning multiple jurisdictions.

While eventual emergency response beyond the capabilities of Redstone Arsenal will be handled on-post at the federal level, the Commander at the installation and local governments recognize that immediate emergency response during disastrous situations is critical in saving lives and in minimizing property damage. With that in mind, the Commander at Redstone Arsenal, the Center Director at NASA, and all major local jurisdictions have signed mutual aid agreements with each other to provide emergency support upon request. Redstone Arsenal emergency response groups and local emergency response groups train and exercise together to maximize effective response and recovery efforts. These agreements enable local emergency response groups to support soldier and civilian lives during emergencies on-post, and allows Redstone Arsenal to support local resources, if needed, during an off-post community emergency. Actual coordination and activation of these agreements are done through request of the local emergency management agency. All emergency response groups concur that mutual aid agreements that local governments have signed with Redstone Arsenal has put in place the framework for coordination with resources on-post to better protect employees of Redstone Arsenal and the community as a whole.

6. Homeland Security

The Huntsville-Madison County Emergency Management Agency has taken a lead role in the coordination of local homeland security efforts. These initiatives involve the planning, training, and exercise of response to terrorism-related events.

a. Planning

Integrated planning for terrorism-related events is conducted locally by the Emergency Management Agency, through the Local Emergency Planning Committee. Local emergency response groups have plans in place to handle terrorism-related events. These plans are being perfected continually as emergency responders increase their knowledge base and gain more practical application of emergency response techniques for coordinated response through the incident command system.

b. Training

In addition to planning, training is an essential ingredient for local preparedness. To date, more than 500 professional first responders in the Huntsville-Madison County area have received a minimum of Awareness level training for response to a Weapon of Mass Destruction (WMD) incident. More than 200 responders have received advanced level training in Incident Command and Operational level training in a WMD environment. Not included in this total are a number of force protection elements of Redstone Arsenal that routinely attend and participate in training opportunities sponsored by local agencies. These courses have included discipline specific training as prescribed by the United States Department of Homeland Security, Office of Domestic Preparedness, as essential training for emergency first responders.

Local emergency responders have established a relationship with the Center for Domestic Preparedness (CDP) and the Noble Training Center. The CDP conducts live nerve agent training for civilian first responders from its headquarters at the former Fort McClellan Base as well as providing mobile training teams throughout the United States. Medical staffs are trained at the Noble Training Center in appropriate response to a WMD event. Huntsville area responders have tested innovative techniques in terrorism-related response established by the Noble Training Center to verify practical applications of the techniques in the field.

c. Exercise

Once planning and training activities occur, the effectiveness of these programs must be evaluated. This is done through community-wide exercises.

Exercising these plans and incorporating lessons learned is the final essential component of a truly prepared community. In the past twenty-four months a vigorous exercise schedule has seen tabletop chemical, biological, and mass casualty exercises in the Huntsville community. In each of these exercises the Redstone Arsenal community has been well represented as well as the Garrison Command. Lessons learned through the tabletop exercises were incorporated into a recent full-scale chemical weapons exercise at a local sporting venue. The simulated terrorist attack tested the response and mutual aid component in the Huntsville

area. Redstone Arsenal supplied not only emergency response personnel, but also nearly seventy-five actors that simulated the effects of nerve agent contamination. Their participation was a vital element to this community response exercise. Evaluators stated that the Huntsville emergency response community was well prepared for a terrorism-related event. Additionally, several response procedures employed by local emergency response groups were unique and will be incorporated at the national level as a model for terrorism response.

d. Increasing Capabilities

The City of Huntsville has received funds from several federal programs for anti-terrorism preparedness. One program Huntsville participates in is the Metropolitan Medical Response System (MMRS). Local hospitals, as well as Fox Army Health Center, are among the active participants. The MMRS program trains and equips emergency response agencies to respond to an attack with a Weapon of Mass Destruction (WMD) using the Incident Command System. The City of Huntsville will receive \$880,000 worth of equipment, pharmaceuticals and training for response to terrorist attacks. The medical and emergency response communities in the greater Huntsville area have been organized to treat up to 1,000 persons exposed to chemical agents, and up to 10,000 persons exposed to biological agents.

In addition to providing local emergency medical response to handle WMD incident response, Huntsville also participates in the Strategic National Stockpile (SNS), and is a receiving point of medical supplies and pharmaceuticals to handle and manage treatment of up to about 300,000 persons exposed to chem/bio agents. The MMRS Plan provides for the sharing of casualty treatment and distribution of SNS pharmaceuticals in the 14 counties of North Alabama.

To effectively support the local emergency medical response of WMD events, local hospitals have either constructed a decontamination room or purchased decontamination tents. Additionally, local emergency medical responders and managers have received the latest instruction in WMD preparedness activities.

Through the Alabama Homeland Security Office, the Huntsville area received approximately \$1.1 million of funding to develop teams for State-to-State response.

These support capabilities will add to the current resources made available through Huntsville-Madison County to the North Alabama response community. The Huntsville Police Department has dedicated personnel that serve a full time duty assignment as a member of the Federal Bureau of Investigation's, North Alabama Joint Terrorism Task Force (NAJTTF). This task force includes members of the 902nd Military Intelligence unit stationed at Redstone Arsenal and serves as the focal point of counter-terrorism investigation and response for the North Alabama law enforcement community. Additionally, the nationally

recognized Huntsville Police Department canine squad assists Redstone Arsenal and SMDC force protection units with routine explosives detection searches.

Working with various emergency response groups in the planning, training, and exercise of terrorism related response is critical to a community's success in handling such an event. During the latest exercise, evaluators were positively impressed by local emergency response to these type events. The Huntsville community is prepared. The Huntsville community is a regional leader in terrorism-related response efforts, and either have developed capabilities or are developing capabilities to be used regionally to support a terrorism-related event. The efforts of community leaders as well as emergency response agencies has put the Huntsville community on the forefront of terrorism-related planning, training, response, and recovery efforts.

- C. National Weather Service - Huntsville Weather Forecast Office
Meteorologist in Charge: Mr. John Gordon
320 Sparkman Drive
Huntsville, Alabama 35805
Phone: (256) 890-8503
Web Site: www.srh.noaa.gov/hun/

The Huntsville Weather Forecast Office of the National Weather Service provides support to 11 counties in North Alabama and 3 counties in Southern Tennessee. In addition to forecasting duties and the issuing of special weather statements, the staff is involved in special projects, outreach activities, and storm surveys.

One of several special projects involves the close and productive collaboration with atmospheric scientists at NASA Marshall Space Flight Center (MSFC) and the University of Alabama Huntsville (UAH). As a result of this partnership, NASA has developed the Short-term Prediction Research and Transition (SPoRT) Center. The primary objective of the SPoRT Center is to transfer and incorporate NASA earth science technology and research into the National Weather Service's operational environment. The Center's emphasis will be on improving service delivery as well as short-term forecasting for the residents of the Tennessee Valley. These initiatives will be conducted through certain tools, to include real-time total lightning information, high-resolution supplemental model data, and an array of data sets and products from NOAA and NASA owned satellites. More information concerning the SPoRT Center and ongoing activities is available at: <http://www.ghcc.msfc.nasa.gov/>

Outreach activities performed by the local office include educational programs and storm spotter training. Classes in "storm spotting" are offered periodically by the National Weather Service, usually in conjunction with local emergency management agencies. Persons completing the classes are certified, and can work with local emergency management agencies in reporting suspicious cloud formations and severe weather-related events that may verify the National Weather Service's radar observations. These classes have been offered to Redstone Arsenal and NASA personnel, and these employees provide support to local groups in reporting real-time weather observations.

Storm surveys are typically performed by National Weather Service staff after a major storm, wind event, or tornado. These surveys verify radar observations and storm

patterns, and provides weather forecasters with additional information concerning the event so that it may be studied further.

D. National Children's Advocacy Center

Director: Mr. Chris Newlin

210 Pratt Avenue

Huntsville, Alabama 35801

Phone: (256) 533-0351

Web Site: www.nationalcac.org/

The National Children's Advocacy Center (NCAC) is a non-profit agency providing prevention, intervention, and treatment services to physically and sexually abused children and their families within a child-focused team approach. Since opening in 1985 as the nation's first Children's Advocacy Center, the NCAC has become a leader in the field of prevention and intervention of child maltreatment. To date, approximately 500 centers have been opened nationwide, built upon the Huntsville model.

The NCAC offers several child abuse prevention programs involving education of high-risk parents as well as children. The Center also provides national training at its National Child Abuse Symposium and through state-of-the-art facilities. Approximately 2,500 professionals are trained each year at the Center, and approximately 54,000 persons have been trained in Huntsville since 1985. The NCAC recently provided training to 60 employees of the US Navy, and instructed them in effective methods of responding to child abuse.

The NCAC is heavily supported in the North Alabama community. Facility operations recently moved to a new \$8.5 million campus. Donations received from area defense contractors paid for approximately 24% of the facility's total cost.

The City of Huntsville provides a well-rounded public safety community that is dedicated and committed to providing the best services to its residents. Emergency service groups serve the community in providing response to a variety of community needs and at varying levels. These groups have attained national recognition for their innovation and efforts to make the Huntsville community a safe place to live.

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CITY OF HUNTSVILLE QUALITY OF LIFE QUICK FACTS

The City of Huntsville offers a high quality of life to its residents. This is done not only through the traditional provision of public services and educational opportunities, but also through cultural and recreational programs.

Huntsville provides many museums and other facilities and programs that promote cultural, regional, and educational awareness.

While the community provides unmatched arts and creative opportunities to its residents, no one can discount the contribution made to the community by Redstone Arsenal and NASA employees, as well as local defense contractors. Their volunteer hours and charitable contributions have positively impacted the quality of life found in this community.

There are various natural wonders, recreational facilities, and numerous recreational activities that are available to area residents.

Huntsville is home to several professional sports teams.

In addition to organized recreational sports offered by the City of Huntsville, private recreational teams and other activities are found in the Huntsville area in which to participate.

Finally, organized festivals and special events round out the activities available in the region. There is always something going on, and residents can participate by volunteering or by just attending the events.

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SECTION 7 CITY OF HUNTSVILLE QUALITY OF LIFE

I. General Overview

The Huntsville metropolitan area has been recognized nationally for the high quality of life it affords its residents. *Employment Review Magazine* ranks Huntsville as number 4 in the nation for the best place to live and work. *Family Digest* ranks Huntsville as the top community for Black Families.

The City of Huntsville provides a high quality of life to its residents through cultural activities and recreational opportunities provided in state of the art facilities. The information that follows presents a brief overview of the activities that are available for residents of the Huntsville and Redstone Arsenal communities.

II. Museums and Other Facilities which Promote Cultural, Regional, and Educational Awareness

The Huntsville area provides a myriad selection of activities and educational opportunities that are presented in a fun and unique way. These facilities and their special programs promote a great awareness of the area's environment and invite the exploration of all minds. A map of these facilities is shown at **Map 7.1**.

- A. Huntsville Museum of Art
Director: Clayton Bass
300 Church Street
Huntsville, Alabama 35801
Phone: (256) 535-4350
Web Site: www.hsvmuseum.org/

Square Feet of Exhibit Space: Approximately 15,000

Acreage under Management: Less than 2 acres

Admission Rates: \$7.00 general admission, discounts given to military, seniors, students, and groups of 10 or more. Members and children under 6 are admitted free.

Annual Attendance: 72,000

The Huntsville Museum of Art brings people and art together through acquiring, preserving, exhibiting and interpreting the highest quality works of art. The Museum is a non-profit municipal corporation established by the City of Huntsville and governed by a city-appointed Museum Board.

The Huntsville Museum of Art offers free admission to military personnel and their families during Armed Forces Celebration week in July. The Museum recently hosted *The Art of Soldiering: Treasures from the Anne S.K. Brown Military Collection*, which highlights the history of military uniforms and

pageantry during the last 500 years. The education department organized a Family Festival Military Day in association with the exhibition. Also in May 2004, the Museum hosted *Becoming a Nation: Americana from the Diplomatic Reception Rooms, U.S Department of State*, which featured more than 120 works that told the story of our young country and its developing culture and aesthetics. Huntsville was only one of eight venues that experienced this exhibit in the United States this year. Additionally, the Alabama Bureau of Tourism and Travel ranked it as one of the top attractions in the State for 2004.

Approximately one-third of the Museum's budget comes from local, state, and federal sources; one-third from patron support and usage; and one-third from special events, programming and various other sources. Many local defense contractors are major contributors and donors.

B. Huntsville Botanical Garden

Director: Paula Steigerwald

4747 Bob Wallace Avenue

Huntsville, Alabama 35805

Phone: (256) 830-4447

Web Site: www.hsvbg.org/

Acreage under Management: 112 Acres

Admission Rates: \$8.00 Adults; \$6.00 Seniors/Military; \$3 Children 3-17;
Children under 3 are Free.

Annual Attendance: 235,000

The Huntsville Botanical Gardens provides a beautiful and tranquil site for perennial, daylily, rose, annual, wildflower, fern and herb gardens and aquatic gardens. The Garden seeks to educate, excite, surprise and inspire both young and old to the world of horticulture through world class botanical displays, educational outreach, plant trials and evaluations, and collections.

The Garden offers special programs: Spring Festival of Flowers during April, Butterfly House (open May – September), Scarecrow Trail (featured in September and October), and the Galaxy of Lights holiday extravaganza Thanksgiving through New Year's Eve. The Garden also is the site of the Center for Biospheric Research.

The Garden provides summer camps for children ages 4-12. These camps are three-hour programs and based on the Garden's summer features. Children are grouped by ages and participate in arts, crafts, and related activities. Additionally, the Garden presents a horticultural therapy program that provides field trips and workdays with activities tailored for special needs groups.

The Garden offers 2 free days to the public each year, as well as a 10-day period of free admission to the Armed Services and NASA employees.

The Botanical Garden's property was originally owned by the Department of the Army.

Two retired Commanding Generals serve on the Garden's Board of Directors and Advisory Board.

A majority of funding comes from membership dues and facility rentals. The local defense sector heavily supports the Garden through donations. During 2003, the defense community contributed a total of \$114,000.

The Garden is currently working on the next phase of their development with an expanded Butterfly House, Children's Garden, and a new lake. Garden officials have applied through the Army's Innovative Readiness Training (IRT) for support from the 926th Engineering Unit to construct the lake and add to the water supply. The unit that will provide the services sees this as a very worthwhile training project for their development. Redstone has also agreed to offer the unit Room and Board as available for the Reserves performing the tasks.

C. Early Works Museums

Director: Bart Williams

404 Madison Street

Huntsville, Alabama 35801

Phone: (256) 564-8100

Web Site: www.earlyworks.com/

The Early Works Complex operates three major museums in the City of Huntsville: Early Works Children's Museum, Alabama Constitution Village, and the Historic Huntsville Depot.

All three provide experience-driven programs, activities, exhibits and events. The Early Works Museums provide audiences of all ages a hands-on connection to the past, thereby, providing them a clear understanding of our lives today. The facilities provide history-centered educational opportunities, and provide summer camps for area youth.

Early Works Children's Museum is the south's largest hands-on history museum for youth. Alabama Constitution Village traces the history of the birth of Alabama in downtown Huntsville at the 1819 Constitutional Convention. The Huntsville Historic Depot is one of the nation's oldest railroad structures, and is on the National Register of Historic Places.

The Museums provide special programming centered around Armed Forces Week. The Museums also host the Whistle Stop Festival and Bar-B-Cue Competition, Santa's Village, and a Folk Life Festival.

Early Works Children's Museum

Square Feet of Exhibit Space: Approximately 50,000

Acres under Management: 1 acre

Admission Rates: Call for rates

Annual Attendance: 100,000

Alabama Constitution Village

Square Feet of Exhibit Space: Approximately 20,000

Acreage under Management: 1.5 acres

Admission Rates: Call for rates

Annual Attendance: 45,000

Historic Huntsville Depot

Square Feet of Exhibit Space: Approximately 30,000

Acreage under Management: 5 acres

Admission Rates: Call for rates

Annual Attendance: 45,000

D. U.S. Space and Rocket Center

Director: Ret. BG Larry Capps

1 Tranquility Base

Huntsville, Alabama 35805

Phone: (256) 837-3400

Web Site: www.spacecamp.com/

Square Feet of Exhibit Space: 60,000

Acreage under Management: The U.S. Army deeded 459 acres; 40 are used by the U.S. Space and Rocket Center (*an additional 247 acres are leased at no charge to the City of Huntsville as a botanical garden and a sportsplex*)

Admission Rates: \$18.95 Adults; \$12.95 Children 3-12; Children under 3 are Free. 10% discount to Military.

Museum only: \$14.00 Adults; \$9.00 Children 6-12

Annual Attendance: 390,000

The U.S. Space and Rocket Center celebrates and chronicles the history of the space program in the United States at its birthplace-Huntsville, Alabama. As such, it has the greatest collection of rockets and space memorabilia anywhere.

The Center provides guided bus tours of NASA's Marshall Space Flight Center where visitors can look behind the scenes where scientists and engineers are shaping the nation's future in space. Interactive exhibits and an IMAX theater are among other activities that visitors can experience. The Center also operates the popular Space Camp.

The Army provided in 2001 an interactive exhibit on Team Redstone, featuring the smart technology the Army is incorporating into the work of defense.

The Center also provides several traveling exhibits and special programs, typically involving high profile speakers such as NASA special project managers and astronauts.

E. US Space and Rocket Center - Space Camp

Director: Ret. BG Larry P. Capps

1 Tranquility Base

Huntsville, Alabama 35805

Phone: (256) 837-3400

Web Site: www.spacecamp.com

Tuition: \$299 - \$799, depending upon program. Refer to web site for program descriptions. Scholarships are available, and Military Families receive a 10% discount.

Space Camp uses the excitement of space exploration to motivate students (grades 4-12) to study math, science, technology, and engineering. A companion program, Aviation Challenge, uses the same format of aviation and pilot training to accomplish the same goals of inspiring the next generation to be prepared for the technological challenges of the future. Space Camp's proximity to Redstone Arsenal and NASA's Marshall Space Flight Center creates a special educational environment that makes this possible.

During 2003, 35,689 students attended Space Camp, and 416 teachers attended. A week at Space Camp is part of the award for the National Teacher of the Year and for the Teachers of the Year selected from the 50 states and U.S. territories.

In addition to grants from NASA and corporate foundations, local industries and businesses partner with Space Camp. During 2003, the US Space and Rocket Center received over \$980,000 in donations from industries, businesses, and professional organizations.

F. Sci-Quest

Director: Mr. J.D. Horne

102-D Wynn Drive

Huntsville, Alabama 35805

Phone: (256) 837-0606

Web Site: www.sci-quest.org/

Square Feet of Exhibit Space: Approximately 25,000

Acreage under Management: Approximately 1 acre

Admission Rates: \$7.00 Adults; \$6.00 Children.

Annual Attendance: 75,000

Sci-Quest is located in a 40,000 square foot facility within America's second largest research park. It boasts more than 150 interactive exhibits covering areas of science such as engineering; electricity and magnetism; world ecosystems and weather sciences; fluid dynamics; physiology; waves, light and sound; chemistry and material sciences; and early childhood education. These exhibits meet the guidelines set forth in the Alabama Course of Study for Math and Science and the National Science Standards.

Sci-Quest is committed to staying at the forefront of science education by continually evaluating exhibits and programs and adding new educational components.

Sci-Quest is an exemplary, hands-on interactive learning center, accessible to all, emphasizing informal education in math, science, and technology, complementing the character of the region's industry and educational institutions.

Since the summer of 2001, Sci-Quest has offered more than 336 public educational programs for children ages 4-12. Camps are also offered for children. The science museum also has an extensive offering of outreach programs that take science on the road to schools, churches and childcare centers. Instead of using a traditional classroom format, Sci-Quest's science educators use interactive demonstrations and hands-on experiments to enhance the audience's experience.

In addition to its regular programs, Sci-Quest hosts a program each February, which features speakers from Redstone Arsenal and NASA providing area 6th graders with information about technical career options.

The Center's mission is to serve as a gateway to science awareness, a model for excellence in science education, and an innovative center for experiential learning. Programs and exhibits are designed to excite and engage not only children, but people of all ages, encouraging them to learn basic scientific principles and fostering the desire for further study. The Center's programs promote career choices in the fields of science and technology, and contribute to the growth of the area technical labor pool in support of the area industry workforce requirements.

G. Veteran's Museum

Director: Mr. Randy Withrow

2060A Airport Road

Huntsville, Alabama 35801

Phone: (256) 883-3737

Web Site: www.memorialmuseum.org

Square Feet of Exhibit Space: Approximately 24,000

Acreage under Management: Approximately 2 acres

Hours of Operation: Wednesday-Saturday 10 a.m. – 4 p.m.
(open to 5 p.m. in summer)

Admission Rates: \$5.00 Adults; \$4.00 Seniors;
\$3.00 Children/Students under 18

Annual Attendance: 2,000 and growing (recently established)

The Veteran's Memorial Museum, operated by the Alabama Center of Military History Inc., is a non-profit, tax exempt educational institution founded for the purpose of historical preservation, public display, and public education. The

Museum is dedicated to memorializing the deeds of American military men and women. Emphasis is on participants of World War II and subsequent conflicts.

The Museum displays more than 30 historical military vehicles and field pieced, maps, artifacts, and other memorabilia dating from 18th Century campaigns to the present.

In addition, the museum's reference library contains military publications and reminiscences of local veterans. School groups are welcome. The Museum participates in President Bush's *Lessons in Liberty* program and will provide speakers to visit classrooms on request.

The Museum loans historical items to Redstone Arsenal in support of their special events. Additionally, the Museum furnishes typical military equipment for the local Veteran's Day parade and the Statewide military vehicle rally held each Memorial Day. Staff are also participants in the Library of Congress' Veterans History Project.

H. Burritt on the Mountain - A Living Museum

Director: Jim Powers

3101 Burritt Drive

Huntsville, Alabama 35801

Phone: (256) 536-2882

Web Site: www.burrittmuseum.com/

Square Feet of Exhibit Space: Approximately 8,100

Acreage under Management: Approximately 167 acres

Annual Attendance: 100,000

Burritt on the Mountain - A Living Museum, is an educational institution interpreting the history of the people and the environment of the Southern Cumberland region of Alabama and Tennessee based on the acquisition, preservation, and documentation of the region's human and material culture and its natural characteristics.

The Museum has been named as one of the top ten tourist attractions in the state by the Alabama Bureau of Tourism and Travel for more than a decade.

The Museum offers guided tours, outreach programs, and all-day field trip programs related to a special theme (e.g., Indian Heritage). The Museum also offers camps on a number of topics related to their mission in the summer and during spring break. Camps range from programs on insects for 5 year olds to programs on skills needed in the 19th Century by girls for 11-14 year olds.

The Museum also sponsors several enjoyable community events such as the City Lights and Stars outdoor concert series (6 in summer); Gospel Singing on the Mountain (summer); Monte Sano Homes tours (September); Great Mountain Fest (entire month of October); Candlelight Christmas (December); Holiday Magic Dinners (December); and the Spring Farm Festival (entire month of April).

During 2004, the Museum constructed a new visitors center (admission desk, orientation exhibit, and museum store), expanded the parking lot by 60%, and made key repairs to the Burritt Mansion. Those capital improvements enable the Museum to expand their programs and services. In approximately 5 years, the Museum plans on building a 6,700 building on the bluff to use for museum programs and be available for the community to hold conferences, meetings, receptions, and functions of all kinds.

I. North Alabama Railroad Museum

Director: Hugh Dudley
694 Chase Road
Huntsville, Alabama 35815
Phone: (256) 851-6276
Web Site: www.suncompsvc.com/narm/

Square Feet of Exhibit Space: Approximately 53,000
Acreage under Management: Approximately 30.5 acres

Annual Attendance: 10,000

The North Alabama Railroad Museum is located in the historic Chase Community, approximately 10 minutes east of downtown Huntsville. In addition to its routine operational hours, the Museum is also open by special appointment. Visitors can choose a free self-guided tour or a special guided tour of the depot, museum grounds, facilities and historic display train.

There is no admission to visit the museum, but donations are always welcomed. The guided tour, for a nominal price, offers an audio/visual presentation in a unique railcar, and a view of the interior of a restored Railway Post Office car, a day coach and a Pullman sleeping car. The centerpiece of the museum features the Chase Depot, the smallest Union depot in the country since it served more than one railroad when in service. Visitors attending the museum on a day when the train is running, can ride a vintage train over the museum's own Mercury & Chase Railroad.

Over twenty-seven pieces of major rolling stock have been preserved including both freight and passenger equipment and three historic locomotives (one off-site). Plans for future development are being made, and when completed the museum is sure to be a facility that is both unique and attractive while maintaining a character all its own.

J. Weeden House

Director: Barbara Lauster
300 Gates Avenue
Huntsville, Alabama 35801
Phone: (256) 536-7718

Acreage under Management: Approximately 1/2 acre

Annual Attendance: 3,000

The Weeden House, built in 1819, served as the Weeden family home for more than 100 years. In 1973, the Twickenham Historic District Association purchased the house and now operates it as a house-museum. It is named in honor of Maria Howard Weeden, a 19th Century artist and poet.

The first Historic American Buildings survey in 1935 included this grand, two-story residence. Drawings made of the structure are preserved in the Library of Congress.

The house is located in the Twickenham Historic District which is included in the National Register of Historic Places.

K. State Black Archives Research Center and Museum

Director: Ms. Diane S. Okwukwu

In the James Hembray Wilson Building, on the campus of
Alabama A&M University

P. O. Box 595 Normal, Alabama 35762

Phone: (256) 372-5846

Web Site: www.aamu.edu/archivemuseumcenter/

Acreage under Management: Located on Alabama A&M University Campus

Annual Attendance: 2,500 - 3,500

The primary purpose of the State Black Archives, Research Center & Museum is to create a repository of source materials on African American history and culture. The repository is housed in the James H. Wilson Building, a national register historic structure on the Campus of Alabama A&M University restored for the use of the State Black Archives, Research Center and Museum.

The bill establishing the State Black Archives Research Center and Museum was passed by the State legislature in 1987 and the repository opened in 1990. Its mission is outreach oriented and statewide in scope and therefore highly consonant with the land grant concept of the university. Since January 1995, its programmatic basis has had a four component focus which includes (1) on-loan/traveling exhibits and small permanent displays, (2) public forums, (3) archival materials and (4) historic sites and heritage education.

Group tours and lectures are scheduled throughout the year for public school students, campus groups and the public at large. Appointments should be arranged for group tours.

L. Von Braun Astronomical Society Observatory and Planetarium

President: Kenneth Farnell

P.O. Box 1142

Huntsville, Alabama 35807

Web Site: www.vbas.org/index.cfm

Acreage under Management: 10 acres

Annual Attendance: Membership stands at 150 members, events are open to the public

The Von Braun Astronomical Society is a non-profit volunteer organization of amateur and professional astronomers. The organization operates a planetarium and observatory located in Monte Sano State Park just east of Huntsville, Alabama.

Public astronomy programs are held on selected Saturday evenings at 7:30 p.m. Member's meetings are held on the third Friday of every month, and the public is welcome.

The Wernher von Braun Planetarium is used for a variety of public and special sky shows which are presented by both VBAS members and outside speakers drawn from the Huntsville community. Members are encouraged to develop and present their own shows. Observation of the night sky through various telescopes follow each program, weather permitting.

The Von Braun Astronomical Society was founded in 1954 by a high school student (Sam Pruitt) with the assistance and supervision of Wernher von Braun under the name Rocket City Astronomical Association (RCAA). During the formative years of the RCAA, guidance was provided by members of the Von Braun missile team. The first major project was the construction of the Conrad D. Swanson Observatory completed in 1956, currently housing a 21 inch Cassegrain Telescope.

The Von Braun Astronomical Society currently numbers over 150 members and welcomes anyone with an interest in Astronomy or observing the night sky. All programs, activities, and facilities upkeep are done by VBAS Member volunteers who give generously of their time to further other's interests in Astronomy.

The Von Braun Astronomical Society has facilities on top of Monte Sano, within the State Park. The organization maintains a planetarium, a domed observatory, and a roll-off roof observatory. Also in the complex is a well-stocked library, restroom, telescope storage room and computer room. The observing field has approximately 10 concrete pads for telescopes. The society also maintains and has available a rather large and varied inventory of telescopes.

M. Huntsville-Madison County Public Library

Director: Donna Schremsher
915 Monroe Street
Huntsville, Alabama 35805
Phone: (256) 532-5950
Web Site: www.hpl.lib.al.us/

Square Feet under Management: 143,000 at Main Branch
Acreage under Management: 4.5 acres at Main Branch
Hours of Operation: Monday-Thursday 9 a.m. - 9 p.m. (Main Branch)
 Friday-Saturday 9 a.m. – 5 p.m.
 Sunday 1 p.m. – 5 p.m.

Admission Rates: Free

Annual Attendance: 4,000 per day; 1,400,000 per year
1.2 million loans per year

Total System Volumes Available: 570,000, plus DVDs and CDs

The Huntsville Public Library is one of the most used community facilities in the Huntsville area, and one of the busiest systems in the State. Approximately 70% of Huntsville area residents have library cards, and the national average for a city the size of Huntsville is 47%.

The Huntsville Public Library serves the Huntsville community with materials and special programs that enrich the educational, recreational, and cultural life of its residents. This is done through the Main Library Branch and 11 branches that are geographically convenient to the public. The library also provides service through a Bookmobile.

The Huntsville Public Library serves as the gateway to the Alabama Virtual Library, a statewide database which is available 24/7, and provides access to nearly 4,000 periodicals, encyclopedias, and other reference material free to library patrons. Online public access computers, computer training and online catalogs are used heavily by area residents. The library also provides a collection of e-books. Computer usage is a popular service. Patrons used library computers approximately 1988 hours during 2003.

Special Services and Programs

The Main Library houses a Subregional Library for the Blind and Physically Handicapped located on the 2nd floor. The library also offers summer reading programs for children each year. Typically, several thousand children are involved in this program. Other activities offered are young adult programs, preschool story times, computer labs, and homework assistance.

Special programs of interest to the public are offered through the course of the year. Most recently, the facility sponsored "*A Century of Flight - The Rocket City Connection*," with 15 programs and a large exhibit highlighting Huntsville, NASA, and Redstone Arsenal's importance and history.

The library is supported through municipal and county appropriations, library organizations, and private and corporate donations. Local defense contractors provide financial support as well.

In addition to area museums and other facilities which promote cultural, regional, and educational awareness, the Huntsville-Madison County area has very active arts communities and other organizations that come together to positively contribute to the quality of life experienced by residents of all ages. Many employees and defense contractors associated with Redstone Arsenal and NASA are active in this community, and play an active role in participating in or supporting the Arts. The role these individuals play benefits the community as a whole, as they serve to create and maintain an environment that is culturally intensive.

III. Organizations Dedicated to Promoting the Arts and Quality of Life

A. The Arts Council

Director: David Todd
700 Monroe Street
Huntsville, Alabama 35801
(256) 519-2787
Web Site: www.artshuntsville.org/

1. General

The Arts Council (TAC) produces, promotes, coordinates and advances the arts to enrich the quality of life, education, and economy of the greater Huntsville-Madison County community. Founded in 1963, TAC is a private, non-profit arts organization led by a 27-member board of directors and 7 professional staff. The Arts Council offers five core programs:

Arts in Education - providing resources and support to arts educators, giving children opportunities to grow, and working to strengthen K-12 education through the arts.

- Arts in a Box - multi-disciplinary curriculum tool kit
- Artists in Residence
- Professional Development for Teachers
- ArtVentures! summer arts day camp
- Panoply Fifth Grade Days, Billboard Competition and Student Art Tent

Panoply Arts Festival - an annual three-day outdoor festival featuring performances, exhibits, arts demos, and hands-on activities.

Concerts in the Park - free summer concerts in Big Spring Park, co-produced with the City of Huntsville, presenting jazz, rock, classical, big band, country, and everything in between.

Community Information Services - promoting information exchanges between the arts and the community at large, including the annual arts insert in the Huntsville Times, Focus on the Arts on WVNN Radio, and the Arts Huntsville web site.

Arts Services - facilitating the work of member arts organizations through grants, technical assistance workshops, networking and information sharing.

2. Arts Organizations

There is an opportunity for everyone in the community to get involved in the arts in Huntsville-Madison County. There are a variety of

organizations available that are always looking for new members. A sampling of arts-oriented organizations follow:

Alabama Hispanic Association
American Association of University Women (AAUW)
American Guild of Organists
American Institute of Architects, North Alabama Chapter
Ars Nova School of the Arts
Broadway Theatre League
Burritt on the Mountain
Community Ballet Association
Dance Theatre of Huntsville
Danz Arts Co. Inc.
Decatur Concert Association
Delta Zeta Alumnae
duMidi Women's Club
Earlyworks Museum Complex
Fantasy Playhouse Children's Theater
Friends of the Symphony
Hawthorne Conservatory
Historic Huntsville Foundation
Huntsville Art League (HAL)
Huntsville Chamber Music Guild
Huntsville Community Chorus Association
Huntsville Concert Band
Huntsville Gem & Mineral Society
Huntsville Literary Association
Huntsville Museum of Art
Huntsville Music Study Club
Huntsville Opera Theater
Huntsville Photographic Society
Huntsville Piano Teachers Forum
Huntsville Pilgrimage Association
Huntsville Symphony Orchestra
Huntsville Symphony Orchestra Guild
Huntsville Youth Orchestra
Huntsville-Madison County Art Education Association
Huntsville-Madison County Botanical Garden
Huntsville-Madison County Convention & Visitors Bureau
Huntsville-Madison County Historical Society
Independent Musical Productions
Jill's Studio of Dance
Junior League of Huntsville
KOOROC, LLC
Madison Community Chorus
Metropolitan Youth Orchestra of Huntsville
Monte Sano Art Show Association
Noones Art Gallery
North Alabama Railroad Museum
North Alabama Woodcarvers Association
North East Alabama Craftmen Association (NEACA)

Oakwood College
Pointe Station
Renaissance Theatre
SABA School of Dance & International Performing Arts, LLC
SPEBSQSA/Rocket City Barbershop Chorus
Susan & Vickye's Studio of Dance
Tennessee Valley Jazz Society
The Brass Band of Huntsville
Theatre Huntsville
Twickenham Historic Preservation District
UAH-College of Liberal Arts
Valley Harmony Chorus of Sweet Adelines International
Women's Guild of Huntsville Museum of Art

The Arts Council also provides information concerning a wide variety of educational programs for children through adults. Arts-related camps for children are available as well.

More information concerning each group's activities can be found at The Arts Council we site at: www.artshuntsville.org.

3. Redstone/Defense Contractor Support for the Arts

The arts community receives much support from the area's Redstone Arsenal and NASA affiliated employees and defense contractors. Seven major arts organizations in particular receive a tremendous amount of funding and volunteer support from these groups. For example:

Huntsville Heritage Foundation:

- At least 30% of volunteers work for or have retired from the Army, NASA or a defense contractor.
- Financial support comes from dues and donations from persons who work for/retired from these companies.
- Received \$7,000 from Boeing during 2003 for a capital campaign effort.

Huntsville Community Chorus Association:

- Teledyne Brown in-kinds their printing needs including posters, programs, newsletters, and normally sponsor one show each season. Sponsorship of a program is \$1,500.
- Teledyne Brown has a matching Gifts Program, where the company will match an employee's gift of \$50 - \$5,000 per year.
- Boeing usually sponsors a HCCA production each year ranging from a \$1,000 - \$2,000 sponsorship.
- Lockheed-Martin regularly contributes \$1000 each season
- They also receive support through selling ads in their programs from defense companies.

Theatre Huntsville:

- Many individual and family donors work for defense companies.
- CAS, Inc. has supported Theatre Huntsville through show sponsorships running from \$1000 - \$2500.

- Intergraph has also supported this group through in-kind donations for printing.
- Of Theater Huntsville's approximately 75-person volunteer membership, approximately 35% work for defense contractors and another 25% are actually employed directly by the government and work in the defense industry. There are also additional 150 non-Theater Huntsville members who volunteer to work or participate with Theater Huntsville productions and are employed by defense contractors and/or the government in the same ratio.
- Again.... of the approximately 75-person volunteer membership, approximately 15-20 people are employed either by NASA's MSFC or the Army on Redstone. Of the 150 non-member volunteers 35-40 people are employed by NASA, or the Army on Redstone with another dozen or so at the Space and Missile Defense Command or the Army Corp of Engineers.

Fantasy Playhouse:

- Teledyne Brown is a major sponsor. Also in-kind printing is provided to the organization
- Boeing has made past contributions of \$15,000
- Majority of technical support volunteers are working for defense contractors
- Major volunteers are all retired NASA or contractor employees.

Huntsville Symphony Orchestra:

- 19 defense companies have contributed to HSO for the 2003-2004 season for a total of \$34,485.00.
- Out of the 300 volunteers of the Huntsville Symphony Orchestra Guild, 240 of the volunteers are associated with defense contractors.

Broadway Theater League:

- Teledyne Brown is a major sponsor.

Botanical Garden:

- Defense contractors provide significant financial and volunteer support to the Botanical Garden.
- 14 different companies are supporting them during 2003 for a total of \$114,000.
- In the past 5 additional companies have supported them for a total of \$136,500.
- They have over 1000 active volunteers. Approximately 80 are employees of Redstone or NASA and about 100 are retired from Redstone or NASA.
- Two retired former Commanding Generals are on the Botanical Garden Board of Directors and Advisory Board.

Other:

- Teledyne Brown also sponsors events and programs for the Symphony Orchestra, Broadway Theater League, Huntsville Museum of Art, Renaissance Theater and Fantasy Playhouse. The amounts vary by

organization and seasons. A Symphony Orchestra sponsorship may run about \$5,000.

The support of these individuals and companies are a tremendous asset to the community, and contribute themselves to the high quality of life that is enjoyed throughout the region.

B. The Huntsville-Madison County Senior Center

Director: Tom Glynn
2200 Drake Avenue
Huntsville, Alabama 35805
(256) 880-7080
Web Site: www.seniorview.com/

Hours of Operation: Monday-Friday, 7:30 a.m. - 4:30 p.m.

1. General

The Huntsville-Madison County Senior Center offers a unique combination of enrichment programs and care services for people 60 years of age or better. The goal of the Senior Center is to foster community involvement, enhance dignity and support independence for all participants; as such, it is highly successful, and provides a high quality of services for the area's senior population.

The Center's nationally recognized programs and facility place them among the best Senior Centers in the United States. There are several overriding reasons why this is the case:

- There is an exceptionally high level of community interest and support
- Active participation of all members of the Board - all volunteers who have expertise in interrelated fields
- Talented, dedicated personnel who are committed to work as a team to achieve goals of the Senior Center
- More than 40% of Madison County seniors use the Center for programs and/or services
- The Center enjoys senior involvement that is 3 times the national average
- The state-of-the-art facility was specifically designed for senior use, has 45,000 square feet and 82 rooms
- The Senior Center places more than 600 senior volunteers at over 100 local non-profit agencies each year, and 1500 volunteers support their programs
- 137 local merchants participate in the "Senior Discount" program
- The Center maintains at least 300 low income people, who would otherwise be in nursing homes, in their own home
- Over 7,000 of *SeniorView*, the Center's highly regarded magazine, are distributed throughout Madison County monthly
- There is NO membership fee

2. Activities and Services

The Center offers personal enrichment programs and care services.

Personal enrichment programs include:

- Performing arts - Orchestra, chorus, and acoustic workshops are offered
- Recreation - Organized activities range from table games, trips and dances, to sporting events, line dancing, and performing arts
- Creative skills - Pottery, woodworking, painting, needlework and stained glass are some of the classes offered continuously
- Health - Maintenance programs feature exercises, screenings, education, and grief support
- Education - Language, writing, genealogy, and computer classes are offered
- Special transportation services - Assistance is provided for those unable to use the City Shuttle bus
- Retired and Senior Volunteer Program - Seniors provide valuable services for area Non-Profit Agencies
- Satellite Centers - Over 40 satellite groups, extensions of the main Senior Center, meet throughout Madison County.

Care services include:

- Meals on Wheels - Volunteers deliver nutritious lunches to hundreds of homebound Seniors during the week
- Nutrition Centers - Hot meals served in a social atmosphere at six locations in Madison County, including the Senior Center
- Community-Based Care - light housekeeping services for seniors; based on need not income. Information and referrals concerning local senior services
- Adult Day Health Care - Supervised weekday program for mentally or physically disabled adults

Activities are available for individuals of all ages in the Huntsville area community that enhance each person's quality of life. In addition to cultural and other activities, there are many recreational activities in which persons may participate. The Tennessee Valley Region is geographically diverse and has rivers, lakes, mountains, and valleys. The nature of the area presents many opportunities for a variety of recreational participation.

IV. Recreational Opportunities

A. Facilities and Natural Features

1. Monte Sano State Park
5105 Nolen Avenue
Huntsville, Alabama 35801
(256) 534-3757
Web Site: www.dcnr.state.al.us/parks/monte_sano_1a.html

Monte Sano State Park is comprised of 2,140 acres on top of Huntsville's Monte Sano Mountain. The park provides the following amenities: camping (14 cabins and 89 campsites), mountain top hiking, playground, open-air amphitheater for outdoor concerts and performances, and picnic facilities. Work is being done to restore the old Monte Sano Tavern. It will be used for community events.

2. Ditto Landing
Huntsville - Madison County Marina & Port Authority
P.O. Box 14250
Huntsville, Alabama 35815
Phone: (256) 882-1057 (Administrative Office)
Web Site: www.nservice.com/ditto_landing

Ditto Landing Marina, operated by the Huntsville-Madison County Marina and Port Authority, is located in Madison County on the Tennessee River. The marina was recently honored with the prestigious "Clean Marina" Award, presented by the Tennessee Valley Authority. The marina provides wet slips, dry storage, transient boat docks, campgrounds, picnic areas, and pavilion rentals. Recreational activities include tennis and fishing. Bass, crappie, catfish, and bream are a few of the many fish found in abundance here. Ditto Landing also has a "Senior Citizens Fishing Pier" reserved and designed especially for our senior guests. The marina also has a ballpark for organized sports activities.

3. Tennessee River

The Tennessee River is located along the southern boundary of Madison County and Redstone Arsenal. The river itself provides many recreational activities for its users, including fishing, swimming, tubing, water skiing, and boating.

4. Joe Wheeler State Park
201 McLean Drive
Rogersville, Alabama 35652
(256) 247-5466
Web Site: www.dcnr.state.al.us/parks/joe_wheeler_1a.html

Joe Wheeler State Park is a sprawling resort park located in nearby Rogersville, Alabama. The park provides various types of accommodations. Recreational activities provided are boating and fishing, golf, tennis, and swimming. Picnic facilities are also available.

5. Wheeler National Wildlife Refuge
2700 Refuge Headquarters Road
Decatur, Alabama 35603
(256) 350-6639
Web Site: <http://wheeler.fws.gov>

Wheeler National Wildlife Refuge is located in nearby Decatur, Alabama. It offers a variety of recreational opportunities including a Visitor Center, wildlife observation, wildlife photography, fishing, hunting, hiking, boating, and educational interpretive programs. A wildlife observation building provides visitors an opportunity to view various types of wildlife. Six improved boat launch areas provide access to the Tennessee River (Wheeler Reservoir) and several of its tributaries. Bank fishing opportunities also exist.

6. Lake Guntersville State Park

7966 Alabama Highway 227

Guntersville, Alabama 35976-9126

(256) 571-5444

Web Site: www.dcnr.state.al.us/parks/lake_guntersville_1a.html

Lake Guntersville State Park encompasses 5,909 acres in Guntersville, Alabama. A variety of accommodations are available, as is a convention center. Recreational activities include swimming, boating, fishing, golf, tennis, and hiking. Other amenities include a nature center and picnic areas. Eagles tend to congregate at the park, and park organizers offer special Eagle Awareness programs during the month of January.

7. Municipal and County Parks and Playgrounds

There are over 50 park and playground facilities located in the City of Huntsville. The City of Huntsville maintains over 1400 acres of park land and the facilities located thereon. **Map 7.2** shows the locations of these parks and facilities. Parks and recreational facilities and programs are managed in the City of Huntsville by the Huntsville Parks and Recreation Services (www.hsvcity.com/recreation/index.php). The City of Huntsville operates various recreational facilities and gyms and offers a full complement of recreational activities for youth and adults. These activities will be explored further in this report.

8. Conservation Lands

Local leaders realize there must be a balance between developing land and conserving properties that have a regional and natural significance. **Map 7.3** shows the conservation properties located in the Huntsville area. Of these, the most notable are the Hays Preserve, the Goldsmith-Schiffman Wildlife Sanctuary, and the properties of the Land Trust of Huntsville and North Alabama.

Hays Preserve (www.hsvcity.com/recreation/hayesnature/index.php)

Nestled in the old Big Cove area is the largest donation of land to the City of Huntsville, the Hays Nature Preserve. Encompassing about 600 acres of bottomland forests, tupelo sloughs, and creeks, the Hays Preserve provides for passive recreation. Picnicking, mountain biking, walking and nature study is available along the 7 miles of primitive trails. A 1.5 mile greenway, suitable for the handicapped and street bicycles also connects the Preserve to the Hampton Cove area. Once the

greenway is complete, it is expected that 20,000-30,000 people per year will utilize the Preserve.

The long term goal is to create a Watershed Education Center at the Preserve, with a nature center that is geared to handle two school groups at a time. The Preserve has two miles of river frontage on the Flint River, and short canoe trips can be planned. Horseback riding is also a favorite pastime. All groups are welcome at the Preserve, and group tours are a regular event.

In 2003, the Hays Nature Preserve was designated as a part of the North Alabama Birding Trail. There is a great diversity of wildlife and wild habitats on the Preserve. Special events occur throughout the year—Earth Day in April, a River Fest in the fall and good old-fashioned Halloween hayrides through “Sleepy Hollow” and “Dracula’s Lair” in late October.

The Preserve is open for daylight use only, except for the special Moonlight Walks and Astronomical events.

Goldsmith-Schiffman Wildlife Sanctuary

The Goldsmith-Schiffman Wildlife Sanctuary is the newest land donation to the City of Huntsville. The sanctuary encompasses 300 acres in the Big Cove area. Plans are to construct a visitor’s center, wildlife overlooks, bike trails and a canoe run down the Flint River. The land is located near the Hays Preserve. Together with the Hays Preserve, the community will possess a wildlife preserve of about 1,000 acres.

The Land Trust of Huntsville and North Alabama

[\(www.landtrust-hsv.org/\)](http://www.landtrust-hsv.org/)

The Land Trust of Huntsville and North Alabama is a non-profit organization dedicated to preserving lands for public use to enhance recreation, education, conservation and prosperity in the North Alabama region. Known as the community’s “Other Space Program,” the Land Trust has contributed greatly to the area by preserving 3,240.5 acres of land that is open to the public’s recreational use. Land Trust properties provide for these activities: picnicking, mountain biking, bird watching, nature study, and horseback riding. Horseback riding is permitted at the Wade Mountain Preserve. Tours are available at the Three Caves - a unique property owned by the organization.

9. Greenways

Greenways are protected corridors of open space along natural features, such as streams or ridges, or along man-made features such as abandoned railroad corridors or scenic roadways. Greenways protect important community resources, such as historic sites and streams, and connect these resources to each other and to parks, schools, and neighborhoods. They also provide recreational opportunities such as hiking, biking, canoeing, walking, jogging, and fishing, and provide a place for people to enjoy nature.

The City of Huntsville has adopted a master plan to guide the development of greenways throughout the community. When complete, the system will include over 130 miles of interconnected trails, including canoe trails, pedestrian/bike trails, and hiking trails. Currently, four greenways are open to the public: Aldridge Creek, Big Cove Creek, Indian Creek, and Wade Mountain. The greenway at Big Cove Creek allows for horseback riding.

10. **Bike Routes**

The City of Huntsville has addressed the needs of bicyclists in the community by developing and adopting the City of Huntsville Bikeway Plan. The plan, approved by the Metropolitan Planning Organization, identifies 34 different, yet interconnecting, bike routes to be placed throughout the city within a four-year period. All routes will be identified by signage. Two different types of routes have been designed: basic and advanced. The basic routes traverse through areas with a low traffic volume and have been designed for beginning or novice bicyclists. The advanced routes may have higher traffic volume and incline in grade, and have been designed for experienced bicyclists. The bike routes will cover 147 miles within the City of Huntsville.

The bike routes provide access to existing and planned greenways in the city. Additionally, the bike plan was coordinated with the city's public transit routes. The plan recommends that bike racks be installed on all city Shuttle buses to encourage multi-modal transportation uses. Integrating public transit with bicycling will allow multi-modal transit users to cover more distance and/or overcome geographical barriers that are difficult for bicyclists to negotiate.

Input and recommendations concerning the plan's development and its implementation were received from a Bicycle Advisory Committee, comprised of citizens with interests and expertise in bicycling, members of various safety associations, and technical city and county staff. The committee will continue to review and discuss various ongoing elements of the plan as necessary.

Funding for the four-year project will be provided by the City of Huntsville and through state and federal grants. At the present time, 6 routes have been completed. Currently, City of Huntsville Planning Division staff are in the process of updating the Bike Plan.

11. **Point Mallard**

P.O. Box 488

Decatur, Alabama 35602

(256) 341-4900

Web Site: www.pointmallardpark.com/index2.shtml

Point Mallard Park is located in nearby Decatur, Alabama. It is owned by the City of Decatur, and open 365 days a year. The park property

comprises 500 acres. It is a family-oriented park, with multiple activities available. The facilities provide for camping, golfing, ice skating, tennis courts, batting cages, hiking/jogging/biking trails, and a driving range. Point Mallard also has a wave pool – the first in America.

The park hosts community festivals every year: the Alabama Jubilee in May, and the Spirit of America Festival during July 3-4.

12. Madison County Lake
2501 County Lake Road
Gurley, Alabama 35748
(256) 776-4905

The Madison County Lake is a 105 acre lake located 11 miles east of Huntsville. It is a public fishing lake, and no other aquatic activities are allowed. It is stocked with bass, crappie, catfish, bluegill, and redear sunfish.

Amenities available at the lake include: Clean public restrooms, a wide variety of fishing tackle, live and artificial baits, and other fishing supplies, as well as drinks and refreshments. An accessible fishing pier makes it easy to reach deeper water without using a boat. Boats, electric motors and batteries are also available for rent; a launching ramp is available for anglers with their own boats.

13. YMCA of Huntsville & North Alabama
1000 Weatherly Road
Huntsville, AL 35803
256-883-(YMCA)-9622

The YMCA of Huntsville and North Alabama just opened a new \$6 million, 54,000 square foot facility in south Huntsville during the end of 2003. Available amenities are: treadmills, stairclimbers, bicycles, free weights, aerobics theater, swimming pool, a therapeutic pool, a kid's pool, whirlpool, sauna, six basketball goals, two indoor soccer goals, a suspended walking and jogging track, a kid's gym, a Teen Development Center, a Child Watch Area (babysitting for parents using the facility), and community meeting room. In addition to routine sports offerings, the facility also offers aerobics classes, swimming lessons, organized youth sports, and fitness evaluations.

The YMCA also operates a summer youth camp for children ages 7-15 in nearby Guntersville, Alabama.

14. Benton H. Wilcoxon Municipal Ice Complex
3185 Leeman Ferry Road
Huntsville, Alabama 35805
(256) 883-3774
Web Site: www.iceskate.org

The Benton H. Wilcoxon Municipal Ice Complex in Huntsville, Alabama is a relatively new facility, offering two NHL size rinks, a fully stocked concession stand, four party rooms, and arcade games for the entire family. The facility also operates the SkateWorld Pro Shop, offering the largest selection of hockey equipment in the area. It offers both competitive and recreational skating, and daily public sessions. The Ice Complex is the home rink of the Huntsville Amateur Hockey Association (www.hahahockey.org/) and the Huntsville Figure Skating Club.

The Ice Complex has hosted skating events in the past, and has six public locker rooms, spectator seating, a large conference room, and a ballet room.

Additionally, skating lessons are available, as well as competitive figure skating and hockey.

15. Von Braun Center
700 Monroe Street
Huntsville, Alabama 35801
(256) 533-1953
Web Site: www.vonbrauncenter.com/

The von Braun Center, named for rocket pioneer Dr. Wernher von Braun, hosts over 600 events per year and brings in almost a million people. The von Braun Center exists today because local leaders followed a community vision that valued the cultural and performing arts. This vision was endorsed by Dr. von Braun and the community's German friends at Redstone Arsenal.

In addition to hosting conferences and special events, the von Braun Center hosts many different entertainment venues in its 170,000 square foot facility. The facility is comprised of various components that together make a center where quality venues are performed, and sporting events are played. Most of these events occur in the von Braun Center's Playhouse, Arena, and Concert Hall.

The von Braun Center is the home of several local sports teams, including the Huntsville Havoc Hockey Team and the University of Alabama in Huntsville Hockey Team.

16. Joe W. Davis Stadium
3125 Leeman Ferry Road
Huntsville, Alabama 35805
(256) 882-2562

Joe W. Davis Stadium, a 10,200-seat multi-purpose stadium is located on four acres on South Memorial Parkway between Drake Avenue and Airport Road at Leeman Ferry Road. The stadium, named after former Huntsville Mayor Joe Davis, can be converted to accommodate football and soccer. The stadium is home to the Huntsville Stars, a AA

professional baseball team which plays 70 home games each year. The Stars are a member of the Southern League.

B. Sporting Events and Available Activities

1. Spectator Sports

There is an opportunity to attend sporting events in the city of Huntsville. The city is home to several professional sports teams, and has two universities that provide collegiate sports.

a. Baseball

The Huntsville Stars (www.huntsvillestars.com), a Class AA baseball affiliate of the Milwaukee Brewers, plays home games at the 10,259 seat Joe Davis Stadium. Former Stars players include Jose Canseco and Mark McGuire.

b. Hockey

The Huntsville Havoc (www.huntsvillehavoc.com) play at the von Braun Center. The team is affiliated with the South East Hockey League.

c. College Sports

Huntsville's two universities: the University of Alabama in Huntsville (UAH) and Alabama A&M University, provide plenty of opportunities to watch collegiate sports. UAH has a nationally recognized hockey program and popular basketball program. Alabama A&M has a football team that plays in its own stadium at the university. It also has a popular basketball program and an award-winning women's volleyball program. More information concerning all collegiate sports available can be found the UAH Athletic Department (www.uah.edu/Athletics) and Alabama A&M University Athletic Department's (www.aamu.edu/PR/sports/athletics.htm) web sites.

d. Sports Festivals

The City of Huntsville has its own Huntsville Sports Commission to recruit, organize, and stage amateur sporting events. The City has hosted many competitions and tournaments for both youths and adults (State soccer tournaments, U.S. National Synchronized Skating Championship, among others). During 2004, the City hosted the Alabama Sports Festival, the State High School Soccer Tournament, and college level soccer competitions.

2. General Participatory Sports

The Huntsville area has a multitude of recreational opportunities available for adults and youths. The City of Huntsville Parks and Recreation Services provide organized sports and other recreational activities. Additionally, several private clubs and organizations exist that embrace persons with the same athletic interests and pursuits. A comprehensive list of available activities follows:

a. Biking

Mountain biking is available at Land Trust properties. The City of Huntsville also has bike routes available, and has plans to "sign" a total of 34 routes. The 111-year old Spring City Cycling Club (www.springcity.org/) organizes a wide variety of bicycling activities suitable for all biking enthusiasts at all levels.

b. Walking Trails/Hiking

Walking and hiking trails are available at Monte Sano State Park, Burritt Museum, Green Mountain Nature Trail, Hays Preserve, area greenways, and the Huntsville-Madison County Land Trust properties. Several trail maps are available on the Land Trust's web site at: <http://www.landtrust-hsv.org/Properties.htm>.

c. Running Courses and Racing

The Huntsville Track Club (www.huntsvilletrackclub.org/) provides information on running and racing in Huntsville and the Tennessee Valley. The group directs various running events and races during the year, including the annual Rocket City Marathon - the first one held in the State of Alabama over 26 years ago.

Additionally, the City of Huntsville's John Hunt Park has a 3-mile cross-country running course. The Huntsville Track Club, a local running club, holds events every Tuesday night and numerous special running events on Saturdays during the entire year. Area high schools use the course for metro & sectional cross-country running meets. The City of Huntsville Parks and Recreation Services has sponsored annual spring and fall running events open to any runner wanting to participate.

Madison County maintains the Madison County Par Course, a 2-mile jogging trail located in the City of Huntsville.

d. Adult Softball

The Adult Softball Program is headquartered at the City of Huntsville's Metro Kiwanis Sportsplex

(www.hsvcity.com/Recreation/sportsplex/index.php), and consists of three (3) seasons (spring, summer, & fall) for weekday play. Sunday League will have two (2) seasons (spring & fall). All seasons will consist of ten (10) games and a post-season tournament. Organizers are able to accommodate 96 teams maximum during the weekday leagues, growth is possible for the Sunday night league. Leagues are broken down into Sunday night, Monday/Wednesday, and Tuesday/Thursday. Games are played at 6PM, 7PM, 8PM, and 9PM. Check the website for the most updated information.

e. Golf

The Huntsville area provides many golfing opportunities through both public and private courses. A listing of public courses follow:

Colonial Golf Course

4000 Colonial Dr.

Meridianville, AL 35759

Phone: 256-828-0431

Rates from: \$25.00

18 holes, par 72, offers large Bent grass greens and open fairways. 8 miles north of Huntsville on U.S. 231 at Meridianville.

Fox Run Golf Course

870 McCollum Rd.

Meridianville, AL 35763

Phone: 256-828-7564

Rates from: \$21.00

18 holes, par 72, with Bermuda grass, 9 miles north of Huntsville in Meridianville on McCollum Road.

Hampton Cove Golf Course

(www.rtjgolf.com/courses/hampton_cove/)

Hampton Cove, Alabama

Phone (256) 551-1818

Rates: \$50.00

18-hole Highland Course and 18-hole River Course, which encompasses 26 ponds, have Bent grass greens. The 18-hole Short Course is on a par 3 layout.

This course is the northernmost of the nine stops on Alabama's famed **Robert Trent Jones Trail**. The 54 holes cover 650 acres in a river valley setting surrounded by mountains. A 35,000-square-foot clubhouse contains a large golf shop and dining room. A veranda overlooks the courses.

Harvest Hills Golf Course

791 Harvest Rd.

Harvest, AL 35749

Phone: 256-890-0705

18-hole, par 71, with driving range 10 miles north of Huntsville via Hwy 53 on Harvest Road.

Huntsville Municipal Golf Course

(www.hsvcity.com/Recreation/golf.php)

2151 Airport Rd.

Huntsville, AL 35801

256-880-1151

18-hole course public facility covering 6,500 yards. The course has Bermuda tees, fairways with Bent grass greens, grass and sand bunkers, mounds and water hazards. A practice putting green, a driving range and a sandwich shop is available. Just off South Parkway (U.S. 231) at Airport Road.

Monrovia Golf Course

7130B Hwy 72 W

Huntsville, AL 35806

Phone: 256-837-9469

18-holes with small greens, giving a challenge on the approach shots, Par 72. 8 miles west of downtown or just 3 miles from Madison Square Mall on U.S. 72 West. The course has Bermuda greens and level tree-lined fairways.

Redstone Arsenal Golf Course

(Open to active/retired or reserve military ID holders)

4140 Goss Road

Redstone Arsenal, AL 35898

Phone: 256-883-7977

<http://www.redstonemwr.com>

This beautifully landscaped facility offers 27 challenging and scenic holes, a modern club house and pro shop, and a short order restaurant for your convenience. Also provided is an excellent driving range for putting, chipping, and sand play.

Sunset Landing Golf Club

346 James Record Road

Huntsville, AL 35801

Phone: 256-464-5050

18-hole newly renovated daily fee course with well conditioned Bent grass greens, Par 72 (located at the Huntsville International Airport)

Private Courses:

Private Courses are available for member and guest play at The Ledges, Huntsville Country Club, Valley Hill Country Club, and Cherokee Ridge Country Club.

f. Putt Putt - Miniature Golf

The Huntsville area has several putt putt - miniature golf courses. The most recent course is located at Insanity Skate Park (www.insanityskate.com). Their Harris Challenge Golf Course presents miniature PGA stylized greens, sand traps, roughs, and water traps.

g. Hockey

Amateur competitive hockey is available in Huntsville through the Huntsville Amateur Hockey Association (HAHA) (www.hahahockey.org/) from age 4 to adult. The Association organizes three levels of hockey. There is a house league for adults, a house league for youth, and a competitive travel league for youth seeking competition beyond the local level. High School Varsity and Junior Varsity teams from Bob Jones High School, Catholic High School, Huntsville High School, Grissom High School, and Sparkman High School are organized through the HAHA. The HAHA is a member of USA Hockey and its affiliate Southern Amateur Hockey Association, which qualifies their players to participate in USA Hockey programs such as select hockey camps, and district, and regional playoffs. The HAHA home rink is the Benton Wilcoxon Ice Complex.

h. Figure Skating

Recreational and competitive figure skating is available at the Benton Wilcoxon Ice Complex. Local activities are organized through the Huntsville Figure Skating Club. The Club's mission is to encourage full participation in the sport of figure skating by everyone. The Club has approximately 200 members, with skaters from Basic Skill Levels to Senior Levels. Ice skating lessons are taught at the Ice Complex by highly trained staff.

i. Swimming

The Brahan Spring Park Natatorium (www.hsvcity.com/recreation/aquatic.php) in Huntsville accommodates major competitive swimming events and features 2 three-meter and 2 one-meter diving boards. The Olympic-size pool is heated and covered, featuring a roof that is rolled back during the summer to make an outdoor pool area. The Aquatic Center, also located in Huntsville is a covered and heated pool that provides equipment for the handicapped and offers learn-to-swim classes, aerobics classes and range of motion classes taught by professionals. Huntsville's newest aquatic facility located inside Blue Spring Recreation Center (256-851-4003) features 2 one meter diving boards, provides equipment for the handicapped and offers learn-to-swim classes.

Competitive swimming for youths is available in Huntsville.

j. Water Aerobics

The City of Huntsville offers water aerobics classes at the Aquatic Center. Several private area fitness centers offer classes as well.

k. Frisbee Golf

Huntsville boasts three permanent 18-hole disc golf courses: one at Brahan Springs Park, one on Redstone Arsenal, and one on the campus of UAH. Huntsville's Disc Golf Club, the Rocket City Chain Gang, has been host to numerous professional disc golf tournaments including the 1983 and 1993 World Championships, and a few of the country's top ranked players live in the Huntsville area.

l. Ultimate Frisbee

An Ultimate Frisbee (www.huntsvilleultimate.com/) club is offered in the Huntsville area. The group is associated with the National Ultimate Player's Association, and provides tournaments in the Huntsville area.

m. Rugby

Competitive rugby is available through the Huntsville Rugby Club (www.huntsvillerrugby.com/). The Club is a division three member of the Mid-South Rugby Club, and practices at Rick Cooper Memorial Park in the City of Huntsville.

n. Volleyball

Competitive volleyball is available through the City of Huntsville Parks and Recreation Services as well as the Huntsville Volleyball Association (HVBA). The HVBA organizes various volleyball leagues in the Huntsville area.

o. Water Skiing

Abundant water resources in the region provide plenty of opportunities to water ski at Guntersville Lake and on the Tennessee River.

p. Snow Skiing

Snow skiing is offered at nearby Mentone, Alabama at Cloudmont Ski and Golf Resort (www.cloudmont.com/index_main.htm). The resort has two

one-thousand foot beginner-intermediate slopes. Additionally, the Huntsville Ski Club (<http://ourworld.cs.com/hsvskiclub/>) organizes stateside and international ski trips with its members.

q. Hunting/Fishing

Within an hour's drive of Huntsville, anglers can have the opportunity to catch a variety of species in four Tennessee River reservoirs - Guntersville, Wheeler, Wilson and Pickwick lakes. The former world record blue catfish weighing 111 pounds came from Wheeler Lake in 1996, and anglers have caught largemouth bass up to 15 pounds, smallmouth bass up to 9 pounds and spotted bass up to 5 pounds. Other popular species include crappie, sauger, bluegill, white, striped and hybrid bass.

In Tennessee, Tims Ford Lake near Fayetteville offers good camping and fishing opportunities, including for stocked rainbow trout in the Elk River below the dam. Crappie and striped bass also are often targeted by anglers.

Hunting is popular, with deer, turkey, waterfowl and small game seasons open about eight months of the year. Public areas include the Skyline-Martin Wildlife Management Area (WMA) near Scottsboro and Swan Creek WMA north of Decatur, while limited opportunities exist on the Wheeler National Wildlife Refuge and Redstone Arsenal.

r. Spelunking

Spelunking, or caving, is definitely available in the Huntsville area. The Huntsville Grotto (www.caves.org/grotto/huntsville/) is an official club of the National Speleological Society (www.caves.org/). The National Society is headquartered in Huntsville. The local group plans activities and caving expeditions.

s. Fencing

The Huntsville Fencing Club is organized to provide classes for beginners and a location for experienced fencers to practice.

t. Canoeing and Kayaking

Canoeing and kayaking activities are available along the many waterways in the area. The Huntsville Canoe Club is an organized group that coordinates river trips.

u. Rowing

The Rocket City Rowing Club (www.rocketcityrowing.com) provides opportunities for novice and experienced rowers, and

conducts clinics to introduce people to the sport of rowing. Activities are provided for both junior level and adult level groups.

v. Horseback Riding and Equestrian Activities

The Huntsville-Madison County area offers horseback riding and equestrian activities. 3H Stables provides horseback riding adventures on mountain trails. Additionally, several other stables are in the area for boarding horses. Horseback riding lessons for all ages are available. Several clubs are offered as well: The Hazel Green-Toney Saddle Club (www.hgtsc.org/) and the Huntsville Pony Club.

w. Polo

The Hurricane Creek Polo Club of New Market provides horse lovers with a competitive side a chance to polo.

x. Roller Skating

Several roller skating rinks are located in the Huntsville area. The activity is popular with the area's youth.

y. Bowling

Several bowling alleys are located in Huntsville. Competitive League play is available.

z. Rocket City Raceway

The Rocket City Raceway offers a motorcross/supercross style track for dirt bike enthusiasts.

aa. Spring City Triathletes

The Spring City Triathletes exist for the promotion and development of triathlon and other multi-sports for sport, fitness, recreation, and safety education. The Spring City Triathletes (www.springcitytri.org) host The Heart Center Rocketman Triathlon on Redstone Arsenal each summer attracting hundreds of triathletes from all over the southeastern U.S.

bb. Dance

A variety of dance activities are available for all ages. Students can take ballet, tap, jazz, ballroom, bellydancing, or modern dance. Competitive dance is also available for young persons enrolled in dance classes. There are also various clubs that promote square dancing and ballroom dancing.

cc. Basketball

In addition to the organized city, county, and church league play for youth, the YMCA of Huntsville & North Alabama offers basketball activities for adults at their new facility. The City of Huntsville Parks and Recreation Services offers adult basketball at its Berachah Gym.

dd. Tennis

Eighty-nine tennis courts are operated by the City in various locations. During 2004, the City of Huntsville expanded its tennis facilities with the construction of a new 31 court Tennis facility located in John Hunt Park. The courts consist of 24 clay, 6 hard, and one clay championship center court. The facility offers a new state of the art two story club house with covered balconies surrounding the upper level for viewing play.

There are various private clubs maintaining major tennis facilities in the area: The Huntsville Tennis Center, The Huntsville Racket Club, and The Huntsville Athletic Club.

ee. Shooting Sports and Archery

Skeet shooting is available at Big Sky Skeet & Trap Club located across the Tennessee River in Lacey's Spring. The club has four skeet and two trap fields, offers memberships for those who want to join and has competitions sanctioned by the National Skeet Shooting Association, including the annual "Rocket City Open" that is among the Top 100 shoots in the country.

The Madison County Shooting Sports Association supervises and maintains a lighted skeet and trap range at Sharon Johnston Park, a multi-use facility owned by Madison County and located in New Market. The range has lighted fields as well as a covered pistol-rifle range, offers lessons with instructors certified by the National Rifle Association and often hosts events in conjunction with other organizations such as the Paralyzed Veterans of America.

Other public shooting ranges include the ones at Swan Creek Wildlife Management Area in Tanner (north of Decatur) and at Skyline-Martin Wildlife Management Area north of Scottsboro. A \$16 annual permit is required and the ranges are owned and maintained by the Department of Conservation and Natural Resources.

Blue & Gray Rifle and Pistol Club is located near Guntersville Dam and offers memberships. Currently it has about 250 members. It is affiliated with the National Rifle Association and the U.S. Army Director of Civilian Marksmanship Program. It

has a 200-yard big bore range, 100-yard small bore range and 50-yard covered range for pistols.

Archery shooters can test their skills at the Silver Arrow Archery Range in New Hope, which has lifesize 3D targets set up at various distances in woodland and field settings.

ff. Martial Arts

A variety of martial arts are offered in the Huntsville area through approximately 14 studios or academies. Available classes range from karate, to taekwondo to the newly-popular kickboxing. Many studios are members of the Martial Arts Industry Association.

gg. Radio Controlled Flying

The Rocket City Radio Controllers (www.rocketcityrc.com) is an organization dedicated to the flying of radio controlled airplanes. Their activities take place in the City of Huntsville at John Hunt Park. Facilities include: an AMA chartered flying field, 600x50 Ft. Paved Runway, Large Grass Landing Area, Recovery Vehicle, 20x160 Ft. Covered Pilot Shed with Electrical Outlets, Plenty of Parking, Safety Fence, Air conditioned Clubhouse, Covered Picnic Area, Covered Spectator Seating with Safety Screens, and Technical Instruction & Assistance.

hh. Hang Gliding

Hang gliding is available at the Rocket City Airports Hang Gliding Flight Park in nearby Gurley, Alabama. There are flight demonstrations when conditions permit, and lessons Friday and Saturday from 8 a.m. to noon (256-880-8512).

ii. Soccer

Competitive soccer is popular in the Huntsville area. In addition to youth leagues, adult soccer is available. The City of Huntsville Parks and Recreation Services offers competitive soccer in the City of Huntsville, as does the Huntsville Adult Soccer League (www.hasl.org/). The City of Huntsville has state-of-the art soccer facilities at both Merrimack Park and John Hunt Park. These facilities have hosted State Championships in the past. The soccer complex at Merrimack Park is currently scheduled to include five additional lighted soccer fields, concession stand/meeting room facility, additional restrooms and pavilions. John Hunt Park has 10 soccer fields.

jj. Yoga/Pilates

There are several private studios in the area offering classes.

3. Youth Sports

a. Municipal Sponsored Sports

Organized recreational sports sponsored by local government is available through recreational programs managed in the City of Huntsville by the Huntsville Parks and Recreation Services. These sports programs also serve challenged youth.

The City of Huntsville Parks and Recreation Services provides the following activities for its youth (ages 5-18):

- Football
- Basketball
- Baseball/Softball
- Volleyball
- Recreational Soccer
- Club Soccer (competitive level)

In addition to these organized sports, previously mentioned sports of hockey and figure skating are popular. Other youth recreational activities are also offered:

b. Soccer

Soccer is wildly popular in the State of Alabama. Locally, there are clubs that offer both recreational and competitive soccer through the American Youth Soccer Organization and the Alabama Soccer Association. A good source for information on soccer in North Alabama is the North Alabama Soccer League (www.nasl.com/). Soccer camps are provided for children as well.

c. Basketball

In addition to the organized city and county league play for youth, the YMCA of Huntsville & North Alabama offers basketball activities. Area churches also offer “Upward Basketball” programs for boys in grades 1-6.

d. Baseball Camps and Training Centers

The Huntsville Stars (local AA Baseball team affiliated with the Milwaukee Brewers) provides baseball camps to the area’s youth. The camps are popular, and are often filled quickly.

Additionally, several former professional baseball players provide coaching at their own facilities in the Huntsville-Madison County area. These facilities are the Todd Burns School of Baseball, Diamond Play Training Center, and the Charlie Rogers Training Center.

e. Extreme Skating

The Huntsville area is home of Insanity Skate Park (www.insanityskate.com/), which offers extreme skating to the region's youth. It is the only facility of its kind in the southeast, and is ESPN ready. Insanity Skate Park is a 30,000 sq. ft. world-class extreme skatepark for skateboarding and aggressive inline skating.

f. Skateboarding

The City of Huntsville has a public skateboard park located in downtown Huntsville. It is open to the public seven days a week.

g. Rollerskating

The Huntsville area has several rollerskating rinks to serve the youth.

h. Wrestling

The Huntsville area has a strong youth wrestling program. The Southern Youth Wrestling Organization (SYWO) has several area clubs that travel to competitive venues in the region. The SWYO offers a developmental/competitive program that includes wrestlers in a broad range of skill levels.

i. Competitive Swimming

Competitive swimming is offered in the City of Huntsville through the Huntsville Swim Association (www.swimhsa.org/).

j. Dance

There are numerous studios in the area offering dance instruction, ranging from ballet to modern dance. Youth taking dance lessons can also enter the competitive arena.

k. Gymnastics

There are various private facilities that offer gymnastics training to children. Nine centers in the area provide this training to youth of all ages.

1. Cheerleading and Dance Team

Several private highly competitive All-Star Cheerleading and Dance Team programs are available in Huntsville-Madison County for youth, aged 4 years old to 12th grade.

V. Community Festivals and Events

The City of Huntsville provides many festivals and annual events that have proven popular with both residents and tourists. This section focuses on the major festivals and special event that are held every year:

A. Panoply of the Arts (www.panoply.org/)

The Panoply Arts Festival celebrates the arts with a wide array of performances, exhibits, demonstrations, and hands-on activities. It is held annually the last weekend of April in Big Spring Park. Over 70,000 people attended the 24th anniversary Panoply festival in 2005.

The event features hands-on art activities for children and adults as well as musical, dance and drama stage performances from local or traveling performers. Patrons can shop in the Boeing Art Marketplace to grow or even begin their art collection. There is also an array of artists demonstrating their skills in the park, strolling performers and much, much more.

B. Big Spring Jam (www.bigspringjam.org/)

Big Spring Jam is a week-end music festival held during the end of September in downtown Huntsville. Performances are held on multiple stages, each with its own style of music. Attendees can choose from rock, gospel, oldies, zydeco, and more. There is a children's stage as well. Performers are popular recording artists or regional musicians.

C. Whistle Stop Festival

The Whistle Stop Festival is held every May at the Historic Huntsville Depot in downtown Huntsville. The festival includes a sanctioned bar-be-cue cook-off competition as well as musical entertainment from local artists.

D. Concerts in the Park

Each Monday night from June through Labor Day, audiences can enjoy an eclectic blend of tunes, from jazz to rock-n-roll, underneath the stars in Big Spring Park, located in downtown Huntsville. Those who attend are encouraged to bring a picnic and enjoy this casual evening of entertainment. Refreshments are also available at the park.

The admission-free summer concerts take place at the south end of the park near the eternal flame. Concert time is 6:30 p.m. until 8:00 p.m., except at the grand finale Labor Day Concert which will end at 9:00 p.m.

The Monday night of Armed Forces Week (July) kicks off with a military band performing patriotic tunes. This is one of the most popular concerts of the summer with more than 6000 people attending to pay tribute and salute our military forces.

E. Veterans Day Parade

The City of Huntsville is the site of the annual Veteran's Day parade – the only Veteran's Day parade held in Northern Alabama. The event is co-sponsored by the North Alabama Veterans and Fraternal Council, City of Huntsville, a local industry partner, and a local TV station. It is the only Veterans Day parade in Northern Alabama. The 2003 crowd is believed to have exceeded 20,000 spectators.

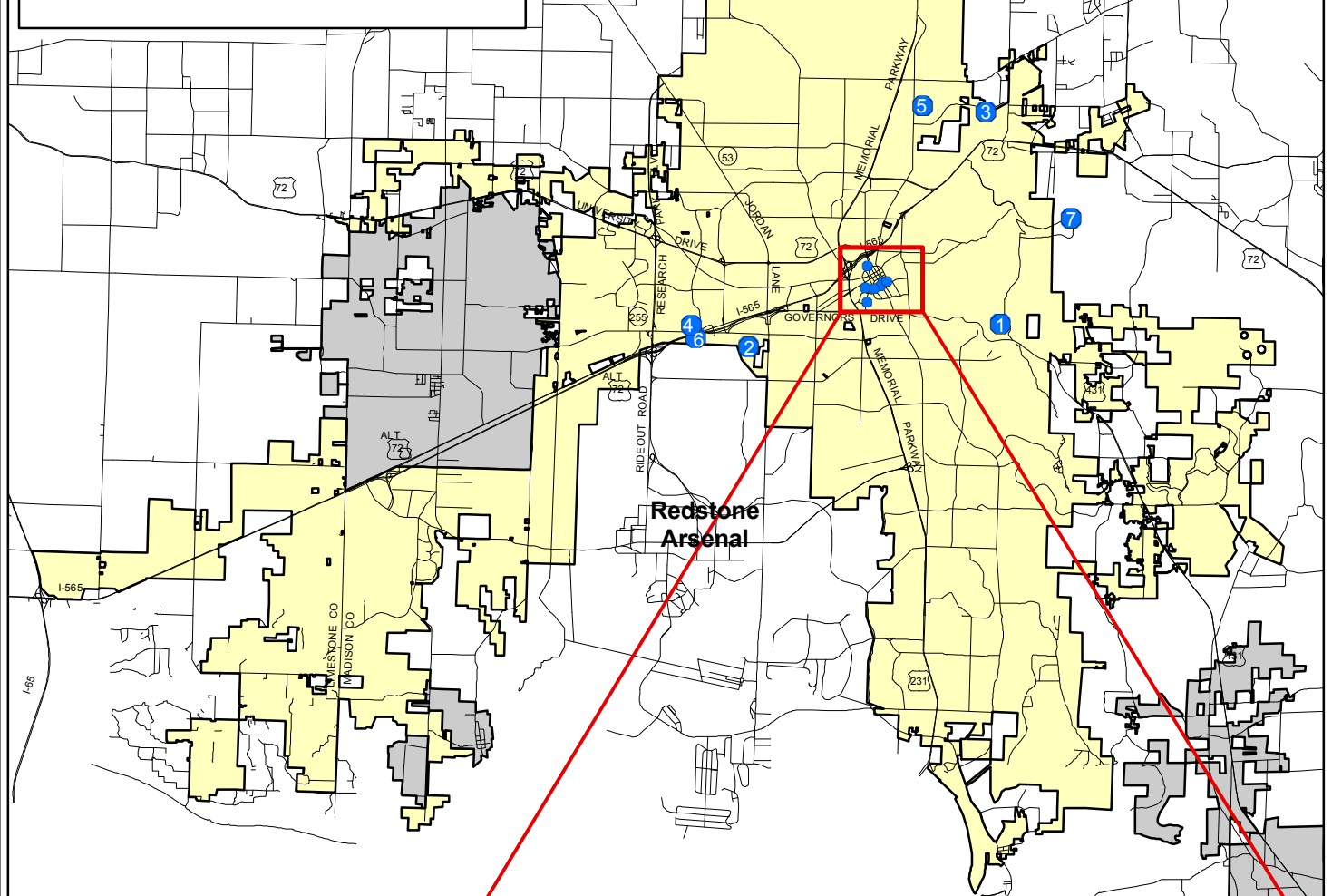
F. Other Events

Other special events held in the Huntsville area are:

- Spring Festival of Flowers – April
- Pilgrimage/Cemetery Stroll – First week-end in May
- Blues Festival – Late May, John Hunt Park
- Historic District Strolls – Summer Saturday mornings, Downtown Huntsville
- Black Arts Festival – late June week-end, WEUP Radio
- City Fireworks Festival – July 4th, Huntsville at Joe Davis Stadium
- Old Fashioned Trade Day – Saturday after Labor Day, Downtown
- Sorghum Festival – September week-end at Burritt Museum
- Indian Festival – October week-end, Burritt Museum
- Galaxy of Lights – Thanksgiving – December 31, Botanical Gardens
- Christmas Parade – Early December, Downtown Huntsville
- Rocket City Marathon – Early December, Downtown Huntsville
- Parade of Lights – December week-end, Ditto Landing
- Historic Homes Tour – Second Saturday in December, Twickenham Historic District

The Huntsville community offers many cultural and recreational activities and community events that contribute to the high quality of life in the area. These activities and events are fully supported by the community through participation and financial support. The contributions made by Redstone Arsenal and NASA employees, as well as defense contractors have had a positive direct impact on the community. The cohesiveness of the community and the various activities and amenities available make the City of Huntsville a remarkable place to live.

Map 7.1 Area Museums and Points of Cultural and Educational Interest

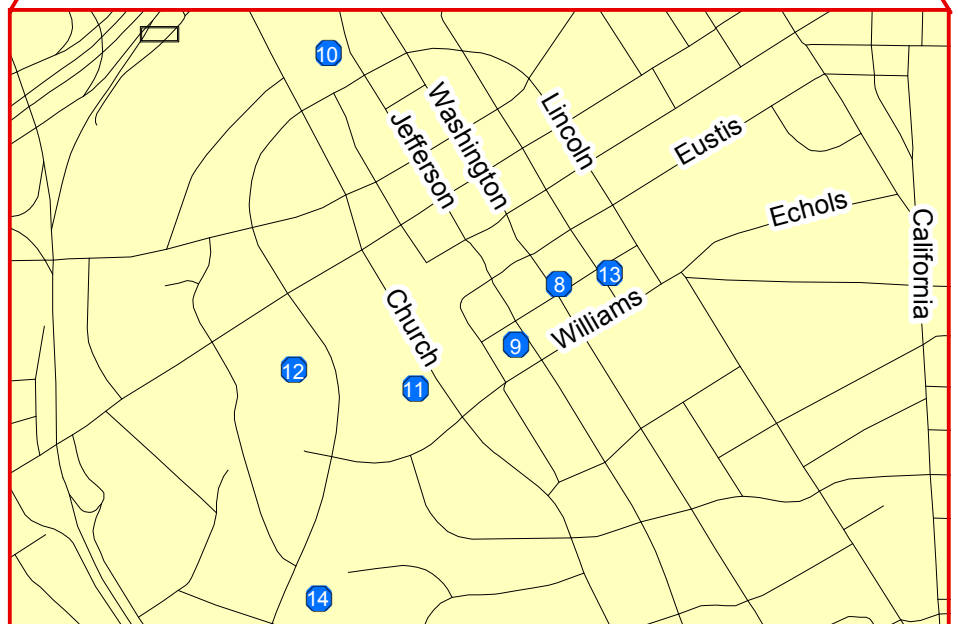


● Points of Interest

1. Burritt Museum and Park
2. Huntsville/Madison County Botanical Gardens
3. North Alabama Railroad Museum and Historic Chase Depot
4. Sci-Quest, North Alabama Science Center
5. State Black Archives, Research Center, and Museum
6. U.S. Space and Rocket Center
7. Von Braun Astronomical Society Observatory and Planetarium

Downtown



8. Alabama Constitution Village
9. Early Works Children's Museum
10. Huntsville Depot Museum and Depot Trolley
11. Huntsville Museum of Art
12. Von Braun Center
13. Weeden House Museum
14. Huntsville-Madison County Public Library



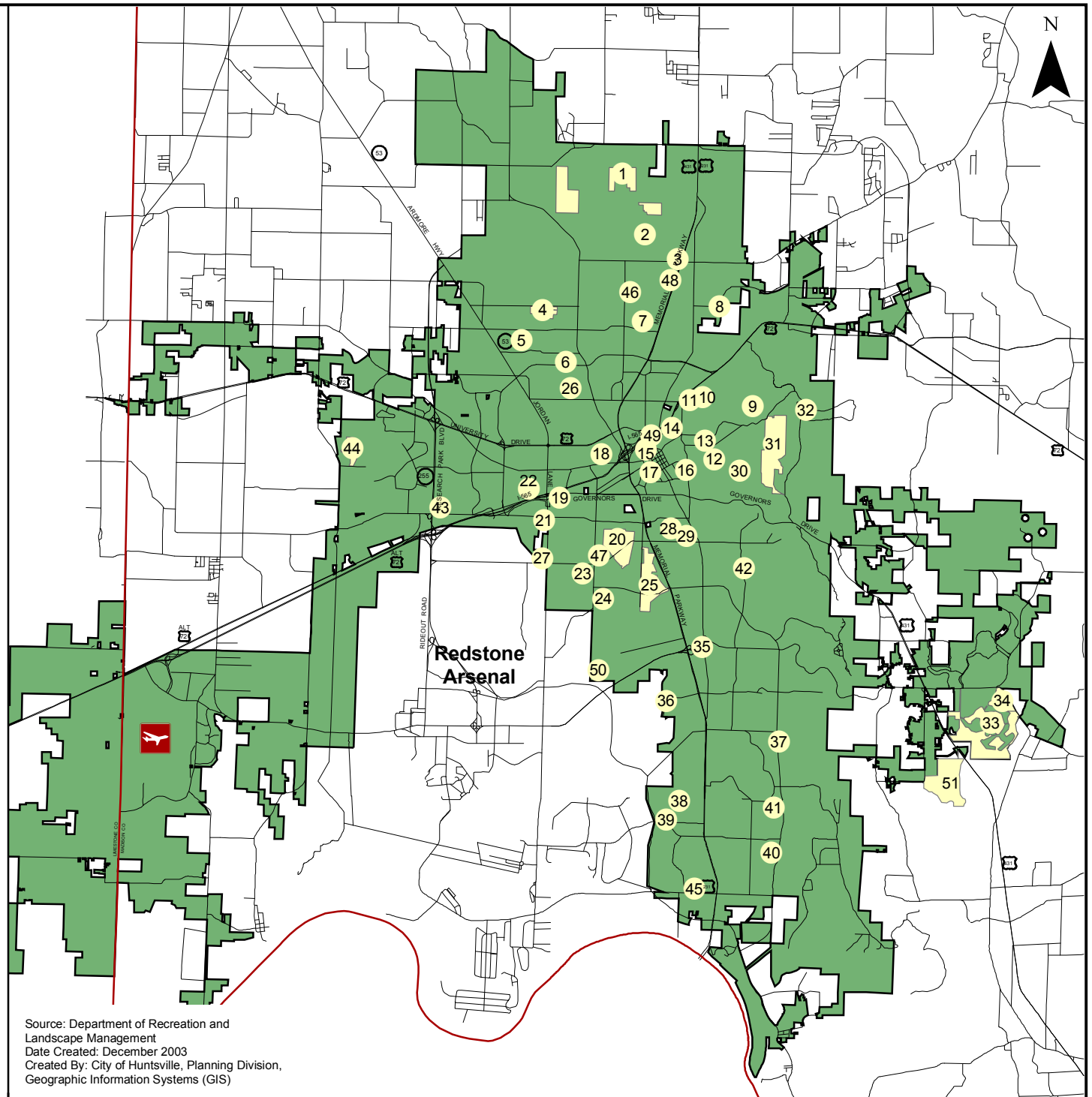
Created: December 2003

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Map 7.2 City of Huntsville Parks

 City Parks
 Huntsville City Limits

ID	Name	Acreage
1.	Wade Mtn. Preserve	559.00
2.	Windsor Manor Park	5.04
3.	Maplewood Park	10.00
4.	Stoner Park	69.10
5.	Mastin Lake Park	31.60
6.	Scenic View Park	5.10
7.	Lakewood Park	13.80
8.	Edmonton Heights Park	8.77
9.	Oak Park	10.00
10.	Philpot Park	3.99
11.	Optimist Park	8.55
12.	Maple Hill Park	8.64
13.	Wellman Park	0.70
14.	Beirne Avenue Park	1.56
15.	Gateway Park	5.50
16.	California Street Park	2.99
17.	Big Spring Park	15.25
18.	Hillendale Park	0.81
19.	Pine Park	2.79
20.	Brahan Spring Park	174.88
21.	Kiwanis Soccer Park	3.00
22.	University Park	10.54
23.	Archer Park	3.12
24.	Chelsea Park	3.40
25.	John Hunt Park	432.00
26.	Oakmont Park	3.72
27.	Metro Softball Complex	88.45
28.	Mayfair Park	9.20
29.	Hastings Park	0.37
30.	Hermitage Park	14.37
31.	Monte Sano Preserve	760.00
32.	Cold Springs Park	30.00
33.	J.D. and Annie Hays Nature Preserve	538.00
34.	Cove Park	100.00
35.	Fern Bell Recreation Center	20.81
36.	Kent Robertson Park	4.98
37.	Willow Park	7.74
38.	Buchanan Park	4.00
39.	Bell Mtn. Park	29.78
40.	McGucken Park	39.78
41.	Ken Johnston Park	11.60
42.	GreenWycche Village Park	0.81
43.	Sherwood Park	5.14
44.	Creekwood Park	68.43
45.	Sandhurst Park	15.66
46.	Dr. Richards Showers, Sr. Park	16.95
47.	Merrimack Soccer Complex	33.00
48.	Meadow Hill Park	1.50
49.	Skate Park	0.66
50.	Ogden Martin	2.50
51.	GoldSmith-Schiffman Wildlife Sanctuary	300.00

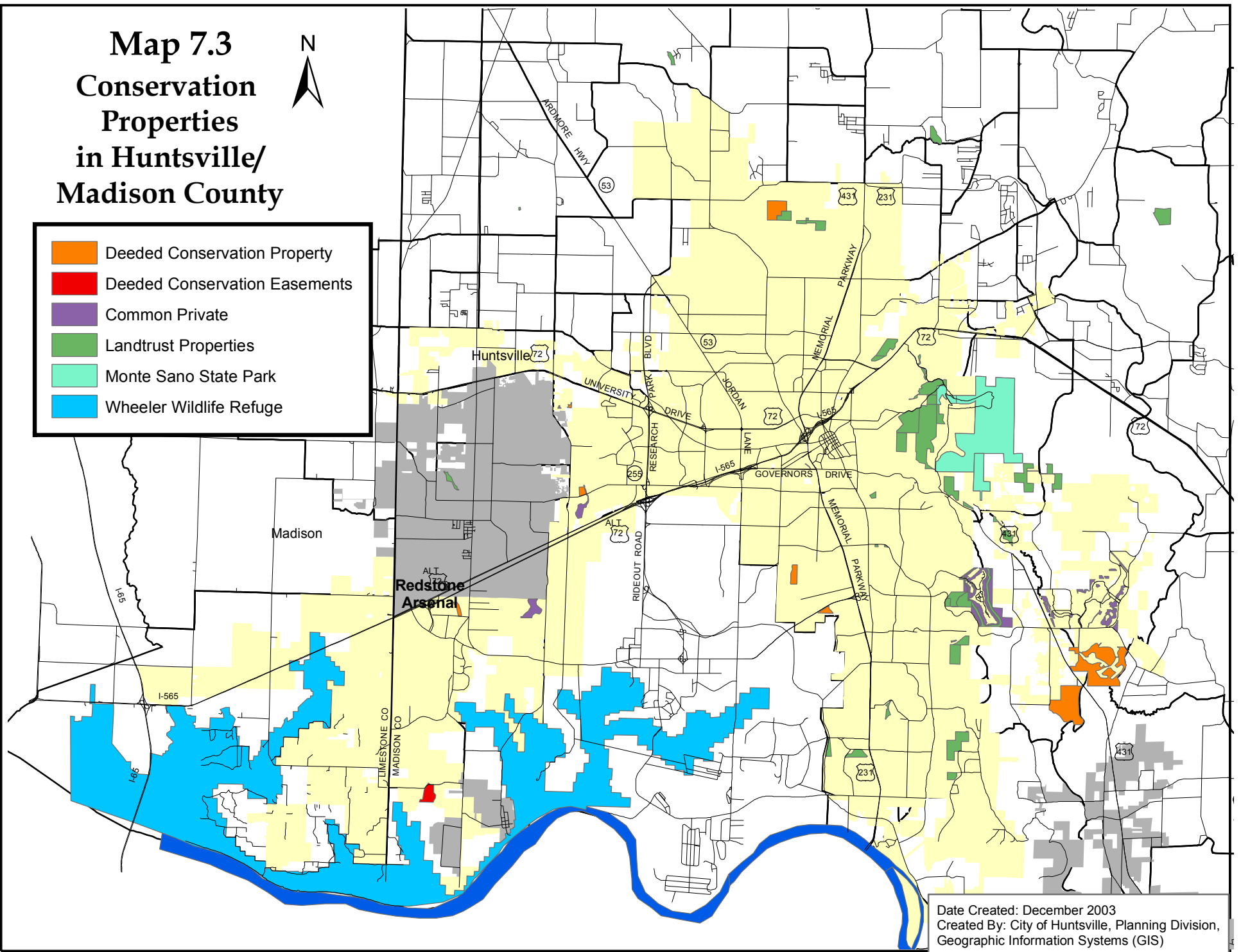


Source: Department of Recreation and
Landscape Management
Date Created: December 2003
Created By: City of Huntsville, Planning Division,
Geographic Information Systems (GIS)

Map 7.3 Conservation Properties in Huntsville/ Madison County



- Deeded Conservation Property
- Deeded Conservation Easements
- Common Private
- Landtrust Properties
- Monte Sano State Park
- Wheeler Wildlife Refuge



Date Created: December 2003
Created By: City of Huntsville, Planning Division,
Geographic Information Systems (GIS)

**CITY OF HUNTSVILLE
FEDERAL PRESENCE/MILITARY SUPPORT
QUICK FACTS**

Redstone Arsenal and the City of Huntsville have developed a special partnership and support for each other throughout the years.

Several local military organizations provide support to active duty and retired military servants.

The City of Huntsville has expressed physical and financial support of retaining Redstone Arsenal.

The local community and other entities have a close-knit relationship with Redstone Arsenal and provide services and support to the installation and its employees.

The technical community supports DoD initiatives, and has organized to provide conferences and professional/educational activities to its member organizations.

The Huntsville area received approximately 1,700 people into its communities in BRAC 1995. To assist with this relocation, the City of Huntsville government staffed a centralized one-stop relocation center to provide essential services to newcomers.

The local defense contractor base is strong. Many defense companies are concentrated in Huntsville's Cummings Research Park, the 2nd largest research park in the U.S, and 5 minutes away from Redstone Arsenal.

Local government and quasi-government entities provided shared services and support directly to Redstone Arsenal. This includes the acceptance of certain waste products and the provision of garbage services, energy resources via the Solid Waste Disposal Authority, a tremendous amount of road improvements, electrical service, natural gas and water, cable and internet services, emergency medical services, cross training for Redstone's emergency response personnel, and mutual aid in instances of a community or an on-post emergency.

Large conferences and training directly supporting Redstone is held in Huntsville. These conferences draw a large number of industries and military personnel.

Other federal agencies that provide support to Redstone Arsenal are located in Huntsville. Some of these agencies operate independently of the U.S. Army mission.

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SECTION 8

CITY OF HUNTSVILLE

FEDERAL PRESENCE/MILITARY SUPPORT

I. General Overview

The U.S. Army at Redstone Arsenal's long-standing relationship with community partners has fostered a mutual interdependence. The local community has proven through past and current commitments its support to Redstone Arsenal, the Army's mission, and the families residing within the region's boundaries. Redstone Arsenal, itself has supported community initiatives to further its purpose and fulfill its role in the community in which it resides.

This Section will focus on the support structure, unique to the City of Huntsville, which has fostered the close-knit relationship between Redstone Arsenal and community partners.

II. Regional Support Structure

A. Retirement Demographics

Approximately 150,000 military retirees (including 42 retired flag officers) and their families, call the Tennessee Valley home. Due to the high quality of life available in the area, a large number of employees at Redstone Arsenal choose to remain in or return to the area upon retirement.

B. Soldier Support

The City of Huntsville has a number of military-related organizations available that provide support to the area's soldiers, military retirees, and their families.

1. Association of the United States Army - Redstone Huntsville Chapter (AUSA)
(www.ausaredstone.org)

The Association of the United States Army - Redstone Chapter, is one of the nation's largest and most active chapters, having over 2,000 members. The Chapter, which represents the Army and soldiers in the Northern Alabama-Southern Tennessee area, has many programs to serve the soldiers at Redstone. Many of the following programs are unique to the chapter:

- Redstone Arsenal Soldier of the Quarter/Year and NCO of the Quarter/Year
- Alabama USAR/NG Soldier and NCO of the Year
- Drill Sergeant of the Year Luncheon
- Soldiers' Breakfast
- Junior and Senior ROTC Leadership Awards
- Military Dependent Children Recognition (Scholarship)
- Advanced Planning Briefing for Industry (APBI)
- Army Birthday/Flag Day/Installation of Chapter Officers Dinner
- Tactical Missile Symposium
- Golf Tournaments
- National Annual Meeting

- Chapter Newsletter
- Resolutions Development
- DA Civilian of the Year Award Dinner
- Soldiers Sporting Event Buyout Nights
- Christmas Corporate Appreciation Reception
- Chapter Coin Program
- All Expense Paid Support for Soldier of the Quarter/Year and NCO of the Quarter/Year Attendance at the Annual Meeting.
- Chapter Hospitality Suite
- Chapter Purchases RSA Running Team Suits and Chapter Shirts for Soldiers
- Chapter acts as "Unofficial" Host for Huntsville Mayor Loretta Spencer
- Spends about \$30,000 on Soldier Activities
- Assisted in building three houses for General Officers at RSA, all at no expense to the Army

2. Army Aviation Association of America (AAAA), (www.tennvalleyquad-a.org/) - Tennessee Valley Chapter

The Army Aviation Association of America (AAAA) - Tennessee Valley Chapter is one of the nation's largest and most active chapter, with 1,228 members. The chapter represents members in the Tennessee Valley Region whose past or current duties affiliate them with the field of U.S. Army Aviation. Many local members routinely assist the National AAAA office with strategic planning and convention activities. The Tennessee Valley Chapter has provided for the following activities:

- Organizes and hosts the annual National AAAA Symposium for Product Support (the Joseph Cribbins Support Symposium) held in Huntsville each February. This conference is held in conjunction with the Worldwide Aviation Logistics Conference. Attendance comes from all over the country.
- Conducts joint activities with the AUSA, American Helicopter Society (AHS), and the National Defense Industrial Association (NDIA)
- Chapter Golf Tournament
- Joint AAAA/AHS/Society of Logistics Engineers (SOLE)Luncheon
- Teamed with AAAA National and corporate and individual sponsors to raise money to purchase overseas phone cards to soldiers fighting in Iraq.
- Chartered Tours to Regional Sites
- White Water Rafting Trip
- Spring and Fall Bass Fishing Tournaments
- Christmas Social
- Annual Paid AAAA membership and \$50 gift certificate to Redstone Arsenal Soldier of the Month, Soldier of the Year, NCO of the Month, NCO of the Year
- Order of St. Michael Award to those individuals contributing significantly to the promotion of Army Aviation
- Manage Selection Process for Military and Industry Aviation Logistics Support Awards Presented Annually at the Symposium for Product Support
- Scholarship Program
- Chapter Newsletter
- Hospitality suite and Chapter Reception at AAAA National Convention

- Provides Financial Support to Soldier/NCO of the Year Luncheon

3. North Alabama Veterans and Fraternal Coalition

The North Alabama Veterans and Fraternal Coalition is a non-profit corporation under the laws of the State of Alabama. The thirty plus member organizations include American Legion Posts, Veterans of Foreign Wars, all services support organizations such as the AUSA, other associations such as the Military Order of the Purple Heart and a wide range of fraternal organizations such as the Knights of Columbus and Shrine Temples. Its charter is to support currently serving servicemen and women, our veterans, and promoting our future servicemen and women through support of the Reserve Officer Training Corps. Activities sponsored by the Coalition include:

- Annual Veterans Day parade co-sponsored by the City of Huntsville, local industry partner, and a local TV station. It is the only Veterans Day parade in Northern Alabama. The 2003 crowd is believed to have exceeded 20,000 spectators.
- As part of Veterans Day Activities, co-hosts the AUSA annual dinner recognizing veterans for induction to the Madison County Hall of Heroes, the Redstone Arsenal Soldier and Non-Commissioned Officer of the year. This past year's event included a special recognition to over ten families of Alabama servicemen killed in the Philippines, Afghanistan and the Iraqi theater. Presented a Gold Star Service Banner recognizing the sacrifices made by these families to the protection of our nation and the war on terrorism at a City of Madison sponsored breakfast ceremony prior to the parade.
- Sponsors numerous individual Memorial Day ceremonies in the cities of Huntsville and Madison. Coalition members decorate all veterans' graves with American flags and conducts supporting memorial services.
- Since the first anniversary of 9-11 the Coalition has sponsored a community wide memorial service for the remembrance of those who lost their lives at this horrible historic event. Additionally, Blue Star Service Banners are presented to families who sons or daughters are currently serving on active duty. Recognition is also given to our police and firefighters that constitute our first line of homeland defense.
- Provided critical support to local companies that collected Christmas sundry packs for soldiers serving in Iraq. Over 22 pallet loads of shoe-box size packages, many containing personal Christmas Cards from area students, were assembled, reconfigured for air movement and delivered to Ft Campbell, Kentucky where they were shipped to the 101st Airborne (Air Assault) Division. Funds to ship these Soldier CARE packages by tractor-trailer for aerial shipment to the theater of operations were generated through locally generated donations.
- During July 2003, the Coalition rented the local AA baseball stadium for a free ball game and recognition of families who lost service members in the War on Terrorism. Families were brought to Huntsville and stayed at Coalition expense, each family having a Non-Commissioned Officer from the service of the family member as escorts. The Huntsville Police Department escorted the families from the hotel to the stadium. As they

turned into the stadium parking lot dozens of Huntsville Police Department patrol cars were in line, flashing lights burning and with police officers standing in front at attention. At the entrance to the stadium the families were met by military escorts who accompanied them through a pathway lined with the colors of coalition members onto the field. Prior to the start of the game the families were each recognized and occupied a place of honor at the game.

4. Madison County Veteran's Memorial Foundation

The Madison County Veteran's Memorial Foundation is a group of local military and community leaders that seek to develop, fund, facilitate, build, and maintain a suitable memorial to honor the veterans who have served the United States by giving their time and, some ultimately, their lives in military service of their country. This Memorial will serve to:

- Inspire Visitors
- Provide an Incentive to Serve
- Educate Visitors, Especially the Young
- Recognize 20th Century Veterans of Madison County
- Recognize the Madison County Recipients of the Congressional Medal of Honor

A site for the memorial has been selected in the City of Huntsville.

C. Technical Support

Technical resources are available to Redstone Arsenal, the defense industry, and other technological industry sectors through the Huntsville Area Technical and Professional Societies (HATS) (www.hats.org/). Founded in 1969, the organization acts as an umbrella agency to 70 different organizations representing well over 10,000 individuals. The purpose of HATS is to coordinate the professional, educational, and civic activities of its member organizations and to promote common goals. There are only two other organizations like it in the United States. In addition to its other activities, HATS organizes an annual conference with four rotating symposium tracts covering the areas of technology, defense, space, education, business, and small business.

HATS supports its member organizations through:

- Information Dissemination
- Website Announcements and Hosting for Member Organizations
- Information Request Clearinghouse for Inquiries about Technical Professional Organizations and Activities
- Bringing Technical Professional Concerns to the Attention of Community and Business Leaders
- Incubating Business-Technical Professional Liaisons
- Use of Central Office Facility by Members for Meetings, Programs, and Deliveries
- Discounts on Printing, Website Design, Mail Preparation, and Mailing Costs
- Complimentary Management and Leadership Development Seminars
- Participation in TEAMS Week
- Listing in Annual H.A.T.S. Membership Directory
- Professional-of-the-Year recognitions
- Promotion and Sponsorship of Member Organizations' Goals and Activities

- Coordination and Storage of Joint Communications and Public Relations Materials for all Members
- Endorsement and Publication of Member Goals and Activities
- Interface with Huntsville-Madison County Chamber of Commerce
- Coordinated participation in area science and engineering events

Members of HATS comprising the defense and aerospace sector total nearly 20. Member societies representing this sector are:

- Armed Forces Communications & Electronics Association (AFCEA)
- Army Helicopter Society (AHS)
- Association for Unmanned Vehicle Systems International (AUVSI)
- International Test & Evaluation Association (ITEA)
- Project Management Institute - North Alabama Chapter (PMI)
- Redstone Arsenal Huntsville Military Operations Research Section (RAHMORS)
- Society of Logistics Engineers (SOLE)
- Technology Transfer Society (TTS)
- University of Tennessee Space Institute (UTSI)
- U.S. Army Space & Missile Defense Association (USASMDA)
- American Aviation Association of America (AAAA)
- Association of Proposal Management Professionals
- American Society for Industrial Security
- Association of the United States Army (AUSA)
- Huntsville Aerospace Marketing Association (HAMA)
- National Contract Management Association (NCMA)
- National Defense Industrial Association (NDIA)
- Space Power Institute (SPI)

In addition to support provided to the active duty and retired soldier and their families, and technical support provided through member organizations of HATS, the Huntsville community has come together to rally support for Redstone Arsenal's continued presence in North Alabama.

D. Community Support

1. BRAC 2005

The Tennessee Valley BRAC Committee was formed under the direction of the Huntsville-Madison County Chamber of Commerce to protect the future of Redstone Arsenal. The committee was also active during the 1995 BRAC review. Given the fact that Redstone Arsenal is responsible for almost 50% of the economy in the Huntsville community and, because of its economic impact, the elected officials representing the City of Huntsville worked hard and provided financial support to protect the presence of Redstone Arsenal in the community.

2. BRAC 1995 - St. Louis

BRAC 1995 resulted in the relocation of ATCOM and the Program Office for Aviation to Redstone Arsenal. This move significantly and positively impacted

the Tennessee Valley Region. Approximately 60% of civilian employees (1,700 people) moved from St. Louis to the greater Huntsville area. The percentage of employees that moved to the greater Huntsville area from St. Louis was the highest percentage in the history of BRAC.

Upon this relocation, the City of Huntsville, in conjunction with Madison County, provided assistance to Redstone's newest employees through the opening of a one-stop relocation or processing center. The center was centrally located at Parkway Place Mall, and remained open for 3 months. The center was staffed with city and county employees, and allowed newcomers to Huntsville and Madison County to enroll their children in public schools, register to vote, apply for utility and local phone services, apply for drivers' licenses and animal control licenses, and sign up for city-sponsored sports in one location. The one-stop processing center eased the stress of relocating to an unfamiliar city, and provided essential municipal and county services to transitioning employees.

Past support to retain Redstone Arsenal during the 1995 BRAC Round, and to provide assistance to transitioning employees was widely embraced by City municipal leaders.

E. Defense Contractor Base

Huntsville's defense sector grew up with Redstone Arsenal as the installation's missions evolved. The Huntsville community possesses a tremendous aggregation of companies and military facilities that are able to meet the increasingly sophisticated and complex demands of today's military forces. Many of the scientific and engineering resources that have developed in Huntsville cannot be easily or readily replicated.

According to a recent study conducted concerning the defense sector in the Tennessee Valley Region, 61% of major sub-contractors or suppliers to local DoD prime contractors are located in the greater Huntsville area. These subcontractors primarily supply parts and accessories or technical services to prime contractors located in the Huntsville metropolitan area. Local defense contractors currently employ 12,388 persons on defense contracts and sub-contracts. An Alabama Aerospace Industry Survey recently conducted identified 96 Huntsville area firms that had defense contracts or sub-contracts during 2002. The seven largest of the 96 firms employed 51% of all private defense workers. Even though this is the case, 65 of the 96 firms surveyed had fewer than 100 employees, and the average firm had 129 workers.

The defense contracting base in the Huntsville community is quite extensive, well entrenched, and in tune with the current and future needs of Redstone.

A large number of these defense contractors are strategically located within five minutes of Redstone Arsenal, at Cummings Research Park in the City of Huntsville.

F. Cummings Research Park

http://www.huntsvillealabamausa.com/new_exp/new_crp_toc.html

Cummings Research Park has the distinction of being the 2nd largest research park in the United States and the 4th largest in the world. Its tenants include more than 220 companies representing 40 different technology fields, 17 of the Fortune 500 companies, local and high-tech enterprises, U.S. Space Defense Agencies, a technology business

incubator, technology-oriented high schools, and competitive higher education institutions. Cummings Research Park is actively marketing sites for future tenants. Space is available for defense contractors to grow or to locate to the area. This growth may be required if Redstone Arsenal's mission expands in the Tennessee Valley Region. Additionally, O&S holdings has announced a major development within the park – The World Famous Bridge Street – which will provide core amenities to a target market around Cummings Research Park. The development will include upscale retail, entertainment, residential, hotel and conference center amenities, and over 400,000 square feet of Class –A Office Space for future tenants and is currently under construction.

III. Shared Services

There are many mutually shared services between the Huntsville area community and Redstone Arsenal. Most of these were addressed earlier in this report, but are highlighted again.

A. Solid Waste Disposal Authority

The Solid Waste Disposal Authority (SWDA) was formed by the City of Huntsville in 1985, as a non-profit, public corporation whose purpose was to finance, construct, and operate the waste disposal facilities and programs for the community. The SWDA elected to implement an Integrated Waste Management System, which includes waste reduction/recycling, waste-to-energy and landfilling. In 1988, construction began on the Huntsville Waste-to-Energy facility, and combustor operations began in 1990.

The Huntsville Waste-to-Energy facility meets at least three key objectives for the community:

- The plant burns 600 tones of municipal solid waste per day, significantly reducing the volume of garbage to be landfilled
- It supplies energy in the form of steam to the nearby Redstone Arsenal, eliminating the Arsenal's dependence on its older, less efficient steam facility
- The plant burns sewage sludge from Huntsville's waste water treatment plant as fuel, providing a practical means of sludge disposal

B. Roads

Tremendous investments have been made in the past by federal, state, and local officials to insure roads leading onto post at Redstone Arsenal, and that roads within the Arsenal boundaries are safe and meet the mobility needs of Arsenal commuters. Approximately 31,000 persons drive on post every day.

Joint federal, state, and local commitments have funded road improvements in the City of Huntsville in excess of \$711 million from 1990 to the present. Present funding commitments for municipal road improvements during fiscal years 2006-2010 total over \$446.5 million. Of this amount, approximately \$211 million has been committed for funding road improvements either on post at Redstone Arsenal or on corridors providing direct access to Arsenal Gates. (Refer to **Section 3: City of Huntsville Infrastructure and Environment** for detailed locations and funding amounts.) These funding commitments are outlined in the federally required **Transportation Improvement Program**, adopted by the local Metropolitan Planning Organization.

Recently, federal and state monies paid over \$16.6 million road widening project within Redstone Arsenal boundaries on Martin Road from Redstone Arsenal's Gate 1 to Memorial Parkway and from Patton Road to the Main Gate East.

The Southern Bypass is scheduled for construction within Redstone Arsenal boundaries. The Southern Bypass has been identified as a high priority project on the National Highway System. It is a portion of the larger Memphis to Atlanta Highway project, that enters Madison County along I-565, follows the Southern Bypass across Redstone Arsenal, and then proceeds eastward out of Madison County. The Southern Bypass provides an alternate north-south major freeway that is needed to relieve congestion on the only existing major north-south route, US 231/Memorial Parkway. The project runs through portions of Redstone Arsenal. Extensive coordination has been done with the installation to ensure that the corridor's planned location is acceptable to Redstone officials. Three interchanges are planned for construction on Redstone Arsenal: at Research Park Boulevard, at Mills Road/Toftoy Thruway, and at Martin Road. An agreement has been executed with the City of Huntsville, State of Alabama, and Redstone Arsenal to affirm that the State of Alabama will provide maintain the corridor once constructed. Additionally, the agreement calls for the State to consult with the Army during its phased construction to minimize the impact of Arsenal traffic and the Army mission. Since road construction will raze the Arsenal's Visitors' Center, the City of Huntsville has agreed to replace the facility, presently located on Martin Road, with a comparable new one, at a location on Redstone Arsenal to be determined by the Army. The maximum cost to the City for a new Visitors' Center is set at \$1,000,000. Preliminary engineering designs have been completed for some portions of the road project. The total project cost is estimated at over \$532 million. The project should be completed by 2014.

Future road improvement projects have been identified in the Huntsville area Metropolitan Planning Organization's **Long Range Transportation Plan** to provide direct access to Redstone Arsenal. Plans are in place to widen Martin Road from Zierdt Road to Wall Triana Highway, and to widen Zierdt Road from I-565 to Beadle Lane. These improvements will alleviate congestion on these corridors, and will provide easier access to employees and visitors using Gate 7.

C. Electrical Service

The Tennessee Valley Authority is the supplier of electrical service on Redstone Arsenal. The Tennessee Valley Authority provides highly dependable service to its customers, and has a current reliability rating of 99.999%.

D. Natural Gas and Water Services

Natural gas is provided on post by Huntsville Utilities. While Huntsville Utilities provides water to Redstone Arsenal on an "as needed" basis, they do have the ability to provide full service to the installation.

E. Emergency Medical Services

Huntsville Emergency Medical Services, Inc. (HEMSI) is the primary provider of 24 hour emergency medical services at Redstone Arsenal. HEMSI has an ambulance on site at NASA's Marshall Space Flight Center.

F. Cross Training for Emergency Personnel

Emergency responders from the City of Huntsville, Huntsville International Airport Public Safety Department, and Redstone Arsenal participate in community and on-post emergency training exercises. Additionally, these emergency workers cross train with each other's response equipment, and attend training classes together. These jointly conducted preparedness activities ensure that the community's emergency responders, both on-post and off-post, are prepared to mobilize and provide public safety functions in a timely and efficient manner to the community as a whole and to residents and employees of Redstone Arsenal. These training and exercise activities also prepare responders to more effectively deliver mutual aid in times of community emergency. Refer to **Section 3: City of Huntsville Infrastructure and Environment** and **Section 6: City of Huntsville Public Safety and Emergency Response**, for more information.

G. Mutual Aid for Community/On-Post Emergencies

The City of Huntsville, Redstone Arsenal, and NASA's Marshall Space Flight Center complex have formally signed reciprocal agreements for the delivery of mutual aid. In case of an emergency on-post, immediate response is necessary to minimize loss of life and property. When community emergencies occur, emergency response cannot wait. With this in mind, mutual aid agreements among all entities were put into place. Local government will provide assistance and support upon request during times of emergency on-post to the Redstone Arsenal community. Likewise, the Redstone Arsenal community will provide assistance and support to area local governments upon request. Both the Huntsville Fire & Rescue Department and the Huntsville International Airport have separate mutual aid agreements with Redstone Arsenal. This is primarily for fire suppression support. By training together in community exercises and cross training with each other's equipment, each group is prepared to respond to the other's jurisdiction using their own resources, and as necessary the available resources available on hand from other jurisdictions. Refer to **Section 3: City of Huntsville Infrastructure and Environment** and **Section 6: Public Safety and Emergency Response**, for more information.

IV. Large Conferences/Training

The City of Huntsville, through the von Braun Center and other community facilities, has the resources available to host large conferences and training symposiums. Many defense-related training and conferences are held annually in Huntsville. According to the Huntsville-Madison County Convention and Visitors Bureau, government-related conferences had an economic impact of approximately \$30 million on the local community during last year alone.

The von Braun Center has accommodated both large and highly secure defense-related conferences. Upon request, the von Braun Center staff can provide a highly secure environment. The City of Huntsville Police Department has provided, and can continue to provide

supplemental security at these events, with manpower and K-9 reinforcements. Following is a sampling of conferences routinely held in the Huntsville area:

A. Army Test and Evaluation (T&E) Days

The Army T&E Days symposium has been held in Huntsville for well over seven years. The conference has about 420 attendees. The gathering of industry and government professionals, and representatives from academia showcases military-related services, hardware, and software.

B. Tactical Missiles Conference

The Tactical Missiles Conference is conducted in association with the Program Executive Office - Tactical Missiles and the Redstone-Huntsville Chapter of the Association of the U.S. Army. It is noted for being a high quality, high impact, and short duration conference that caters to the busy schedules of senior officers and industry executives. The one-day unclassified event provides key personnel in the tactical missile community the opportunity to hear the latest developments, and discuss current issues of interest.

C. Space and Missile Defense Conference and Exhibition

The Space and Missile Defense Conference and Exhibition promotes the exchange of ideas between government and industry researchers, developers, testers, and users to ensure that missile defense systems and components are feasible, affordable, and effective against national security threats. The conference has been held in Huntsville for over six years, and is sponsored by the:

- U.S. Army Space and Missile Defense Association (ASMDA)
- National Defense Industrial Association (NDIA), Tennessee Valley Chapter
- Air Defense Artillery Association

The key participant is the U.S Army Space and Missile Defense Command.

D. Technological Excellence in Aviation, Missiles and Space (TEAMS) Week

The Technological Excellence in Aviation, Missiles and Space (TEAMS) Week is sponsored by the Huntsville Association of Technical Societies (HATS). The conference addresses the future research and development technology environment and issues affecting various mission areas. Typically, 4,000 persons attend the event.

TEAMS is a venue that offers concurrent conferences, meal functions featuring top-notch speakers, and nightly socials housed in and around an exhibition arena that hosts the highest technical companies in the Tennessee Valley Region.

E. Joseph Cribbins Product Support Symposium

This symposium has been held for over 30 years, and is sponsored by the Army Aviation Association of America (AAAA) and the United States Army Aviation and Missile Command (AMCOM). The conference is geared toward members of industry and the aviation logistics and acquisition communities. The purpose of the symposium is the stimulate dialogue among industry executives, senior government officials, and military leaders concerning the future of aviation logistics.

V. Federal Government Presence

Many federal government agencies and entities have a presence in the Huntsville area, and several located off-post and independent of the U.S. Army's mission, serve Redstone Arsenal. An assessment and review of the extent of the federal presence in the area, beyond the U.S. Army's presence, is explored.

A. NASA's Marshall Space Flight Center (MSFC)

NASA's Marshall Space Flight Center (MSFC) is one of Redstone Arsenal's major tenants, occupying almost 1,800 acres of the installation. The Arsenal gives support to the Center through the provision of security, utilities, as well as infrastructure operations and maintenance. MSFC's Huntsville operation receives a major share in the NASA annual budget, and employs approximately 2,650 personnel.

The MSFC's key objectives are:

- Developing new generations of safe, reliable, reusable launch vehicles, and spacecraft powered by innovative, cutting-edge propulsion technologies
- Providing world-class propulsion systems for America's current space fleet
- Providing hardware and support for science operations aboard the International space Station
- Supporting NASA's science and research efforts, and delivering practical applications of NASA space research and technologies to Earth
- Educating America's youth about the wonders of space exploration and encouraging them to pursue rewarding careers that could help pioneer humanity's future in space
- Providing technical and organizational support across the field centers, test facilities, and laboratories that make up NASA.

B. Wheeler National Wildlife Refuge

The Wheeler National Wildlife Refuge is a 35,000 acre nature preserve and recreational facility, located in North Alabama. A portion of the refuge is located on Redstone Arsenal. The refuge was established in 1938 as a wintering area for ducks, geese, and other migratory birds. It is one of over 540 refuges in the National Wildlife Refuge System administered by the U.S. Fish and Wildlife Service.

C. Huntsville Weather Forecast Office - National Weather Service

The Huntsville Weather Forecast Office of the National Weather Service provides support to 11 counties in North Alabama and 3 counties in Southern Tennessee. In addition to forecasting duties and the issuing of special weather statements, the staff is involved in special projects, outreach activities, and storm surveys.

The Weather Service Forecast Office in Huntsville is co-located with the National Space Science and Technology Center, which enables it to participate in a range of meteorological and hydrometeorological research. The office is the only one in the United States to share space with a NASA research facility.

D. Tennessee Valley Authority

The Tennessee Valley Authority (TVA) is the distributor of dependable electrical power in the Tennessee Valley Region. Its latest notable achievement was its high reliability rating of 99.999%. TVA maintains two offices in the City of Huntsville that handle customer service and marketing as well as electric transmission operational functions.

E. U.S. Customs Service

The U.S. Customs Service operates out of the Huntsville International Airport, Foreign Trade Zone 83. The office provides for entry documentation, clearing of imported merchandise, examinations, payment of duties, and immigration and agriculture servicing.

F. Federal Bureau of Investigation

The Federal Bureau of Investigation has wide jurisdiction and responsibility for the investigation of federal criminal violations. The FBI serves the Huntsville area and other communities in north Alabama with two full squads of Special Agents in Huntsville who are dedicated to fulfilling the FBI's mission. With the Field Office located in Birmingham, the FBI's special attention to the northern part of the state is staffed in two Resident Agencies, one in Huntsville and the other in Florence.

The FBI is also instrumental in the work of the district's Joint Terrorism Task Force and the Anti-Terrorism Advisory Committee. The Huntsville annex to the district's Joint Terrorism Task Force also includes a full-time member from federal and local civilian and military investigative agencies. With its dedicated Huntsville squad, the FBI Resident Agency in Huntsville further maintains its responsibilities for national security by investigating terrorism and conducting counter intelligence.

Working closely with the United States Attorney's Office, governmental investigative services located in and around the Huntsville area, other federal law enforcement agencies, state agencies, and local law enforcement, the Federal Bureau of Investigation, through its Huntsville Resident Agency continues to manifest the highest levels of dedication and professionalism in its efforts to investigate federal criminal law violations as well as its commitment to combating terrorism and promoting national security.

G. U.S. Attorney's Office

For many years, the United States Attorney's Office for the Northern District of Alabama has been serving the people of Huntsville and the surrounding area. The already high level of service to the community was enhanced even more when, in 2002, the United States Attorney's Office expanded the size of its Huntsville Office by increasing to five the number of full-time Assistant United States Attorneys in the Huntsville Office. These dedicated attorneys serve the needs of the community by working closely and well with both federal and local law enforcement agencies in the area.

The United States Attorney's Office is responsible for overseeing the investigation and prosecution of all federal criminal violations, including violent crimes and firearms violations, narcotics violations, and a wide variety of so-called white collar crimes. These white collar investigations and prosecutions include cases related to corporate

fraud, financial institution fraud, health care fraud, and governmental grant and procurement fraud. In addition to some of the more commonly recognized federal law enforcement agencies, the United States Attorney's Office works with the Defense Criminal Investigative Services, the United States Army's Criminal Investigations Division, specifically the Fraud Division, and offices of the Inspectors General for NASA and the United States Air Force.

Additionally, the United States Attorney's Office also has concurrent jurisdiction over the prosecution of crimes occurring within the special jurisdiction of the United States, including Redstone Arsenal and the Tennessee Valley Authority. Many civilian matters occurring on Redstone Arsenal are specifically handled by a Special Assistant United States Attorney who works closely with and under the supervision of the Huntsville Office of the United States Attorney.

The United States Attorney's Office, along with the Federal Bureau of Investigation and other governmental agencies, plays a strong role in national security through its lead role in the Anti-Terrorism Advisory Committee and the Joint Terrorism Task Force for the Northern District of Alabama.

The United States Attorney's Office is also responsible for various civil matters, primarily those involving the United States as a party. To that end, the United States Attorney's Office also has a fully-staffed civil division which has consistently served its client, the United States, its departments and agencies, with the highest level of legal expertise.

H. Other Federal Agencies

The Huntsville area is further served by the location of dedicated officers and employees from other federal law enforcement and investigative agencies. All of these agencies, working closely with the United States Attorney's Office in Huntsville, see to it that the citizens of our community are protected through the vigorous investigation of all federal law violations. Agencies with a dedicated office, dedicated employees, and presence in the Huntsville area include the Drug Enforcement Administration, the Bureau of Alcohol, Tobacco, Firearms, and Explosives, the Internal Revenue Service, and the Secret Service.

Redstone Arsenal and its surrounding communities have developed a special partnership and support for each other throughout the years. Based upon past support and current commitments, local leaders are hopeful that this mutual interdependence will continue in the future.

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