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**PROPOSAL UNDER THE SMALL COMMUNITY
AIR SERVICE DEVELOPMENT PILOT
PROGRAM**

**COUNTY OF BAXTER, ARKANSAS
BAXTER COUNTY REGIONAL AIRPORT**

DOCKET OST-2002-11590 - 33

APRIL 17, 2002

April 17, 2002

Docket Operations and Media Management Division
SVC-124, Room PL-401
Department of Transportation
400 7th Street SW
Washington, DC 20590

Re: Proposal Under The Small Community Air Service Development Pilot Program
Docket: OST-2002-11590

Gentlemen:

Please accept the attached proposal from Baxter County Regional Airport seeking federal assistance through the Small Community Air Service Development Pilot Program. The funding request is for \$1.92 million dollars over a three-year period.

Baxter County Regional Airport is a county-owned and operated airport located in the rural Ozark mountains of Arkansas. Currently, the airport does not offer commuter service, and only has limited charter services available.

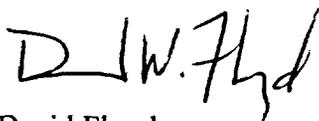
Commuter airline service into Baxter County Regional Airport was stopped September 30, 2001, due to lack of profitability. A new airport terminal had been built in 1993 through community donations. There is adequate runway to accommodate most commuter airlines, although adequate funding does not exist to subsidize and market a new commuter service into Baxter County.

The closest large airports are in Springfield, Missouri and Little Rock, Arkansas, but both are at least 2½ hours from Baxter County Regional Airport, and are only accessible through an inadequate highway system of mainly two-lane highways. Therefore, Baxter County Regional Airport easily meets the criteria to benefit from this grant.

This Small Community Airport grant request is made on behalf the county. The county will serve as the sponsoring government entity. The local Southshore Foundation, and Twin Lakes Economic Development Commission will serve as co-sponsors for the grant. The Airport Commission Chair will be responsible for and administer the grant.

This grant is the key to opening access to affordable and reliable air service in our nine-county area. We appreciate your consideration of this proposal and look forward to working with your office.

Yours very truly,



David Floyd
Chairman Baxter County Airport Commission

**PROPOSAL UNDER THE SMALL COMMUNITY
AIR SERVICE DEVELOPMENT PILOT
PROGRAM**

**COUNTY OF BAXTER, ARKANSAS
BAXTER COUNTY REGIONAL AIRPORT**

DOCKET OST-2002-11590

APRIL 17, 2002

**PROPOSAL UNDER THE SMALL COMMUNITY AIR SERVICE
DEVELOPMENT PILOT PROGRAM**

- **OBJECTIVE:** The primary objective of the Air Service Development Action Plan is to bring affordable and reliable commuter air service to Baxter County Regional Airport.

- **NEED:** Currently, the airport only has charter service available. The charter service is cost-prohibitive to most people. Baxter County Regional Airport lost its commuter service September 30, 2001, when Big Sky Airlines discontinued service, hence, the need for this grant.

Several recent events have highlighted the growing gap between Baxter County's air transport needs and the services available. Lone Star Airlines was financially weak, and failed in the Fall of 1998. Big Sky Airlines initiated services to Baxter County Regional Airport in November 1998. The business community has been increasingly aggressive in seeking better air services, while Baxter County residents continue to use competing airports such as Memphis, Little Rock, and Springfield. This discourages carriers from enhancing services at Baxter County Regional Airport and deprives the Airport of the community support it needs to grow (see Letters of Support, Appendix "A").

- **GRANT AMOUNT:** This grant requests \$1,920,000 to be funded over a three-year period at \$640,000 per year, which is approximately 2.3% of the total available funds for all communities.

- **HISTORY OF SERVICE:** Baxter County Regional Airport is county owned and operated. Currently, there is only charter service available with no commuter service. Lone Star Airlines began serving the airport in October 1989 with services to St. Louis. In February 1991, Lone Star expanded service with flights to Hot Springs, Arkansas with continuing service to Dallas-Fort Worth airport. Lone Star discontinued service into Baxter County Regional Airport in the Fall of 1998. Big Sky Airlines took over the commuter services for Lone Star in November 1998. Big Sky continued to serve the region until it terminated services in September 2001.

- **BACKGROUND OF BAXTER COUNTY:** The continuing growth of the population, income, and economic base of Baxter County is a significant factor warranting access to the National Air Transportation System. The area obtained its first economic stimulus in the 1940's with the construction of the Norfolk and Bull Shoals hydroelectric dams. In the 1960's, Baxter Healthcare, the County's largest employer, established a manufacturing plant on the northern outskirts of Mountain Home. Recent growth has come from an expanding population of retirees, the area's popularity as a tourist destination, and Mountain Home's emergence as the distribution center of north central Arkansas and south central Missouri. The new and already fully endowed Mountain Home campus of the Arkansas State University and the expanding Baxter County Regional Hospital highlight the growing importance of Baxter County. As the Baxter County community becomes larger and more sophisticated, its requirements for air access also grow. Ensuring that Baxter County's air transportation services are commensurate with other expanding sectors of the economy is the major purpose of this grant request.
- **COMMUNITY DEMOGRAPHICS:** Baxter County, Arkansas is located in the Ozark mountains of north central Arkansas. The airport is approximately 150 miles north of Little Rock, Arkansas and approximately 110 miles southeast of Springfield, Missouri. The 2000 census showed the population of Baxter County had grown to 38,386. Baxter County is the twelfth fastest growing county out of 75 in the State of Arkansas. The other eight counties to be served by the commuter service have experienced similar growth.
- **PUBLIC-PRIVATE PARTNERSHIP:** The public-private partnership was established in January 2002 between the Airport Commission, the Southshore Foundation, and Twin Lakes Economic Development Commission. Twin Lakes Economic Development Commission is a non-profit organization that was formally a part of the Mountain Home Chamber of Commerce. The Southshore Foundation is private not-for-profit organization that promotes economic development and tourism.

- **CURRENT STATUS:** Currently, Baxter County Regional Airport Commission is attempting to bring commuter service to the area by conducting negotiations with a carrier. Informal negotiations have taken place, but the Commission has been informed that the service is not possible without subsidy.
- **PREVIOUS BOARDING DATA:** Existing data from the previous commuter service's boardings substantiate the need for subsidy. The enplanement data reflects a decline in passengers boarding due to previous inadequate airline service (see Appendix "B"). In 2000, Baxter County Regional Airport ranked 5th in the state based on passenger count (see Appendices "B" & "C"). A study was done by Edwards & Kelcey, Inc., of Baltimore, Maryland in February 1999, before Big Sky discontinued service. The study found the total Baxter County market is estimated to be 42,968 (7,855/.183) inbound and outbound passengers. No additional study is planned.
- **GOALS:** The Airport Commission considers this a new program with the immediate goal of bringing a commuter service to Baxter County Regional Airport, and to begin an advertising campaign. The intermediate goal of 2 years is to make the commuter service self-sustaining. The long-term goal of 3 years is to provide affordable and reliable commuter service, which is profitable to the carrier.
- **MASTER PLAN:** A copy of the master plan for Baxter County Regional Airport is attached as Appendix "D."
- **BUDGET:** The commission is requesting \$1,920,000 from the Small Community Air Service Development Pilot Program. Annual subsidy to the carrier is estimated at \$500,000 per year. Security is estimated at \$40,000 per year, and a multimedia campaign is projected at \$100,000 per year. The commission is proposing to waive all landing fees, seat tax, parking fees, and office and terminal space rental for three years, or until the carrier becomes profitable.
Baxter County Regional Airport is well managed and has been profitable. Airport budgets for the past 2½ years can be found in Appendix "E."

- **LOCAL PARTICIPATION:** In 1993, the community business leaders, aware of the need for an airport terminal, banded together to raise over one-half million dollars to construct a new terminal building. The Baxter county Quorum Court and the Mountain Home City Council each appropriated \$250,000 to the project. Other community businesses participated by donating funds to the project, or by discounting services and cost of materials. The terminal is 6,800 square feet and has an estimated appreciated value of \$850,000.00.

The local share will include the following in-kind services: free parking for commuter customers; all landing fees, seat tax, boarding tax, and office and terminal space rental will be waived for the first three years, or until the carrier becomes profitable. The estimated fair value of the in-kind community participation is at least \$72,000 per year.

- **PUBLIC RELATIONS:** A public relations firm will be hired to promote Baxter County Regional Airport commuter services in the event the grant is funded. A public relations and marketing strategy has been developed to include recommendations for a multi-media advertising campaign directed at stimulating new demand at the local airport, and making service more attractive to local passengers. The campaign will be directed to residents and businesses in Baxter, Marion, Searcy, Sharp, Fulton, Izard and Stone Counties in Arkansas, and Ozark and Howell Counties in Missouri (see Appendices "F" and "G").

- **SUPERVISION OF EXPENDITURES:** A sub-committee of the Airport Commission will serve as the oversight committee to supervise services and ensure its contributions are met in the manners proposed.

- **DETERMINATION OF EFFECTIVENESS:** The effectiveness of the action plan will be determined by the ability of a commuter airline to establish profitable service over a three-year period.

- **MONITORING:** The Airport Commission will monitor the success of the program based on immediate, intermediate, and long-term goals. The Commission will notify

the department by letter of all critical milestones during the life of the program, including the need to modify or discontinue funding.

- **CONCLUSION:** This proposal will provide the incentives and community support needed to allow commuter airline services to return and prosper at Baxter County Regional Airport.

APPENDICES

- A. Letters of Support**
- B. Enplanement Data**
- C. Article from The Baxter Bulletin
About Airport Ranking**
- D. Master Plan for Baxter County Regional
Airport**
- E. Baxter County Regional Airport Budgets**
- F. Map of Counties to be Served**
- G. Public Relations and Marketing Plan**

APPENDIX A

MAHION BERRY
1ST DISTRICT, ARKANSAS

COMMITTEES
AGRICULTURE

SUBCOMMITTEES
DEPARTMENT OPERATIONS, OVERSIGHT,
NUTRITION, AND FORESTRY

GENERAL FARM COMMODITIES
AND RISK MANAGEMENT

TRANSPORTATION AND
INFRASTRUCTURE

SUBCOMMITTEES
ECONOMIC DEVELOPMENT, PUBLIC BUILDINGS
AND EMERGENCY MANAGEMENT

WATER RESOURCES AND THE ENVIRONMENT

Congress of the United States
House of Representatives
Washington, DC 20515-0401

1113 LONGWORTH HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
TEL.: (202) 225-4076
FAX: (202) 225-5602

615 SOUTH MAIN STREET
SUITE 211
JONESBORO, AR 72401
TEL.: (800) 866-2701
FAX: (870) 972-4805

116 NORTH FIRST STREET
SUITE C-1
CABOT, AR 72023
TEL.: (501) 843-3043
FAX: (501) 843-4855

April 16, 2002

Mr. Read C. Van de Water
Assistant Secretary for Aviation and International Affairs
United States Department of Transportation
400 7th Street, SW
Washington DC 20590

Dear Mr. Van de Water:

I am writing in regard to the proposal by Baxter County Regional Airport, located in Mountain Home, Arkansas, for the "Small Community Air Service Development Pilot Program." As a Member of Congress, one of my top priorities is economic and rural development. Therefore, I am always pleased to see different entities in the First Congressional District seek funding to improve the quality of life in their area.

Until last September, Baxter County Regional Airport never received a federal subsidy and remained the fifth largest airport, in terms of boardings, in the state. It was the only regional airport in north central Arkansas to provide service to St. Louis, Missouri. The commuter service, Big Sky, canceled its service to Baxter County due to its own financial constraints. The service provided must be restored to manage the economic growth that is projected for the area. While Baxter County Regional Airport currently has several interested commuter services, it needs the initial funding to draw the service to Mountain Home. For these reasons, I believe Baxter County Airport would be a successful pilot program, and I support their efforts to secure funding through this proposal.

Thank you for your time and consideration in this matter of mutual interest. It is with pleasure that I serve the people of the First Congressional District of Arkansas.

Sincerely,



MARION BERRY
Member of Congress

Congress of the United States
Washington, DC 20510

April 17, 2002

Mr. Matt C. Harris
Special Assistant to Assistant Secretary for
Aviation and International Affairs
U.S. Department of Transportation
400 Seventh Street, Southwest
Washington, D.C. 20590

Dear Mr. Harris:

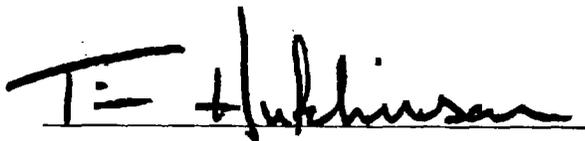
We are writing to express our strong support for the Baxter County Regional Airport's application for the Small Community Air Service Development Pilot Program, and ask that you carefully consider their request.

Baxter County is one of the fastest growing and economically developing areas in Arkansas and is in desperate need of dependable air service. Following the terrorist attacks on September 11, the region's air carrier, Big Sky Airlines, withdrew service. While the airline had some service issues, the airport was able to sustain non-subsidized air service for many years.

We believe that the region's past performance with maintaining commercial air service and its potential to attract untapped markets fits well with the intentions behind the inclusion of this program in the Aviation Investment and Reform Act for the 21st Century. We also call your attention to the full support provided by the county, chamber of commerce and airport commission, which have pledged to fully participate in helping to ensure this proposal is a success.

Thank you for your consideration and we look forward to working with you as the application process continues.

Sincerely,





BLANCHE LAMBERT LINCOLN
ARKANSAS

355 DIRKSEN BUILDING
TELEPHONE: (202) 224-4843

www.senate.gov/~lincoln

COMMITTEES:
AGRICULTURE, NUTRITION, AND FORESTRY
FINANCE
SELECT COMMITTEE ON ETHICS
SPECIAL COMMITTEE ON AGING

United States Senate

WASHINGTON, DC 20510

April 16, 2002

Mr. Matthew Harris
Special Assistant to Assistant Secretary
for Aviation and International Affairs
U.S. Department of Transportation
400 7th Street, S.W.
Washington, DC 20590

Dear Mr. Harris:

It is my pleasure to write in support of the Baxter County Regional Airport, which has applied for funding through the Small Community Air Service Development Pilot Program. As an ardent supporter of local economic development, I believe this project will not only improve the quality of life for many families in the region served by the Baxter County Regional Airport, it will make the area more attractive to business and industry.

Baxter County Regional Airport is a county-owned and operated airport located in the Ozark Mountains of north central Arkansas, 2.5 hours away from the nearest major commercial airports in Little Rock and Springfield, Missouri. Following completion of a new \$300,000 terminal built entirely using community funds, the Baxter County Regional Airport is fully equipped to handle a variety of aircraft, including commercial air carriers.

North central Arkansas has experienced significant growth recently due to an increased number of retirees, the area's increasing popularity as a tourist destination, and Mountain Home's emergence as a distribution center for north central Arkansas and south central Missouri. The growth of the population, income, and economic base of north central Arkansas warrants access to the national air transportation system. Funding through the Small Community Air Service Development Pilot Program would allow the airport to take the next step in attracting affordable and reliable passenger air carrier service to north central Arkansas.

I urge your favorable consideration of the proposal by the Baxter County Regional Airport to foster the development of commercial airline service through the Small Community Air Service Development Pilot Program. If I can be of further assistance, please do not hesitate to contact me.

Sincerely,


Blanche L. Lincoln

BLL/mgl

cc: The Honorable Joe Bodenhamer, Baxter County Judge
cc: The Honorable Joe Dillard, City of Mountain Home
cc: Mr. David Floyd, Chair, Baxter County Airport Commission
cc: Mr. Richard Sheid
cc: Mr. Jim Gaston



CHAMBER OF COMMERCE

April 15, 2002

Baxter County Airport Commissioners
Baxter County Regional Airport
P.O. Box 977
Mountain Home, AR 72654

Dear Sir or Madam:

As the executive director of the Mountain Home Chamber of Commerce, I was pleased to hear that the Department of Transportation is instituting a new air service development program for small communities such as ours here in Mountain Home.

It is very important that Mountain Home has a link to the national air transportation system. One of the goals of the Chamber of Commerce is to attract new businesses and industries to our area. In order for us to be successful in doing so we must have some type of reliable air service. I would say eighty percent of the prospects we talk with prefer a location that has air service. Most larger corporations have head quarters else where in the United States and their employees must have easy access to air service allowing them to travel to and from the main offices when needed.

Air service is not only important for recruiting new businesses, but it is vital to our existing businesses and industries. Without local air service our business travelers must drive two and half hour to the nearest airport. This is a very inconvenient and expensive way to travel. We do not want to risk the loss of businesses or industries in our area due to the difficulty of traveling.

If we want Mountain Home to continue to grow we must do everything possible to provide air service that is dependable, convenient, comfortable and cost-effective. Your help in soliciting funds through the Department of Transportation to help provide small community air service in Mountain Home is much appreciated.

Sincerely,

A handwritten signature in cursive script that reads "Barbara Fouts".

Barbara Fouts
Executive Director
Mountain Home
Chamber of Commerce

Baxter Healthcare Corporation
1900 N. Hwy. 201
Mountain Home, Arkansas 72653

870-424-5200
Fax: 870-424-5222

Baxter

April 4, 2002

Baxter County Airport Commissioners
Baxter County Regional Airport
P.O. Box 977
Mountain Home, AR 72654

Dear Sir or Madam:

As plant manager of Baxter Healthcare Corporation in Mountain Home, Arkansas, I was pleased to hear that the Department of Transportation is instituting a new air service development program for small communities such as ours here in Mountain Home.

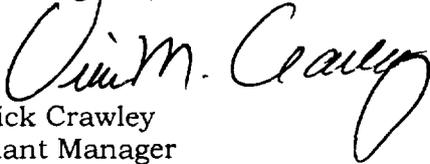
A link to the national air transportation system is important for rural states like Arkansas to foster economic development. The fact is that without convenient, affordable, reliable air service, it is difficult to retain existing businesses and industries - and it's more difficult to attract new clients. What's more, maintaining air service to rural America benefits local and state economies and the national economy.

Local businesses such as Baxter County Regional Hospital, Eaton/Aeroquip Corporation, Ranger Boats, Epoxyn Corporation, American StitchCo and Baxter Healthcare Corporation grew in the past due in part to ease of access via Baxter County Regional Airport. No local air service means business travelers must drive 2 - 2½ hours to connect with the nearest airport resulting in lost productivity on the job and increased travel expenses; and their customers and suppliers are inconvenienced as they try to reach the area.

If we are to succeed in creating new jobs, attracting more investment in our beautiful area and maintaining and growing existing industry, we must do everything possible to provide air service that is dependable, convenient, comfortable and cost-effective. Baxter Healthcare produces important life-saving products used by physicians, hospitals, clinics and patients. We employ over 1650 dedicated citizens from Mountain Home and the surrounding areas. Access to dependable air service will help Baxter Healthcare and other fine Arkansas businesses continue to develop and grow.

Your help in soliciting funds through the Department of Transportation to help provide small community air service in Mountain Home is appreciated.

Best regards,



Vick Crawley
Plant Manager
Baxter Healthcare Corp.



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WORLD CLASS ACHIEVEMENT 1996, 1999



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PRIZE
for EXCELLENCE in
MANUFACTURING
2001



2001



Baxter Regional Medical Center

STEPHEN M. ERIXON
CHIEF EXECUTIVE OFFICER

624 Hospital Drive
Mountain Home, Arkansas 72653
(870) 508-1039
Fax (870) 424-2444
www.baxterregional.org
serixon@baxterregional.org

Subsidiaries:
The Ahrens Clinic
Hospice of the Ozarks
Hospital Development
Foundation

Member:
Baxter Regional PHO, Ltd.

April 17, 2002

Baxter County Airport Commissioners
Baxter County Regional Airport
P.O. Box 977
Mountain Home, AR 72654

Dear Sir or Madam:

As Chief Executive Officer of Baxter Regional Medical Center, I was pleased to hear that the Department of Transportation is instituting a new air service development program for small communities such as Mountain Home.

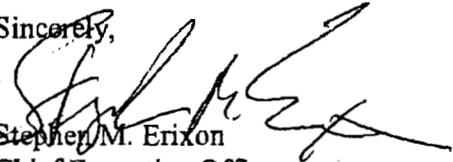
A link to the national air transportation system is important for rural states like Arkansas to foster economic development. The fact is that without convenient, affordable, reliable air service, it is difficult to retain existing businesses and industries - and it is more difficult to attract new clients. What's more, maintaining air service to rural America benefits local and state economies and the national economy.

Local business such as Eaton/Aeroquip Corporation, Ranger Boats, Epoxyn Corporation, American StitchCo, and Baxter Healthcare Corporation grew in the past due in part to ease of access via Baxter County Regional Airport. No local air service means business travelers and professionals must drive 2 to 2-1/2 hours to connect with the nearest airport resulting in lost productivity on the job and increased travel expenses. This impacts our ability to recruit the best individuals for our medical center.

If we are to succeed in creating new jobs, attracting more investment in our beautiful area and maintaining and growing existing industry, we must do everything possible to provide air service that is dependable, convenient, comfortable, and cost-effective. Baxter Regional Medical Center employs over 1,100 dedicated citizens from Mountain Home and the surrounding areas. Access to dependable air service will help BRMC and the community continue to develop and grow.

Your help in soliciting funds through the Department of Transportation to help provide small community air service in Mountain Home is appreciated.

Sincerely,


Stephen M. Erixon
Chief Executive Officer

OFFICE OF THE CHANCELLOR

ARKANSAS STATE
UNIVERSITY
MOUNTAIN HOME1600 South College
Mountain Home, AR 72653Phone:
870-508-6101Fax:
870-508-6288

April 17, 2002

Baxter County Airport Commission
Baxter County Regional Airport
P.O. Box 977
Mountain Home, AR 72653

Dear Gentlemen:

This letter is in support of the Baxter County Regional Airport Commission's grant proposal under the Small Community Air Service Development Pilot Program. Baxter County and the adjacent counties in the region are desperately in need of airline service. The closest airports to Mountain Home are at least a 2 ½ hour drive from Mountain Home on a rural two-lane highway system. With security requesting passengers to arrive two hours early, plus the 2 ½ hour drive, it is almost five hours before we even board a carrier.

Without convenient, affordable, reliable, air service it is not possible for the Mountain Home area and other surrounding counties to continue to grow at their current rate. It is imperative that we have access to an airline to entice new businesses into our area and to maintain and foster the growth of the business located in Baxter County.

We appreciate your full consideration to this proposal. It is crucial to the economic growth of our community.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ed Coulter', written in a cursive style.

Ed Coulter
Chancellor

mc



"Still building legends...one at a time."

April 9, 2002

Baxter County Airport Commission
Baxter County Regional Airport
PO Box 977
Mountain Home AR 72654

Dear Commission Members:

It is my understanding that the US Department of Transportation has instituted a new program, which will grant funds to small community airports to assist them in getting air service or maintaining current air service.

Connection to major airlines is necessary for growth in rural communities such as ours and in the industries located within these communities. Without reliable and affordable local air service our suppliers, customers, dealers and representatives must drive several hours to make connections causing increased travel expenses and lost productivity time, not to mention the inconvenience.

We appreciate your efforts in soliciting funds through the Small Community Air Service Development Program to provide air service in Baxter County.

Sincerely,

RANGER BOATS

A handwritten signature in black ink that reads "Randy Hopper". The signature is written in a cursive style with a large, sweeping flourish at the end.

Randy Hopper
President

RH/tk
2002.021



Global Hose Division
1830 Hwy. 201 South Spur
Mountain Home, AR 72653
(870) 425-6051
FAX: (870) 424-9155 Hose
FAX: (870) 424-9154 RMF

April 12, 2002

Baxter County Airport Commission
Baxter County Regional Airport
P.O. Box 977
Mountain Home, AR 72654

To the Baxter County Airport Commission:

It has come to my attention that the US Department of Transportation has instituted a Small Community Air Service Development Program. If my understanding is correct, the purpose of the program is to provide an opportunity for small community airports nationwide to receive federal grant money, which would allow them to begin or continue to provide air service. If so, this would be of tremendous benefit to rural communities in the U.S., such as ours here in Mountain Home, whose local economies depend heavily on the strength and growth of the industries that support them.

Mountain Home is, as you know, a flourishing community that attracts a variety of people representing a diversity of interests, from outdoor recreation to retirement. There is also a thriving industrial base characterized by successful local businesses such as Baxter Healthcare Corporation, Ranger Boats, Epoxyn Corporation, American StitchCo, and Eaton Corporation. Many dynamic economic synergies are in place here in our beautiful, though relatively isolated region (the nearest interstate is about 100 miles away). In order to not only maintain our economic vitality, but also to increase it, it is critical that air service be provided through Baxter County Regional Airport.

The most cost effective alternative to local air travel is provided by Little Rock National Airport, which is nearly 3 ½ hours away. Though of tremendous scenic beauty, the trip through the hills and woodlands of Ozark National Forest is hardly a convenience to our customers, suppliers, visitors, and travelers. It also represents an additional cost in terms of increased expenses, as well as lost time and productivity. Springfield-Branson Regional Airport is a closer drive than Little Rock; however, with air travel costs frequently more than triple those for flights out of Little Rock, this hardly represents a viable option.

Eaton Corporation is not only an active member of the economic mélange in Mountain Home, but an important patron of the local community as well, employing nearly 300 people from Baxter County and the surrounding region. It is in the best interest of the people who live, work, and play here to have access to air service that is available, reliable, and affordable. Therefore, I urge you to petition the Department of Transportation to consider Baxter County Regional Airport for receipt of the Federal grant money and the benefits that integration with the national air transportation system would provide to our region.

Respectfully,

A handwritten signature in black ink, appearing to read 'D. Higgs', written in a cursive style.

David Higgs
Plant Manager
Eaton Corporation
Mountain Home, AR

APPENDIX B

ARKANSAS
BUSINESS.COM



Industry News
& Research

airports

enter e-mail



Arkansas Business - Business List
Jack Whitsett - 5/21/01

Ranked by 2000 total passenger count

1. Little Rock National Airport/Adams Field at Little Rock

Passenger Count
2000 total: 2,556,609
1999 total: 2,574,454
Percent Change: -.06

Enplanements
2000: 1,285,162
1999: 1,288,077

Deplanements
2000: 1,271,447
1999: 1,286,377

Airlines
American, American Eagle, Comair, Continental Express, Delta, Northwest, Southwest, TransWorld, United Express, US Airways Express

2. Northwest Arkansas Regional Airport at Bentonville

Passenger Count
2000 total: 725,235
1999 total: 653,022
Percent Change: 9.96

Enplanements
2000: 367,157
1999: 329,216

Deplanements
2000: 358,078
1999: 323,806

Airlines
American Eagle, Atlantic Southeast, Northwest, TransWorld Express, US Airways

3. Fort Smith Regional Airport

Ark
Busi
Bus

BANK of



ARK
TECHN
RESC

for the
Print Edition
Arkansas Bu

FREE

enter e-mail

enter keywords

Passenger Count
2000 total: 208,062
1999 total: 215,184
Percent Change: -3.4

Enplanements
2000: 104,182
1999: 108,072

Deplanements
2000: 103,880
1999: 107,112

Airlines
American Eagle, Atlantic Southeast, Northwest Airlin, TransWorld Express

4. Texarkana Regional Airport

Passenger Count
2000 total: 78,955
1999 total: 86,694
Percent Change: -9.8

Enplanements
2000: 40,225
1999: 43,527

Deplanements
2000: 38,730
1999: 43,167

Airlines
American Eagle, Atlantic Southeast

 5. Baxter County Regional Airport of Midway

Passenger Count
2000 total: 8,304
1999 total: NA
Percent Change: NA

Enplanements
2000: 4,149
1999: NA

Deplanements
2000: 4,155
1999: NA

Airlines
Big Sky Airlines

6. Hot Springs Memorial Airport

Passenger Count
2000 total: 5,143
1999 total: 4,714
Percent Change: 8.34

Enplanements
2000: 2,600
1999: 2,321

Deplanements

2000: 2,543
1999: 2,321

Airlines
Big Sky Airlines

Not Ranked

+ • Boone County Airport at Harrison

Passenger Count
2000 total: NA
1999 total: 5,745
Percent Change: NA

Enplanements
2000: NA
1999: 2,832

Deplanements
2000: NA
1999: 2,913

Airlines
Big Sky Airlines

• Jonesboro Municipal Airport

Passenger Count
2000 total: NA
1999 total: 4,288
Percent Change: NA

Enplanements
2000: NA
1999: 2,186

Deplanements
2000: NA
1999: NA

Airlines
Big Sky Airlines

• South Arkansas Regional Airport at El Dorado

Passenger Count
2000 total: NA
1999 total: NA
Percent Change: NA

Enplanements
2000: NA
1999: NA

Deplanements
2000: NA
1999: NA

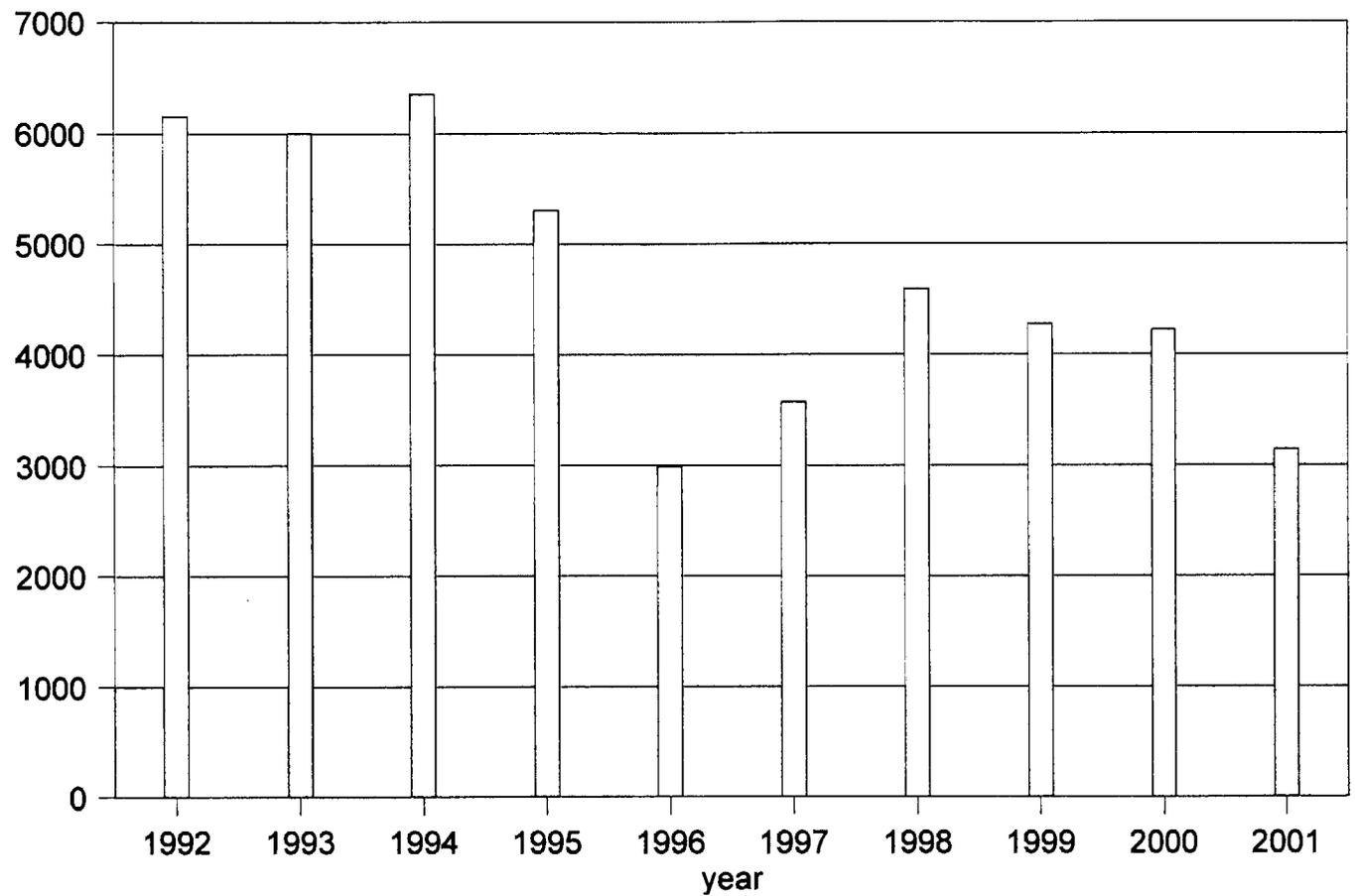
Airlines
Big Sky Airlines

Sources: The airports, Federal Aviation Administration

Baxter County Regional Airport Enplanement Data

1992--	6159
1993--	6002
1994--	6350
1995--	5300
1996--	2988
1997--	3574
1998--	4595
1999--	4275
2000--	4226
2001--	3149

Enplanements 1992-2001



APPENDIX C

No objections voiced at hangar bond hearing

By SHARON MILLER
Bulletin Staff Writer

With no objections voiced, action will proceed on financing new hangars and refinancing existing hangars at the Baxter County Regional Airport (BCRA).

A public hearing on the issue of revenue bonds for the project was held Wednesday at the Baxter County Courthouse.

The hearing lasted only about five minutes, since nobody had comments on the matter.

The amount of the bonds, \$701,000, includes about \$397,000 for construction of 18 new enclosed hangars, \$110,000 still owed on existing hangars, plus reserves to be kept in escrow.

Officials said only the hangars are at risk in case of

default. In such instance, the bond holder could take the hangars and lease them.

Airport Authority Chairman David Floyd said a resolution will now go before the Quorum Court. If it is approved, the airport will take bids on the bonds to get the best interest rates. He said two local financial institutions have already expressed interest in bidding,

and other local institutions will be notified as well.

The commission has been looking at building new hangars for the past several years, and there is a waiting list for the hangars.

The need for new hangars has come with the growth of BCRA that is now ranked fifth in the state based on passenger count for 2000, according to a

recent article in *Arkansas Business*.

BCRA had a passenger count of 8,304 for 2000, with 4,149 enplanements and 4,155 deplanements.

According to the article, Little Rock National Airport/Adams Field is the largest with passenger count of

See HANGAR/Page 12A

Hangar deal proceeds

HANGAR/From Page 1A

2,556,609. It has 10 airlines.

Northwest Arkansas Regional Airport at Bentonville was second with passenger count of 725,235. The airport has five airlines.

Third was Fort Smith Regional Airport with passenger count of 208,062 and four airlines.

Texarkana Regional Airport was fourth with 78,955 passenger count and two airlines.

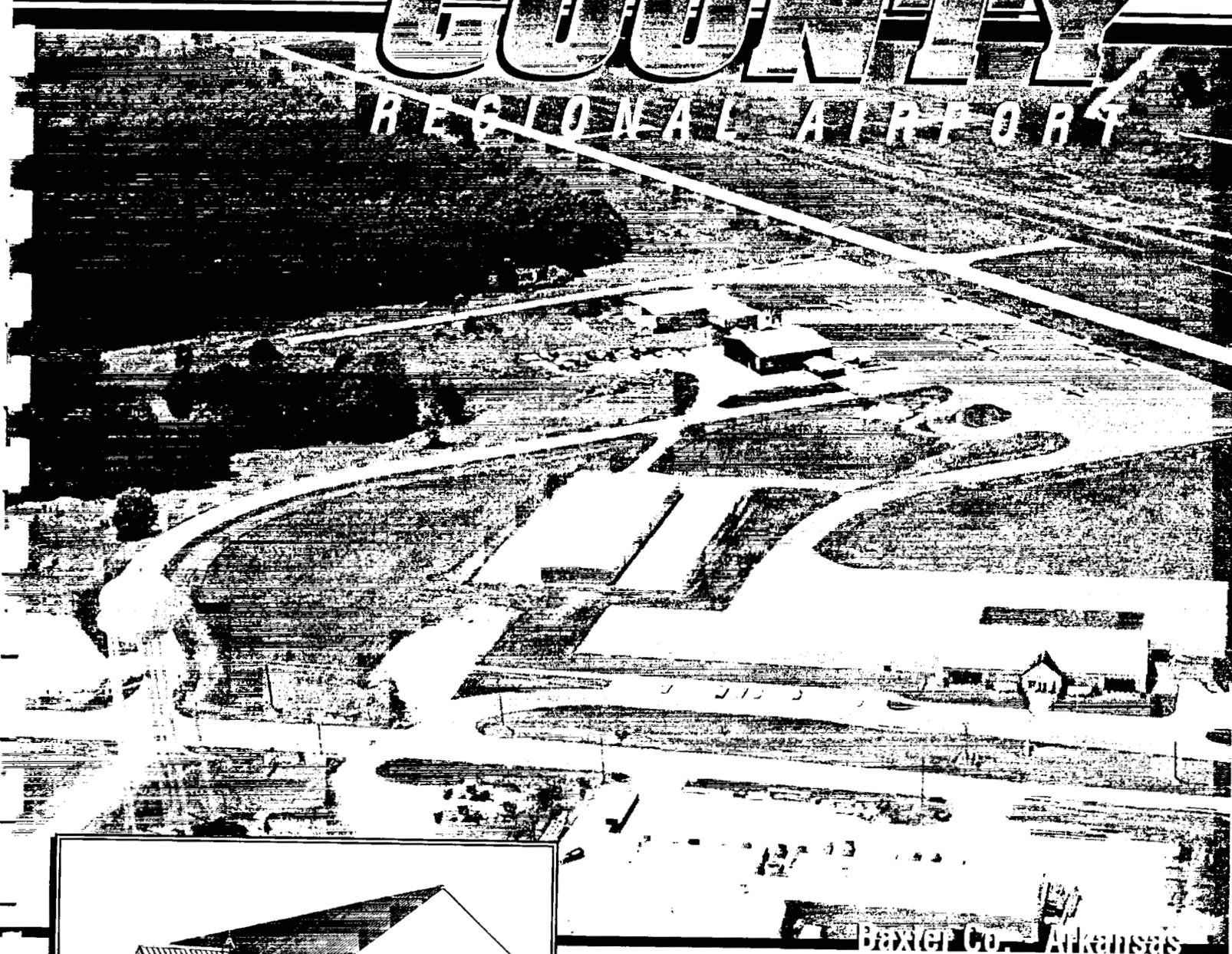
Sixth on the list was Hot Springs Memorial Airport with passenger count of 5,143. Like BCRA, Hot Springs is served by Big Sky Airlines.

Baxter County Judge Joe Bodenhamer commended the Airport Authority on its work toward financing the hangars.

Floyd said the refinancing will likely save the airport thousands of dollars and the new hangars will benefit the entire area.

APPENDIX D

BAXTER COUNTY REGIONAL AIRPORT



**AIRPORT
MASTER
PLAN**

DRAFT

AIRPORT MASTER PLAN
for
BAXTER COUNTY REGIONAL AIRPORT
Baxter County, Arkansas
Draft Report

Prepared For The
BAXTER COUNTY
AIRPORT AUTHORITY

By
GRIMES CONSULTING ENGINEERS, INC.
3700 Cantrell Rd., Suite 106
Little Rock, AR 72202

In Association With
COFFMAN ASSOCIATES, INC.
237 N.W. Blue Parkway, Suite 100
Lee's Summit, MO 64063

August 1998

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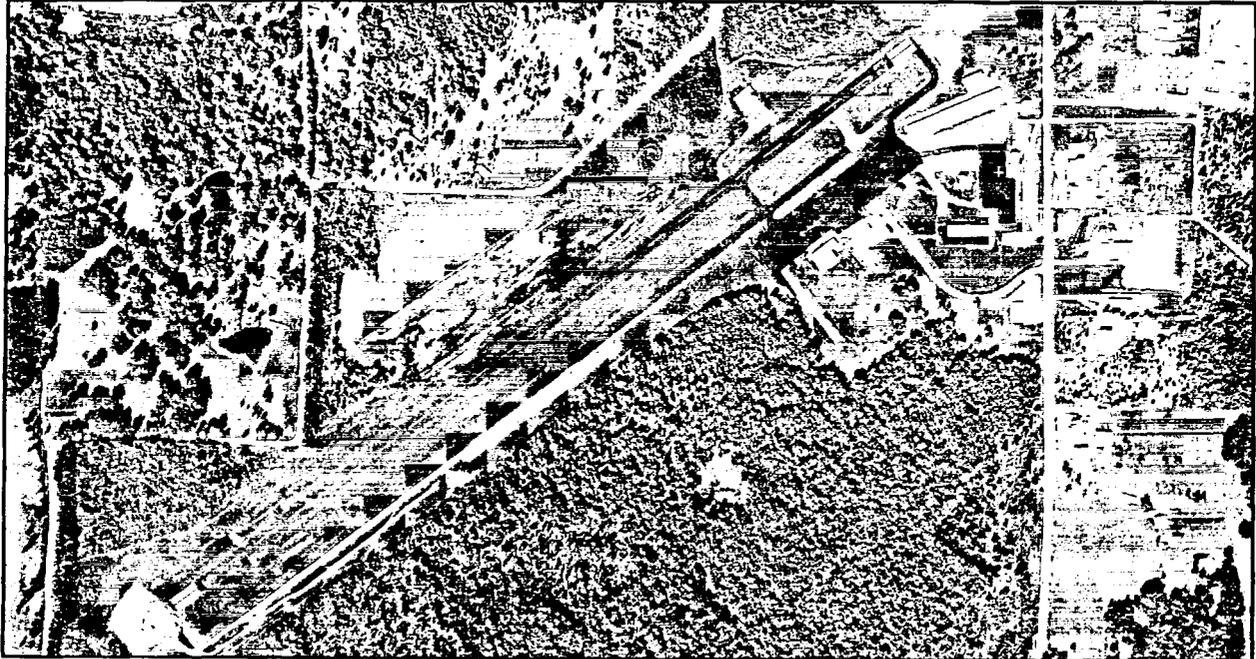
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Chapter One
EXISTING CONDITIONS

EXISTING CONDITIONS



The development of a Master Plan for the Baxter County Regional Airport required the collection and evaluation of information relating to the airport and surrounding area. This information included:

- Physical inventories and descriptions of facilities and services now provided by the airport.
- Background information pertaining to the Baxter County, Arkansas area and description of development which has taken place at the airport recently.
- Population and socioeconomic information which provides an indication of possible future development in the Mountain Home area.

- A review of the existing regional plans and studies to determine their potential influence on the development and implementation of the Airport Master Plan.

A basic inventory is essential to the success of a master plan since the findings and assumptions made in this plan are dependent on collected information concerning conditions on and around the airport. This information was obtained through on-site investigations of the airport and interviews with the airport management and representatives from Baxter County. Information was also obtained from available documents and studies concerning the airport and the Baxter County area, including the previous Airport Master Plans completed in 1980 and 1993.

AIRPORT SETTING

Baxter County Regional Airport is located on 222 acres near Midway in north-central Arkansas, fifteen miles south of the Missouri border. The airport is approximately eight miles west of Mountain Home, the county seat of Baxter County. The intersection of County Road 909 and Arkansas Highway 126 forms the northeast boundary of the airport. The airport is classified as a Commercial Service Airport by the Federal Aviation Administration.

Access to the airport may be gained from Arkansas Highway 126. **Exhibit 1A** is a location map showing the location of Baxter County and the regional airport.

The Baxter County Regional Airport is operated under an airport authority. Authority members are appointed by the Baxter County Quorum Court, which is the governing body for Baxter County. Currently, there are seven authority board members.

AIRPORT DEVELOPMENT HISTORY

Baxter County Regional Airport was developed during the 1960's by the Industrial Development Corporation of the Ozarks (IDCO). Its primary purpose was to provide the Twin Lakes Industrial District with air service. The Twin Lakes Industrial District is a 700 acre tract for industrial and economic development located south of Midway, Arkansas. At that time, the highways serving the area were not conducive to

high-speed travel, and the nearest rail service was provided by a Missouri-Pacific Railroad branch located at Cotter, Arkansas approximately ten miles southwest of Mountain Home. It was the hope of IDCO that the airport development would attract other manufacturing firms to the North-Central Arkansas area.

The airport, originally known as the Twin Lakes Municipal Airport, was constructed in 1965. Because it was owned by IDCO, the airport was considered a private facility and not eligible for federal or state development funding. As a result, the facility was constructed using private financing and donated labor and services. Much of the funding was provided by the sale of six percent, \$1,000 debentures. Funding for the original hangar building was provided, in part, by the Mobil Oil Company. The lighting system was installed by North Arkansas Electric Cooperative. Runway earthwork and grading was provided by the City of Mountain Home, while additional construction work was conducted by Hicks and Ross Contractors, Inc.

Once the airport was constructed, IDCO had intended for either the City of Mountain Home or Baxter County to acquire ownership, and assume the operation and maintenance of the facility. However, in 1966 a five mill tax bond issue for the acquisition of the airport was defeated. The facility was then leased to the City of Mountain Home for \$1.00 per year plus the performance of required maintenance. The airport was operated in this manner until 1975, when the lease was terminated by the City of Mountain

BAXTER COUNTY

REGIONAL AIRPORT

NOT TO SCALE

NORTH



Home. After the termination of the lease, the facility was leased to the Mountain Home Air Service, Inc.

In March of 1978, the Baxter County Airport Authority was formed to develop and operate the facility. In July of 1979, the airport facility's name was changed to, and remains, the Baxter County Regional Airport.

Over the past five years, the following improvements have taken place on the airport:

- 1992 - Trees were removed on the west side of the airfield, a new entrance was constructed to the fixed base operator (FBO), a new 10-unit hangar was constructed on the airfield, and an automated surface observing system (ASOS) was installed on the west side of the airfield (not currently in operation).
- 1993 - A new passenger terminal building was constructed, a new building for Ozark Regional Flight Service was constructed, a taxiway was extended, and a new mid-field taxiway exit was added.
- 1994 - Ramp for the new terminal building was completed, a five-bay fire station for the Midway Volunteer Fire District was constructed, and new above-ground fueling facilities were installed.
- 1995 - The general aviation ramp was extended at both ends,

creating 48 aircraft tie-down positions, and a new 8,000-square foot hangar was constructed for the FBO.

- 1996 - The general aviation ramp was completed, and Taxiway B was constructed to serve future hangar development.
- 1997 - The safety area for Runway 5 was upgraded, Taxiway D (into the terminal ramp) was constructed, and ramp lighting was added for the terminal area.

AIR TRAFFIC ACTIVITY

Currently, there are 50 aircraft based at Baxter County Regional Airport. This includes 36 single engine aircraft, seven twin engine, one turboprop, four helicopters, one experimental, and one ultralight. Regular commercial air service is provided by Executive Express II, dba Lone Star Airlines, dba Aspen Mountain Air. Aspen Mountain Air operates a total of four flights (Monday-Friday), two on Saturday and two on Sunday, with destinations to St. Louis, Missouri and Dallas, Texas. The equipment used on these routes are Swearingen Metroliners, which are two-engine, turboprop aircraft.

EXISTING AIRFIELD FACILITIES

The existing airfield facilities for Baxter County Regional Airport include runways, taxiways, navigational aids and airfield lighting. **Exhibit 1B**

depicts an overview of existing airfield facilities.

RUNWAYS AND TAXIWAYS

The airport is served by a single Runway 5-23. This runway is 75 feet wide and 5,001 feet in length and has a single wheel load rating of 17,000 pounds. **Table 1A** presents runway data for Baxter County Regional Airport.

Access to the runway is provided by a parallel taxiway which runs the length of the runway. Taxiway A is connected to Runway 5-23 via six connecting taxiways. Taxiway A and all connecting taxiways are 40 feet wide.

TABLE 1A Runway Data Baxter County Regional Airport		
	Runway	
	5	23
Length (ft.)	5,001	
Width (ft.)	75	
Surface Material	Asphalt	
Load Bearing Capacity by Gear Type SWL (lbs.)	17,000	
Approach Slope (Clear) Ratio	20:1	20:1
Approach Aids		
PAPI	YES	YES
VOR	YES	NO
RNAV	YES	NO
GPS	YES	YES
Threshold Lighting	YES	YES
Lighting	MIRL	
Marking	Non-Precision	
Source: FAA Form 5010-1.		

NAVIGATIONAL AIDS

Ground-based electronic navigational aids that are located on or near the Baxter County Regional Airport may be functionally classified as enroute navigational aids and terminal area navigational aids.

Enroute Air Navigation Aids:

Enroute nav aids are comprised of two basic types of equipment, the VOR (very high frequency omnidirectional range) and the VORTAC (very high frequency omni-directional range/tactical air navigation). The VOR transmits radio signals every degree to provide 360 individual courses from the transmitting facility. As a VHF facility, the VOR is limited to line of sight transmissions with range affected by the altitude of the aircraft. The VORTAC is similar to the VOR, but links the VOR to the military tactical air navigational aid (TACAN) to provide distance-measuring information in nautical miles from the aircraft to the VORTAC.

A series of electronic airways connect the nav aids to each other as well as terminal aids. Separated into low altitude (1,200 feet above mean sea level or "MSL" to 18,000 MSL), and high altitude (18,000 MSL and above), these airways have specific alignments and designations to reduce confusion during flight planning and air traffic control. The low altitude airways are known as "V" or Victor Airways while the high altitude airways are known as "J" or Jet Routes. There are Victor Airways in the vicinity of Baxter County Regional Airport. These will be

discussed in the Airspace section of this chapter.

Terminal Navigational Aids: The "Flippin" VOR is located 4.2 nautical miles southeast of the Baxter County Regional Airport. This navigational aid is equipped with distance measuring equipment (DME). While this VOR does not provide horizontal approach guidance, it does establish two waypoints, which are coordinates programmed into the aircraft's navigational computer based on the location of a navigational aid. These waypoints provide approach and missed approach information for Runway 5. Because the use of waypoints is not as accurate as a navigational aid, they are considered to be "RNAV", or area navigational aids.

GPS is another enroute navigational (and approach) aid available to pilots. Initially developed by the Department of Defense, it is being increasingly used in civilian aircraft navigation. A system of satellites has been deployed to transmit electronic signals which aircraft may in turn use to calculate their relative location. The FAA is proceeding with a program to gradually replace all traditional enroute navigational aids with GPS by the year 2010. GPS approaches are available to both runways – providing 600-foot minimums on Runway 5 and 500-foot minimums on Runway 23.

LIGHTING AND MARKING

A variety of lighting aids are available at Baxter County Regional Airport to facilitate identification, approach,

landing, and taxiing operations at night and in adverse weather conditions. These systems, categorized by function, are further described below.

Identification Lighting: The location and presence of an airport at night is universally indicated by an airport beacon. At Baxter County Regional, the airport beacon is located on top of a water tower located east of the airport. The eight inch rotating beacon is equipped with an optical system that projects two beams of light, one green and one white.

Approach Lighting: At this time, Baxter County Regional Airport does not have an approach lighting system (ALS), as this is typically associated with a precision runway which is typically equipped with an instrument landing system (ILS). However, precision approach path indicators (PAPI) have been installed at both ends of the runway in order to give pilots of approaching aircraft vertical guidance. Two boxes, each containing two red and two white lights aimed at different vertical angles are placed near the end of each runway. If the aircraft is approaching the runway at the proper altitude the pilot will see two white and two red lights. If more than two red lights are visible the approach is too low. If more than two white lights are visible the aircraft is approaching the runway too high.

Runway and Taxiway Lighting: The runway is equipped with medium intensity runway lights (MIRL) with radio control for brightness. All taxiways are equipped with medium intensity taxiway lights (MITL), also

with radio control. In order to activate the system, a pilot must key his microphone with the radio on a specified frequency. This system has three available intensities of light. If the highest intensity is desired the microphone must be keyed eight times in five seconds, medium intensity six times in five seconds and the lowest intensity is selected by keying the microphone four times in five seconds.

Airport Marking: Runway 5-23 is indicated by non-precision markings, as reflected in **Exhibit 1B**. A segmented circle and wind cone are located approximately 400 feet north of Runway 5-23. This provides wind direction, and to a lesser extent, information on velocity and gusts to the pilot.

TERMINAL AREA FACILITIES

The airport terminal area is located on the east side of the airport and includes the terminal building, aircraft parking apron, hangars, maintenance facilities, fuel storage and automobile parking.

TERMINAL BUILDING

The new 6,800-foot terminal building was constructed in 1993. In addition to airline facilities, this building houses offices for the airport administration and Civil Air Patrol, and a restaurant, Airport Pizza and Sub. While not used at this time, the airline facilities provide the capability for a security checkpoint and sterile area. There is paved parking for 33 vehicles, unpaved parking for 30-40 additional vehicles,

and six positions along the curb for loading/unloading of vehicles.

AIRPORT RESCUE AND FIREFIGHTING FACILITY

A fire station, located approximately 500 feet south of the terminal on Highway 126 and manned by the Midway Volunteer Fire District was erected on land leased from the airport in 1994. All of the current fire equipment carries and uses water, however, the fire department hopes to purchase equipment compatible with aqueous film forming foam (AFFF) at a later date.

FIXED BASE OPERATOR

Currently, Ozark Regional Flight Service is the only Fixed Based Operator (FBO) at Baxter County Regional Airport. The FBO provides fuel, parking, hangars, terminal and lounge, catering, car rental, crew cars, public telephone, pilot lounge/snooze room, and restrooms.

HANGARS

Currently, there are both T-hangars and conventional hangars on the airport. A ten-unit T-hangar is located at the south end of the terminal area. A structure containing eleven shade hangars and seven T-hangars is located near the north end of Runway 23. One hundred x 100-foot and 80 x 100-foot conventional hangars are located at the FBO adjacent to the general aviation apron.

FUEL STORAGE

The airport's fuel farm is located west of the terminal and northeast of the FBO. It consists of two-10,000 gallon above-ground tanks, one for Jet-A, the other for 100LL Avgas both of which are owned by the FBO. The FBO fuels for the entire airport using a 2,000 gallon truck for Jet-A and a 1,500 gallon truck for Avgas.

AUTOMOBILE PARKING

Automobile parking for thirty-three vehicles is available in improved lots located north and south of the terminal building. Additional spaces are located at the FBO, (this includes several spaces reserved for rental car ready and return).

UTILITIES

The availability and capacity of the utilities serving the airport are important factors in determining the development potential of the airport property, as well as that of the land immediately adjacent to the facility. Of primary concern in the inventory investigation is the availability of water, gas, sewer and electricity. Electrical service is provided to the airport by North Arkansas Electric Cooperative; Western Arkansas Gas Company supplies natural gas; and the City of Mountain Home provides water and sewer service. In order to facilitate future airport development, these utilities were designed to provide capacity in excess of current needs.

AIRSPACE STRUCTURE

There is no air traffic control tower at the airport. However, the unicom frequency of 122.7 can be used to contact other aircraft as well as the FBO. The traffic pattern at Baxter County Regional Airport consists of standard left hand turns for Runway 5-23.

The Victor Airways, which are generated by VOR stations, provide air navigation orientation to pilots. Victor Airways are eight miles wide and are known as "highways in the sky." The Victor Airways (below 18,000 feet MSL) which surround the airport are V159, V289 and V140d. **Exhibit 1C** illustrates the airspace structure in the Mountain Home area.

The Memphis Air Route Traffic Control Center (ARTCC) is responsible for enroute control of all aircraft operating on IFR flight plans in the area. Communication can be made with the center on VHF frequency 126.85 or on UHF frequency 286.6.

The Shirley 1 Military Operations Area (MOA) is located south of the airport. The purpose of an MOA is to discourage nonmilitary traffic in airspace being used for maneuvers by military aircraft. In an MOA, the airspace may be off limits to civilian aircraft, or restricted during certain hours and altitudes. The Shirley MOA is limited to military traffic from 10,000 feet above mean sea level (MSL) to, but not including flight level (FL) 180. The device used to measure an aircraft's altitude, the

altimeter, is, in fact, an aneroid barometer which must be calibrated to reflect the atmospheric pressure of the station over which the aircraft is flying. The effect of changing atmospheric pressure diminishes rapidly above 18,000 MSL. Therefore, at altitudes of 18,000 feet and above the altimeter is set for "standard atmospheric pressure", which is 29.92. Altitudes of 18,000 or above are read as flight levels, which reflect hundreds of feet in altitude. Therefore, FL 180 roughly corresponds to 18,000 MSL.

SOCIOECONOMIC CHARACTERISTICS

A variety of historical and forecast socioeconomic information related to Mountain Home and Baxter County has been collected for use in various elements of the master plan. This combined information is essential in determining air transportation service level requirements, as well as forecasting the number of based aircraft and operations at the airport. These forecasts are normally keyed to the economic strength of the region and its ability to sustain a strong economic base over an extended period of time. This type of data provides valuable insight into the trends and character of the community.

In addition to socioeconomic characteristics, other characteristics of the region are important in assessing the development potentials of the airport. Characteristics, such as the existing transportation network of the

region, off airport land use, and weather data were also collected for use in the master planning process.

POPULATION AND EMPLOYMENT

Nestled in the Ozark Mountains, Baxter County is home to both manufacturing industries and recreational opportunities. The county seat, Mountain Home, is centrally located in the region 120 miles southeast of Springfield, Missouri; 191 miles northwest of Memphis Tennessee; and 157 miles north of Little Rock, the capital of Arkansas.

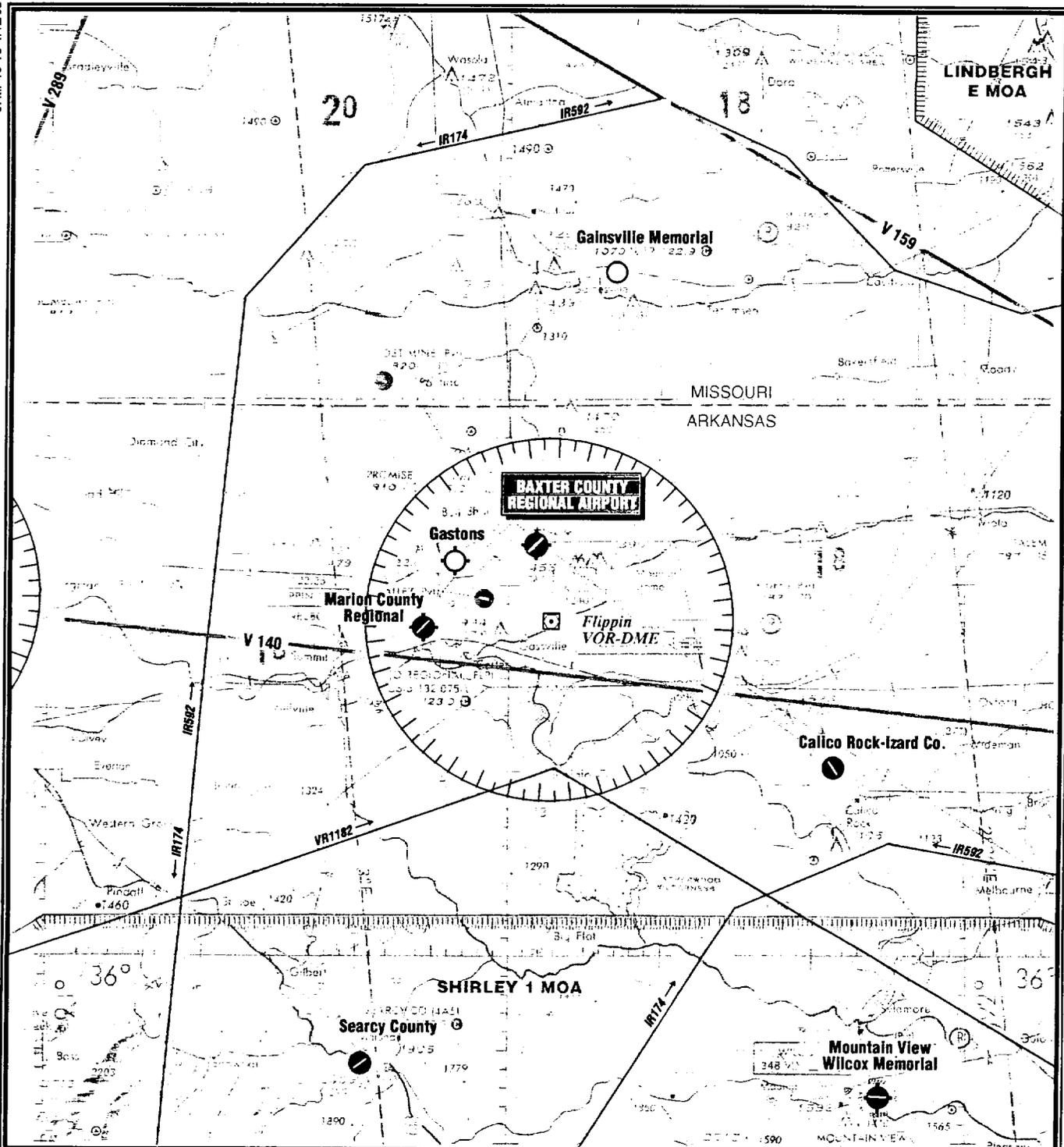
Table 1B reflects population and employment trends and projections for Baxter County.

LOCAL ECONOMY

The Mountain Home area serves as a trade and employment center for the north central region of Arkansas. Approximately 63,000 people reside within a 30-mile radius of Mountain Home. A number of nationally-recognized industries operate in the area:

- Mar-Bax Shirt Company
- Aeroquip
- Epoxyn Products
- Baxter Healthcare Corp. (largest employer with 1,600± employees)

In addition, the area is also home to the following home-grown industries:



LEGEND

- Airport with hard surfaced runway
- Airport with other than hard surfaced runway
- VOR-DME
- Non-Directional Radiobeacon (NDB)
- Compass
- Restricted/Warning Area
- Victor Airways
- Military Training Routes



NOT TO SCALE



- American Stitchco
- Bass Cat Boats
- Champion Boats
- Mountain Muffler
- Mountain Home Manufacturing
- Ranger Boats

Baxter County Regional Hospital has over 1,000 employees; and provides care to a 14-county area. Baxter Regional is one of the lowest-cost healthcare providers in the nation, according to Medicare data.

TABLE 1B		
Baxter County Population and Employment Trends and Projections		
Actual	Population	Employment*
1970	15,500	6,127
1980	27,500	11,364
1990	31,300	14,541
1993	—	16,346
1994	34,600	—
1995	35,666	* Full and part-time
FORECAST		
2000	44,100	N/A
2010	62,400	N/A
Source: State Airport System Plan and Chamber of Commerce		

TRANSPORTATION

The transportation network in Baxter County is relatively well developed. The area is accessible from U.S. Highway 62 as well as several state highways. Highway 62, which formerly required ferry boats to cross the White River, will eventually become part of U.S. Highway 412. Upon completion, this highway will be a coast-to-coast, high-speed "corridor" across the middle of the country.

Scheduled bus service is offered weekly to Chicago and St. Louis by Mountain Home Bus Agency. The Greyhound Bus Agency offers service to Springfield, Missouri and Memphis, Tennessee.

There is no passenger rail service to Baxter County, however, freight rail service is available from Cotter, Arkansas. Parcels may be shipped to and from Baxter County via United Parcel Service, Federal Express, and other couriers.

OFF-AIRPORT LAND USE

Land east of the airport has been developed as the Baxter County Industrial Park. Limited residential development occurs north and south of the airport, with large undeveloped parcels in most areas around the airport.

CLIMATE

Weather conditions play an important role in the planning and development of an airport. Temperature is an important factor in determining runway length, wind speed and determining optimum runway orientation. The percentage of time in which cloud cover impairs visibility is a major factor in determining the need for navigational aids and lighting.

Baxter County has a temperate climate. Rainfall averages 54 inches per year. Mean temperatures range from 36 degrees in January to 80 degrees in July.

IFR conditions are considered to prevail when the horizontal visibility is less than three miles and/or the ceiling is less than 1,000 feet. The climate of Baxter County is such that Visual Flight Rule (VFR) conditions apply 85% of the time.

SUMMARY

The information discussed on the previous pages provides a foundation

upon which the remaining elements of the planning process will be constructed. Information on current airport facilities and utilization will serve as a basis, with additional analysis and data collection, for the development of forecasts of aviation activity, demand/ capacity analysis and facility requirement determinations.

This information will, in turn, provide guidance to the assessment of potential changes to aviation facilities or procedures necessary to meet the goals of the planning process.

The inventory of airport facilities will allow the determination of the needs presented by the airport users in both the short and long terms and the preparation of plans to meet those needs.

Thus, the inventory of existing conditions is the first step in the complex process of determining those factors which will meet projected aviation demands in the community.

GLOSSARY

Included in the following pages are a number of terms with appropriate definitions to assist the reader in understanding the technical language included in this document.

Air carrier: an operator which: (1) performs at least five round trips per week between two or more points and publish flight schedules which specify the times, days of the week and places between which such flights are performed; or (2) transport mail by air pursuant to a current contract with the U.S. Postal Service. Certified in accordance with Federal Aviation Regulation (FAR) Parts 121 and 127.

Air taxi: An air carrier certificated in accordance with FAR Part 135 and authorized to provide, on demand, public transportation of persons and property by aircraft. Generally operates small aircraft "for hire" for specific trips.

Air traffic control tower (ATCT): a central operations facility in the terminal air traffic control system, consisting of a tower, including an associated IFR room if radar equipped, using air/ground communications and/or radar, visual signaling, and other devices to provide safe and expeditious movement of terminal air traffic.

Air route traffic control center (ARTCC): a facility established to provide air traffic control service to aircraft operating on an IFR flight plan within controlled airspace and principally during the enroute phase of flight.

Approach lighting system (ALS): an airport lighting facility which provides visual guidance to landing aircraft by radiating light beams by which the pilot aligns the aircraft with the extended centerline of the runway on his final approach and landing.

Azimuth: horizontal direction or bearing; usually measured from the reference point of 0 degrees clockwise through 360 degrees.

Base leg: a flight path at right angles to the landing runway off its approach end. The base leg normally extends from the downwind leg to the intersection of the extended runway centerline.

Compass locator (LOM): a low power low/medium frequency radio-beacon installed in conjunction with the instrument landing system at one or two of the marker sites.

Displaced threshold: a threshold that is located at a point on the runway other than the designated beginning of the runway.

Distance measuring equipment (DME): equipment (airborne and ground) used to measure, in nautical miles, the slant range distance of an aircraft from the DME navigational aid.

DNL: day-night noise level. The daily average noise metric in which that noise occurring between 10:00 p.m. and 7:00 a.m. is penalized by 10 times.

Downwind leg: a flight path parallel to the landing runway in the direction *opposite* to landing.

Duration: length of time, in seconds, a noise event such as an aircraft flyover is experienced. (May refer to the length of time a noise event exceeds a specified threshold level.)

Enplaned passengers: the total number of revenue passengers boarding aircraft, including originating, stop-over, and transfer passengers, in scheduled and non-scheduled services.

Fixed base operator (FBO): a provider of service to users of an airport. Such services include, but are not limited to, fueling, hangaring, flight training, repair and maintenance.

General aviation: that portion of civil aviation which encompasses all facets of aviation except air carriers holding a certificate of convenience and necessity, and large aircraft commercial operators.

Glide slope: electrical equipment that emits signals which provide vertical guidance by reference to airborne instruments during instrument approaches such as an ILS, or visual ground aids, such as VASI, which provide vertical guidance for a VFR approach or for the visual portion of an instrument approach and landing.

Global positioning system (GPS): a navigational technology based on a constellation of satellites orbiting approximately 11,000 miles above the surface of the earth.

Ground effect: the excess attenuation attributed to absorption or reflection of noise by man-made or natural features on the ground surface.

Instrument approach: a series of predetermined maneuvers for the orderly transfer of an aircraft under instrument flight conditions from the beginning of the initial approach to a landing, or to a point from which a landing may be made visually. It is prescribed and approved for a specific airport by competent authority.

Instrument flight rules (IFR): rules governing the procedures for conducting instrument flight. Also a term used by pilots and controllers to indicate type of flight plan.

Instrument landing system (ILS): a precision instrument approach system which normally consists of the following electronic components and visual aids: localizer, glide slope, outer marker, middle marker, and approach lights.

Localizer (LOC): providing horizontal guidance to the runway centerline for aircraft during approach and landing by radiating a directional pattern of radio waves modulated by two signals which, when received with equal intensity, are displayed by compatible airborne equipment as an "on-course" indication, and when received in unequal intensity are displayed as an "off-course" indication.

Localizer type directional aid (LDA): a facility of comparable utility and accuracy to a localizer, but is not part of a complete ILS and is not aligned with the runway.

Microwave landing system (MLS): an instrument approach and landing system that provides precision guidance in azimuth, elevation, and distance measurement.

Missed approach: an instrument approach not completed by landing. This may be due to visual contact not established at authorized minimums or instructions from air traffic control, or other reasons.

Non-directional beacon (NDB): a radio beacon transmitting non-directional signals that a pilot of an aircraft equipped with direction finding equipment can determine his/her bearing to or from the radio beacon and "home" on or track to or from the station. When the radio beacon is installed in conjunction with the instrument landing system, it is normally called a compass locator.

Nonprecision approach procedure: a standard instrument approach procedure in which no electronic glide slope is provided, such as VOR, TACAN, NDB, or LOC.

Operation: a take-off or a landing.

Outer marker (OM): an ILS navigation facility in the terminal area navigation system located four to seven miles from the runway edge on the extended centerline indicating to the pilot, that he/she is passing over the facility and can begin final approach.

Precision approach path indicator (PAPI): an airport lighting facility in the terminal area navigation system used primarily under VFR conditions. The PAPI provides visual descent guidance to aircraft on approach to landing through a single row of two to four lights, radiating a high intensity red or white beam to indicate whether the pilot is above or below the required approach path to the runway. The PAPI has an effective visual range of 5 miles during the day and 20 miles at night.

Precision approach procedure: a standard instrument approach procedure in which an electronic glide slope is provided, such as ILS.

Precision instrument runway: a runway having a existing instrument landing system (ILS).

Reliever airport: an airport to serve general aviation aircraft which might otherwise use a congested air-carrier served airport.

Runway end identification lights (REIL): an airport lighting facility in the terminal area navigational system consisting of one flashing white high intensity light installed at each approach end corner of a runway and directed toward the approach zone, which enables the pilot to identify the threshold of a usable runway.

Vector: a heading issued to an aircraft to provide navigational guidance by radar.

Victor airway: a control area or portion thereof established in the form of a corridor, the centerline of which is defined by radio navigational aids.

Visual approach: an approach wherein an aircraft on an IFR flight plan, operating in VFR conditions under the control of an air traffic facility and having an air traffic control authorization, may proceed to the airport of destination in VFR conditions.

Visual approach slope indicator (VASI): an airport lighting facility in the terminal area navigation system used primarily under VFR conditions. It provides vertical visual guidance to aircraft during approach and landing, by radiating a pattern of high intensity red and white focused light beams which indicate to the pilot that he/she is above, on, or below the glide path.

Visual flight rules (VFR): rules that govern the procedures for conducting flight under visual conditions. The term **VFR** is also used in the United States to indicate weather conditions that are equal to or greater than minimum VFR requirements. In addition, it is used by pilots and controllers to indicate type of flight plan.

VOR/Very high frequency omnidirectional range station: a ground-based electronic navigation aid transmitting very high frequency navigation signals, 360 degrees in azimuth, oriented from magnetic north. Used as the basis for navigation in the national airspace system. The VOR periodically identifies itself by Morse Code and may have an additional voice identification feature.

VORTAC/VHF Omnidirectional range/tactical air navigation: a navigation aid providing VOR azimuth, TACAN azimuth, and TACAN distance-measuring equipment (DME) at one site.

ABBREVIATIONS

AGL:	above ground level
ALSF:	approach lighting system (with sequenced flashing lights)
ARTCC:	air route traffic control center
ATCT:	air traffic control tower
DME:	distance measuring equipment
DNL:	day-night noise level
DW:	runway weight bearing capacity for aircraft with dual-wheel type landing gear
DTW:	runway weight bearing capacity for aircraft with dual-tandem type landing gear
FAA:	Federal Aviation Administration
FAR:	Federal Aviation Regulation
FBO:	fixed base operator
GPS:	global positioning system
GS:	glide slope
IFR:	instrument flight rules (FAR Part 91)
ILS:	instrument landing system
LAAS:	local area augmentation system
LMM:	compass locator at middle marker
LOC:	ILS localizer
LOM:	compass locator at outer marker
MALSR:	medium intensity approach lights with runway alignment indicator lights
MLS:	microwave landing system

MM: middle marker

MSL: mean sea level

NAVAID: navigational aid

NDB: non-directional beacon

OM: outer marker

PAPI: precision approach path indicator

REIL: runway end identification lights

SEL: sound exposure level

SW: runway weight bearing capacity for aircraft with single-wheel type landing gear

TACAN: tactical air navigation

TRACON: terminal radar approach control

VASI: visual approach slope indicator

VFR: visual flight rules (FAR Part 91)

VHF: very high frequency

VOR: very high frequency omnidirectional range

VORTAC: (see VOR and TACAN)

WAAS: wide area augmentation system



Chapter Two
AVIATION DEMAND FORECASTS

AVIATION DEMAND FORECASTS



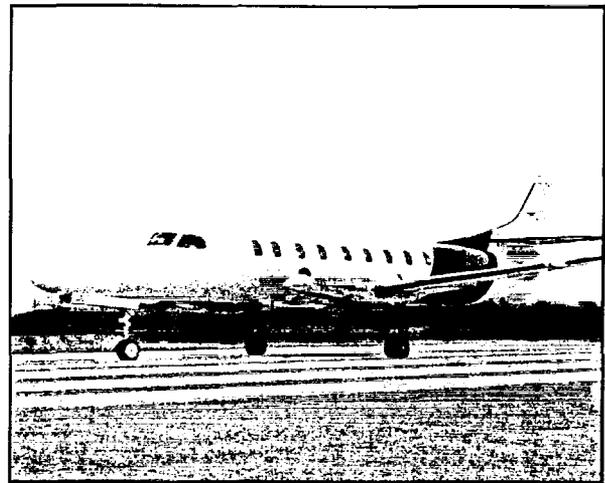
The purpose of this chapter is to develop forecasts that define future aviation demands for Baxter County Regional Airport. These forecasts will serve as the basis for planning the aviation facilities required to meet the Baxter County area aviation needs over the next twenty years.

The forecasts will be applied to several phases of the Master Plan. Initially, they will be used to analyze the future needs of the airfield and landside facilities. Later in the planning process, they will be used in the evaluation of the financial feasibility of proposed development actions, and the cash flow analysis for the financial plan.

Forecasting any type of future activity is as much an art as it is a science. Regardless of the methodology used, assumptions must be made about how

activities might change in the future. The objective of the forecast process is to develop estimates of the degree of these changes so that their impacts may be determined. Plans and preparations may then be made to accommodate them smoothly and cost-effectively. The primary point to remember about forecasts is that they serve only as guidelines for facility and financial planning.

Aviation activity is affected by many external influences, as well as by the aircraft and facilities available. The spectrum of change since the first powered flight is almost beyond comprehension, as aviation has become the most dynamic form of transportation in the world. Because it is dynamic, changes and major technological breakthroughs have resulted in erratic growth patterns. More recently, regulatory and economic actions have created very significant



impacts upon activity patterns at most airports.

The following sections will discuss the historic trends in aviation both locally and on a national level. These trends will be examined along with outside influences that may affect future trends to develop the rationale for the selection of planning forecasts.

NATIONAL GENERAL AVIATION TRENDS

Each year, the Federal Aviation Administration (FAA) publishes its national aviation forecast. Included in this publication are forecasts for air carriers, regional/commuters, general aviation, military, and FAA workloads. The forecasts are prepared to meet budget and planning needs of the constituent units of the FAA and to provide information that can be used by state and local authorities, the aviation industry, and by the general public. The current edition when this chapter was prepared was *FAA Aviation Forecasts - Fiscal Years 1997-2008*. The forecast uses the economic performance of the United States as an indicator of future aviation industry growth. Similar economic analyses are applied to the outlook for aviation growth in international markets.

For the U.S. aviation industry, the outlook for the next twelve years is for moderate economic growth, declining real fuel prices, and modest inflation. Based on these assumptions, aviation activity by fiscal year 2008 is forecast to increase by 17.0 percent at combined FAA and contract towered airports and

24.6 percent at air route traffic control centers. The general aviation active fleet is projected to increase by almost 8.4 percent while general aviation hours flown are forecast to increase by 12.9 percent.

GENERAL AVIATION

The general aviation industry is an important contributor to the nation's economy. General aviation (GA) includes the production and sale of aircraft, avionics and other equipment, along with the provision of support services such as flight schools, fixed base operators, finance and insurance. Following more than a decade of decline, many statistical measures for general aviation have been generally positive over the past two years.

In 1996, general aviation completed its second year of operations following the passage of the General Aviation Revitalization Act of 1994 (federal legislation which limits the liability on general aviation aircraft to 18 years from the date of manufacture). This legislation sparked an interest to renew the manufacturing of general aviation aircraft due to the reduction in product liability and a renewed optimism for the industry. The high cost of product liability insurance was a major factor in the decisions by many American aircraft manufacturers to slow or discontinue the production of general aviation aircraft.

In 1996, general aviation aircraft shipments were up 9.4 percent following a 12.9 percent increase in 1995. Piston-engine aircraft shipments were up 4.3

percent and turboprop shipments were up 21.8 percent. Billings for general aviation aircraft were down; however, this decline reflects the change in the mix of aircraft shipments which includes increasing numbers of lower-priced piston powered aircraft. The amateur-built aircraft market continues to show steady growth, just as it has over the past 25 years.

Despite a small decline in the number of active pilots, student pilot starts were up 5.0 percent, the first increase since 1990. These student pilots are the future of general aviation and are one of the key factors impacting the future direction of the general aviation industry. This increase, combined with the increases in piston-powered aircraft shipments and aircraft production, are a signal that many of the industry initiated programs to revitalize general aviation may be taking hold.

The most notable trend in general aviation is the continued strong use of general aviation aircraft for business and corporate uses. In 1995 (the latest year of recorded data), the number of hours flown by the combined use categories of business and corporate flying represented 24.7 percent of total general aviation activity increasing from 23.3 percent of total general aviation activity in 1994. In 1990, the number of hours flown by the combined use categories of business and corporate flying represented 21.8 percent of total general aviation activity.

Exhibit 2A depicts the FAA forecast for active general aviation aircraft in the United States. The FAA forecasts general aviation active aircraft to

increase at an average annual rate of 0.8 percent over the next 12 years, increasing from 181,341 in 1996 to 196,600 in 2008. Over the forecast period, the active fleet is expected to increase by almost 1,300 annually considering approximately 2,000 annual retirements of older piston aircraft and new aircraft production at 3,000 to 4,000 annually. Turbine-powered aircraft are projected to grow faster than all other segments of the national fleet and grow 1.3 percent annually through the year 2008. This includes the number of turboprop aircraft growing from 4,530 in 1996 to 5,200 in 2008 and the number of turbojet aircraft increasing from 4,577 in 1996 to 5,400 in 2008. Amateur built aircraft are projected to increase at an average annual rate of 1.0 percent over the next twelve years, increasing from 16,382 in 1996 to 18,400 in 2008.

FORECASTING APPROACH

The development of aviation demand forecasts proceeds through both analytical and judgmental processes. Past trends in activity are normally examined in order to give an indication of what may be expected in the future. However, the judgement of the forecast analyst, based upon professional experience, knowledge of the aviation industry, and the local situation is important in the final subjective determination of the preferred forecast.

The assessment of historic trends requires the collection of data on aviation indicators at both the local and

national level. Among these are purely aviation-related factors such as historical operations and based aircraft as well as more general socioeconomic indicators relating to population, employment, and income. The comparison of relationships between these various indicators provides the initial step in the development of realistic forecasts of aviation demand.

As part of the analytical process, past trends in the various aviation demand elements are extended into the future by a variety of techniques, and with a variety of assumptions. Trend lines developed through the use of various analytical procedures are called projections. After preparing a number of such projections, the analyst is able to identify a range of growth within which the true trend will probably lie.

The second phase of demand forecasting requires experienced professional judgment. At this stage a number of intangible factors must be considered, including potential changes in the business climate, pertinent state of the art advances in aviation, the impact of new facilities to induce growth, and the planning policies and objectives of the airport owner.

Since so many factors can play a part in the direction that future demand may take, it must be remembered that a forecast is still only a general prediction of what can be anticipated to occur. Therefore, long-range planning must build in some flexibility to respond to actual activity.

For instance, should a forecast prove conservative, enough flexibility should

be provided in the plan so that facilities do not become greatly overcrowded within the planning period. On the other hand, should a forecast prove to be overly optimistic, facilities should not become an economic burden to the airport because of revenue shortfalls. Year-to-year variation from the preferred forecast should be expected and anticipated. Long-term commitments (such as revenue bonding) should not be made on short-term upturns in activity when historical activity generally indicates these cycles are moderated by subsequent declines in activity. Similarly, short-term downturns should not be taken to mean that activity will not eventually rebound.

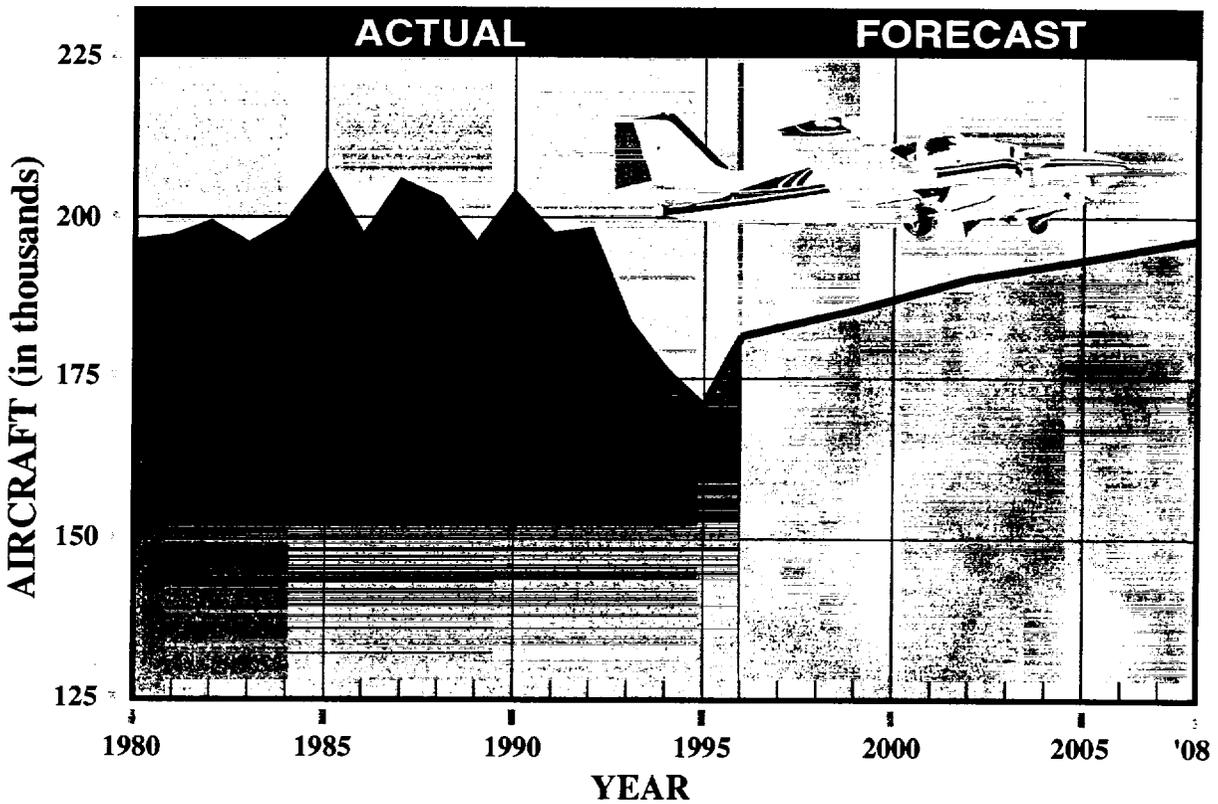
Technological advances in aviation can substantially alter the growth rates in aviation demand. The most obvious example is the impact of jet aircraft on the aviation industry, which resulted in a growth rate that far exceeded expectations. Such changes are difficult, if not impossible to predict, and there is simply no mathematical way to estimate their impacts.

SELECTION OF FORECAST MODELS

The most reliable approach to estimating aviation demand is through the utilization of more than one analytical technique. Methodologies frequently considered include: trend line projection, regression analysis, and market share analysis.

Trend line projection is probably the simplest and most familiar of

ACTIVE GENERAL AVIATION AIRCRAFT



U.S. ACTIVE GENERAL AVIATION AIRCRAFT (in thousands)

As of January 1	FIXED WING				ROTORCRAFT				Total
	Piston	TURBINE		Piston	Turbine	Experimental	Other		
		Multi-Engine	Turboprop					Turbojet	
1996	128.8	16.6	4.5	4.6	1.5	3.6	16.4	5.3	181.3
1999	132.0	16.8	4.6	4.8	1.4	3.6	17.0	5.4	185.6
2002	135.4	17.0	4.8	5.0	1.4	3.6	17.5	5.6	190.3
2005	137.4	17.2	5.0	5.2	1.3	3.6	18.0	5.7	193.4
2008	139.5	17.4	5.2	5.4	1.2	3.6	18.4	5.9	196.6

Source: FAA Aviation Forecasts, Fiscal Years 1997-2008.

Notes: Detail may not add to total because of independent rounding. An active aircraft must have a current registration and it must have been flown at least one hour during the previous calendar year.



forecasting techniques. By fitting classical growth curves to historical demand data, then extending them into the future, a basic trend line projection is produced. A basic assumption of this technique is that outside factors will continue to affect aviation demand in much the same manner as in the past. As broad as this assumption may be, the trend line projection does serve as a reliable benchmark for comparing other projections.

Correlation analysis provides a measure of the direct relationship between two separate sets of historic data. Should there be a reasonable correlation between the data sets, further evaluation using regression analysis may be employed.

In regression analysis, values for the aviation demand element in question, the dependent variable, are projected on the basis of one or more other indicators, the independent variables. Historical values for all variables are analyzed to determine the relationship between the independent and dependent variables. These relationships may then be used, with projected values of the independent variable(s), to project corresponding values of the dependent variable.

Market share analysis involves a historical review of the activity at an airport or airport system as a percentage share of a larger statewide or national aviation market. Trend analysis of this historical share of the market is followed by projection of the share into the future. These shares are then multiplied by forecasts of the activity within the larger geographical

area to produce a market share projection. This method has the same limitations as trend line projections, and similarly can provide a useful check on the validity of other forecasting techniques.

The above methods assume that the factors will continue to affect future aviation demand in much the same manner as they have in the past. As broad as this assumption is, such a method serves as a reliable benchmark against which other projections may be compared.

Using population data and other socioeconomic information available for the Baxter County area, forecasts are developed in the following sections for several aviation categories, including:

- ▶ Commercial Service Activity, including enplaned passengers and operations
- ▶ General Aviation Activity, including based aircraft and operations
- ▶ Peaking Characteristics

The demand forecasts will provide the basis for determining aviation facilities development through the year 2017.

AIRPORT SERVICE AREA

The initial step in determining aviation demand for an airport is to define its generalized service area for the various segments of aviation the airport can accommodate. The airport service area is determined primarily by evaluating

the location of competing airports, their capabilities and services, and their relative attraction or convenience. With this information, a determination can be made as to how much aviation demand would likely be accommodated by a specific airport. It should be recognized that aviation demand does not necessarily conform to political or geographical boundaries.

In determining the aviation demand for Baxter County Regional Airport, it is necessary to identify the role of the airport as well as the specific areas of aviation demand the airport is intended to serve. The role of the airport has been to serve commuter and general aviation demand. The location of the airport with respect to the population centers of north central Arkansas and south central Missouri, as well as the facilities available at the airport indicate that Baxter County Regional Airport may continue to serve commuter service demand in the region as long as a consistent and reliable service is provided.

The commercial service area includes Baxter, Fulton, Izard, Marion, Sharp and Stone Counties in Arkansas, and Howell, Oregon and Ripley Counties in Missouri. The nearest commercial airline service in Arkansas is available at Harrison, located approximately fifty miles west. In Missouri, the closest commercial service is Springfield, 125 miles northwest. The closest airport served by major airlines to the south is Little Rock. Despite being located 125 miles south, Little Rock still has a significant effect on the Baxter county air service market. In addition, a new airport being constructed in Northwest

Arkansas has the potential of limiting future commercial service potential at Baxter County.

The airport service area is basically an area where there is a potential market for airport services. As in any business enterprise, the more attractive the facility is in services and capabilities, the more competitive it will be in the market. If the level of attractiveness expands in relation to nearby airports, so will the service area.

The general aviation service area is somewhat smaller, as several surrounding smaller communities have general aviation airports. Therefore, the service area for small propeller aircraft is essentially Baxter County.

AIRLINE ACTIVITY

Airline activity at Baxter County Regional Airport consists of regional (commuter) airline service. Lone Star Airlines (now doing business as Aspen Mountain Air) began serving the airport in October of 1989 with service to St. Louis. In February of 1991, Lone Star expanded service with flights to Hot Springs, Arkansas with continuing service to Dallas-Ft. Worth Airport. With loss of their operating subsidy, service was reduced from seven to two flights, then adjusted to four daily flights (two each to St. Louis and Dallas-Ft. Worth) in October 1997.

To determine the type and size of facilities necessary to accommodate airline activity at any airport, several elements of this activity must be

forecasted. These forecast elements include:

- ▶ Annual Enplaned Passengers
- ▶ Annual Aircraft Operations

Of these, annual enplaned passengers is the most basic indicator of the demand for airline activity. By developing a forecast of annual enplanements, each of the other elements can be projected based on factors characteristic of Baxter County Regional Airport. The technical development of the airline activity forecasts are presented in the following sections.

ENPLANEMENT FORECASTS

Enplaning passengers are those who board and depart in commercial service aircraft from the airport. Market share is based on local enplanements as compared to domestic enplanements for the United States. Passenger enplanements are displayed in **Table 2A**. The enplanement levels were up in late 1997 with the addition of two flights.

TABLE 2A				
Enplaned Passengers				
Baxter County Regional Airport				
Year	Baxter County Regional Airport	Percent Change	United States Commuter Enplanements 48 States (Thousands)	Market Share
ENPLANEMENTS				
1990	3,228	—	35,500	.0091%
1991	4,857	50.5	37,000	.0131%
1992	6,159	26.8	41,100	.0150%
1993	6,002	-2.5	45,100	.0133%
1994	5,533	-7.8	51,500	.0107%
1995	5,308	-4.0	51,100	.0104%
1996	2,997	-43.5	55,200	.0054%

The ability of local air service to maintain or recapture a share of the local market will drive enplanement levels in the future at Baxter County Regional Airport. For this reason a forecast envelope was developed for use in planning.

The more conservative scenario assumes that Baxter County Regional Airport will maintain its 1996 national market share of .0054 percent throughout the forecast period. According to *FAA Aviation Forecasts-Fiscal Years 1997-2008*, passenger

enplanements in the continental United States by regional/commuter airlines are forecast to increase 5.4 percent annually (the growth rate for this particular scenario).

A more optimistic scenario assumes that Baxter County Regional is able to re-capture market share experienced several years ago. This scenario assumes that Baxter County Regional Airport will attain a .015 percent market share midway through the forecast period, and maintain this share

through the forecast period. This represents an annual average growth rate of 11.2 percent throughout the period.

The scenarios and comparisons are depicted in **Table 2B** and **Exhibit 2B**. The preferred forecast for planning is the increasing market share projection, which reflects a conservative short-term and optimistic long-term projection. Actual enplanement levels will be sensitive to local service, airfares, and competition from surrounding airports.

Year	Low Market Share	FAA TAF	State System Plan	Re-Capture Local Market (Preferred)
2002	4,250	10,300	14,500	7,900
2007	5,370	14,100	21,200	14,900
2017	9,080	29,700	33,800	25,200

AIRLINE OPERATIONS

In addition to passenger enplanements, several other factors affect forecasts of airline operations. The number of operations can be determined from the average ratio of passenger enplanements per departure. However, this ratio is dependent upon the size of the aircraft and the average percentage of seats that are filled for each departure. This percentage of enplanements to aircraft seats is called the boarding load factor (BLF). The boarding load factor is important to an airline because it is the basis for the ability to profit from a given market. When the load factor is low, an airline will generally cut back the number of aircraft seats into the market by either

reducing the number of flights or by using smaller aircraft. Similarly, when the load factor is profitable, an airline will begin to consider increasing the number of seats by increasing the number of flights or the size of its aircraft.

Lone Star introduced service to Baxter County with twin-engine, turboprop Beechcraft Airliner 99's. These are seventeen passenger, non-pressurized aircraft. In July of 1991 Lone Star began flying larger Swearingen Metroliners, which are pressurized, nineteen seat aircraft.

Based on published schedules, Aspen Mountain Air currently provides four flights daily during the week, and two

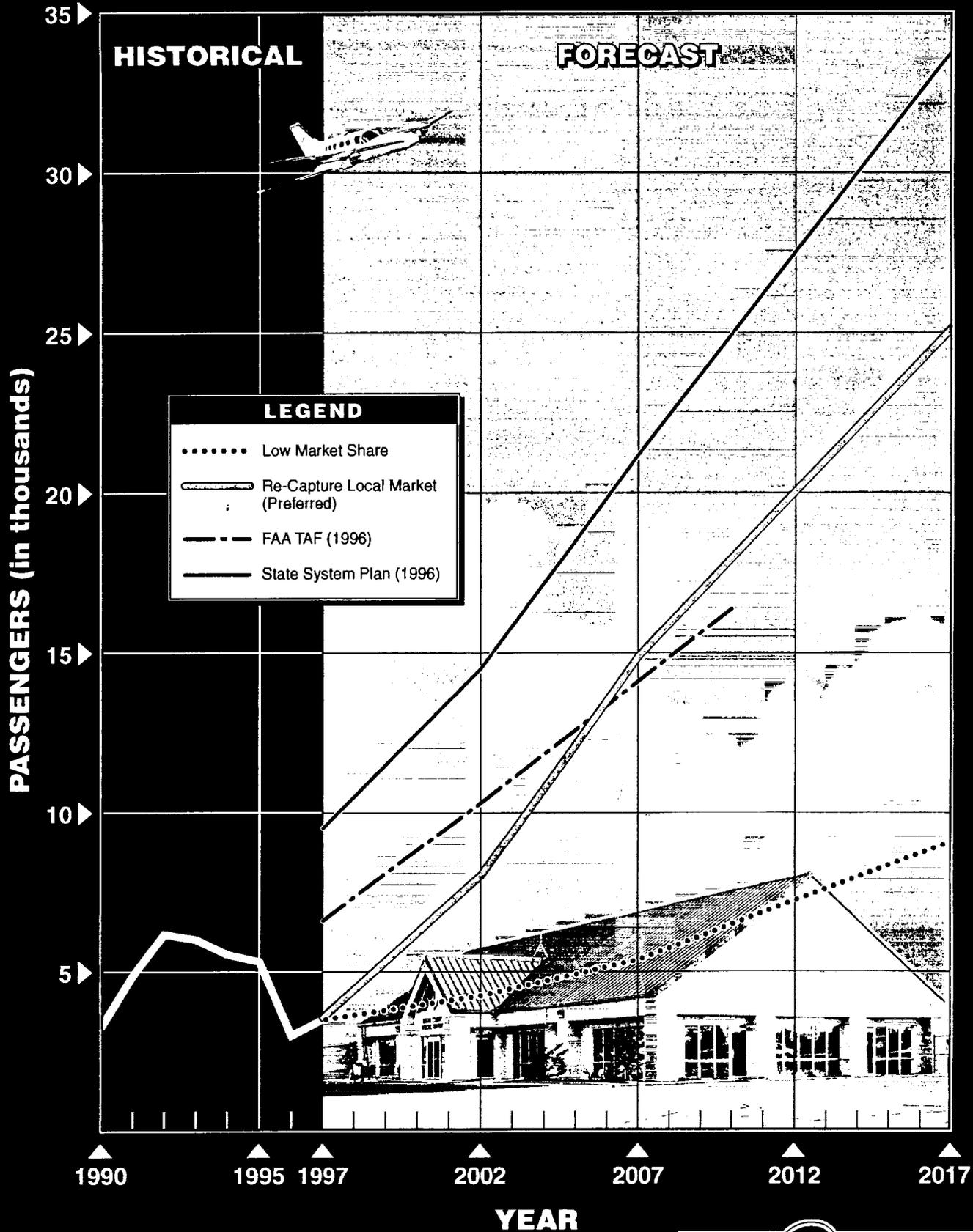


Exhibit 2B
PASSENGER ENPLANEMENT FORECASTS

daily on the weekend. This results in approximately 1,248 departures yearly. Given that all of these are made with nineteen seat aircraft, there will be approximately 23,700 available seats. Historically, load factors have been in the 20-25 percent range. This is expected to increase through the period.

Based upon the enplanements forecast it is likely the number of departures from Baxter (as well as the BLF) will increase. Once enplanements increase, it can be anticipated that a transition to larger aircraft will occur. **Table 2C** summarizes the commercial operations forecast based on seating capacities and passenger demand.

Seating Range	2002	2007	2017
< 20	80%	70%	50%
20-50	20%	30%	50%
Seats Per Departure	22	24	27
Boarding Load Factor	.25	.30	.40
Enplanements Per Departure	5.5	7.2	10.8
Annual Enplanements	7,900	14,900	25,200
Annual Departures	1,440	2,070	2,330
Annual Operations	2,880	4,140	4,660

GENERAL AVIATION ACTIVITY

General aviation activity comprises the vast majority of aircraft operations at Baxter County Regional Airport. General aviation is defined as that portion of civil aviation which encompasses all facets of aviation except commercial airline operations. To determine the types of facilities that should be planned to accommodate general aviation activity, certain elements of this activity must be forecast. These indicators of general aviation demand include:

- ▶ Based Aircraft
- ▶ Aircraft Fleet Mix
- ▶ Annual Aircraft Operations

The number of based aircraft is the most basic indicator of general aviation demand. By first developing a forecast of based aircraft, the growth of the other indicators can be projected based upon this growth and other factors characteristic of the Baxter County Regional Airport and the area it serves. The rationale behind the general aviation activity forecasts is presented below.

BASED AIRCRAFT

The single most important factor in the development of general aviation activity forecasts is the number of based aircraft. Presently, the number of based aircraft at Baxter County Regional Airport is 50. This is an

increase of eleven aircraft since the last master plan was completed. Since actual basing levels have exceeded the original forecasts, updated figures for active aircraft in the county and region were obtained and new projections were developed. These new projections have been summarized in **Table 2D**.

Year	Aircraft Registered in S.W. Region	Baxter County Registered Aircraft	County Market Share %	BPK Based Aircraft	% of County Registered Aircraft
1992	26,500	48	.181	39	81.3
1997	25,100	71	.283	50	70.4
<i>Forecast</i>					
2002	26,400	84	.35	59	70
2012	28,300	100	.35	70	70
2017	29,700	120	.40	84	70

BASED AIRCRAFT FLEET MIX

The general aviation aircraft fleet mix expected to use the airport must be known in order to properly size airport facilities. The existing mix of based aircraft was compared to existing and forecast U.S. fleet trends and a projection was developed for the airport's mix. *FAA Aviation Forecasts-Fiscal Years 1997-2008* projects that the number of active general aviation aircraft will increase, with larger, more sophisticated aircraft. The resulting fleet mix forecast for Baxter County Regional Airport is presented in **Table 2E**.

AIRCRAFT OPERATIONS

An airport operation is defined as any takeoff or landing performed by an aircraft. There are two types of operations - local and itinerant. A local operation is a takeoff or landing performed by an aircraft that will operate in the local traffic pattern within sight of the airport, or which will execute simulated approaches or touch-and-go operations at the airport. Itinerant operations include all arrivals and departures other than local. Generally, local operations are characterized as training operations, while itinerant operations are those

aircraft with a specific destination away from the airport. Typically, itinerant operations increase with business and

industry use since business aircraft are used primarily to carry people from one location to another.

TABLE 2E
Based Aircraft Fleet Mix
Baxter County Regional Airport

Year	Piston		Turbine		Rotorcraft	Other*	Total
	Single	Twin	Turboprop	Turbofan			
<i>Actual</i>							
1992	33	4	1	0	1	—	39
1997	36	7	0	1	4	2	50
<i>Forecast</i>							
2002	39	8	2	2	5	3	59
2007	43	10	4	3	6	4	70
2017	48	12	6	4	8	6	84

* Includes experimental and ultralight aircraft.

Aircraft operations have not been accurately counted at Baxter County Regional Airport because of the lack of an air traffic control tower. The State Airport System Plan estimated annual general aviation operations at Baxter County Regional Airport at 33,400, while other sources have estimated activity at levels exceeding 50,000. The

State System Plan was judged to be a reliable estimate for this analysis.

Table 2F presents the general aviation operations forecasts for Baxter County Regional Airport, assuming an increase in the operations per based aircraft ratio. Local operations are assumed at 50 percent of the total.

TABLE 2F
General Aviation Operations Forecast

	Current	2002	2007	2017
Based Aircraft	50	59	70	84
Operations Per Based Aircraft Ratio	668	675	700	750
Annual Operations	33,400	39,800	49,000	63,000

MILITARY ACTIVITY

Military operations comprise a small portion of the operations at Baxter County Regional Airport. While activity is dependent upon future requirements of the Department of Defense (DOD), there is no indication that operations at Baxter County Regional Airport will change dramatically in the future. Therefore, military operations were forecast at 1,000 annually, although this level may fluctuate considerably from year to year.

PEAKING CHARACTERISTICS

Many airport facility needs are related to the levels of activity during peak periods. The periods that will be used in developing facility requirements for this Master Plan include peak month, average day of the peak month (design day), busy day, and design hour operations. These are described as follows:

- ▶ Peak Month - The calendar month when peak aircraft operations occur.
- ▶ Design Day - Defined as the average day within the peak month. This indicator is easily derived by dividing the peak month operations by the number of days in the month.
- ▶ Busy Day - Defined as the busy day of a typical week in the peak month. This descriptor is used primarily for planning general aviation ramp space.
- ▶ Design Hour - Defined as the peak hour within the peak day. This descriptor is used particularly in airfield demand/capacity analysis, as well as for terminal building and access road requirements.

It is important to note that only the peak month is an absolute peak within a given year. All the others will be exceeded at various times during the year. However, they do represent reasonable planning standards that can be applied without overbuilding or being too restrictive.

COMMERCIAL SERVICE

At Baxter County Regional Airport, the peak month for enplanements has been projected at 12.0 percent of the annual enplanements. This trend can be expected to remain relatively constant over the planning period.

Because the schedule is set at four flights daily, airline operations remain relatively constant from month-to-month. On weekends, flights are reduced to two daily. According to the flight schedule, two flights depart within 15 minutes of each other, creating the peak period. **Table 2G** presents the forecasts for peak period airline operations at Baxter County Regional Airport.

TABLE 2G				
Peak Airline Activity				
Baxter County Regional Airport				
	Current	2002	2007	2017
ENPLANEMENTS				
Annual	Approx. 3,500	7,900	14,900	25,200
Peak Month	420	950	1,790	3,020
Design Day	14	32	60	100
Design Hour	7	16	30	50
OPERATIONS				
Annual	2,500	2,880	4,140	4,660
Peak Month	210	240	345	390
Design Day	8	8	12	13
Design Hour	4	4	6	6

GENERAL AVIATION

Based upon past fuel sales, the peak month for general aviation activity is estimated at 11.0 percent of the annual activity.

Based upon peaking characteristics for general aviation activity at other airports with similar operational levels,

the typical busy day at Baxter County Regional Airport was estimated at 20 percent of the weekly operations (or 40 percent greater than the average daily operations during the peak month). Peak hour operations were estimated at 20 percent of the daily operations. **Table 2H** summarizes the peak operations forecasts for Baxter County Regional Airport.

TABLE 2H				
Peak General Aviation Activity				
Baxter County Regional Airport				
	Current	2002	2007	2017
Annual Operations	33,400	39,800	49,000	63,000
Peak Month	3,700	4,400	5,400	6,900
Busy Day	170	210	250	320
Design Day	120	150	180	230
Design Hour	24	30	36	46

ANNUAL INSTRUMENT APPROACHES

Forecast of annual instrument approaches (AIAs) provide guidance in determining an airport's requirements for navigational aid (NAVAID) facilities. An instrument approach, as defined by the FAA, is an approach to an airport in accordance with an instrument flight rule (IFR) flight plan, when visibility is less than three miles and/or when the ceiling is at or below the minimum initial approach altitude.

AIAs for Baxter County Regional Airport were obtained from the FAA. Typically, 350 to 400 AIAs are recorded each year by general aviation and military aircraft. At untowered airports, the number is generally low since pilots have a tendency to cancel their instrument approach once the field is in sight. This results in the approach not being counted as an AIA. In order

to obtain a more realistic indication as to the potential number of instrument approaches, towered airports in the area were studied. The percentage of total approaches which involved instrument approaches was 4.5 percent, which was applied to operations projections at Baxter County Regional Airport.

FORECAST SUMMARY

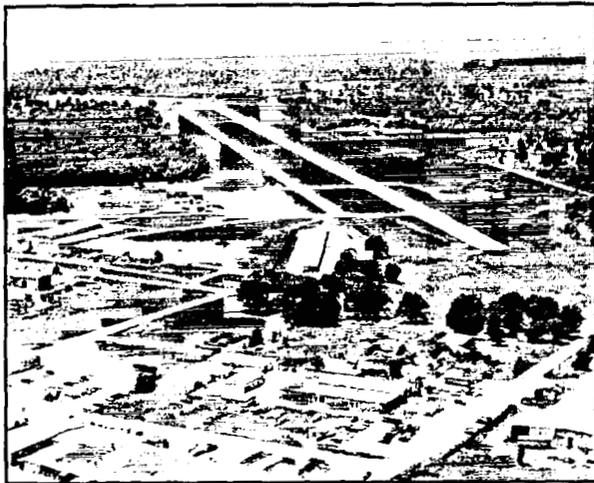
This chapter has determined the various aviation demand levels to be anticipated over the planning period. The next step in the master planning process is to assess the capacity of the existing airport facilities and determine the facilities that will be necessary to meet the projected demand. This will be examined in detail in the following chapter. **Table 2J** provides a summary of the aviation forecasts for Baxter County Regional Airport.

	Current	2002	2007	2017
Annual Operations				
General Aviation				
Itinerant	16,700	19,900	24,500	31,500
Local	<u>16,700</u>	<u>19,900</u>	<u>24,500</u>	<u>31,500</u>
Total General Aviation	33,400	39,800	49,000	63,000
Airline	2,500	2,880		
Military	1,000	1,000		
Total Operations	36,900	43,680	54,140	68,660
Annual Enplanements	Approx. 3,500	7,900	14,900	25,200
Based Aircraft	50	59	70	84
Annual Instrument Approaches	350-400	980	1,220	1,540



Chapter Three
FACILITY REQUIREMENTS

FACILITY REQUIREMENTS



To properly plan for the future of Baxter County Regional Airport, it is necessary to translate forecast aviation demand into the specific types and quantities of facilities that can adequately serve this identified demand. This chapter uses the results of the forecast analysis conducted in Chapter Two, as well as established planning criteria, to determine the airfield (i.e., runways, taxiways, navigational aids, marking and lighting), and landside (i.e., hangars, terminal building, aircraft parking apron, fueling, automobile parking and access) facility requirements.

The objective of this effort is to identify, in general terms, the adequacy of the existing airport facilities, outline what new facilities may be needed, and when these may be needed to accommodate forecast demands. Having established these facility requirements, alternatives for providing these facilities will be eval-

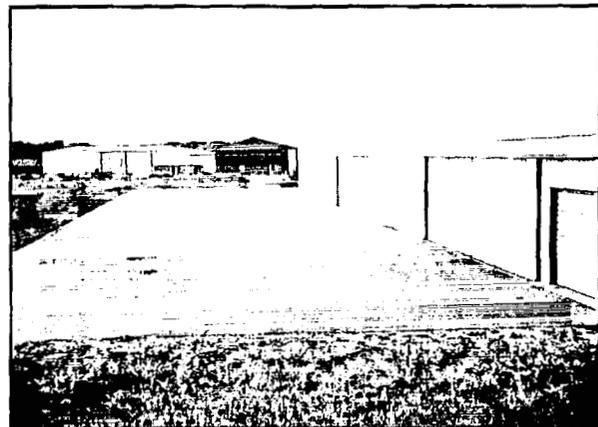
uated in Chapter Four to determine the most cost-effective and efficient means for implementation.

AIRFIELD REQUIREMENTS

Airfield requirements include the needs for those facilities related to the arrival and departure of aircraft. These facilities are comprised of the following items:

- Runways
- Taxiways
- Airfield Marking and Lighting
- Navigational Aids

The selection of the appropriate FAA design standards for the development of the airfield facilities is based primarily upon the characteristics of the aircraft which are expected to use the airport. The most critical characteristics are the **approach speed** and the size of the **critical design aircraft** anticipated to



use the airport now or in the future. The planning for future aircraft use is particularly important because design standards are used to plan separation distances between facilities that could be extremely costly to relocate at a later date.

The Federal Aviation Administration has established criteria for use in the sizing and design of airfield facilities. These standards include criteria relating to the size of an aircraft as well as the performance and speed of an aircraft. According to Federal Aviation Administration *Advisory Circular (AC) 150/5300-13, Airport Design*, incorporating changes one, two, and three, an aircraft's approach category is based upon 1.3 times its stall speed in landing configuration at the particular aircraft's maximum certificated weight. The five approach categories used in airport planning are as follows:

Category A: Speed less than 91 knots.

Category B: Speed 91 knots or more, but less than 121 knots.

Category C: Speed 121 knots or more, but less than 141 knots.

Category D: Speed 141 knots or more, but less than 166 knots.

Category E: Speed 166 knots or more.

The second basic design criteria relates to the size of an airplane. The Airplane Design Group (**ADG**) is based upon wingspan. The six groups are as follows:

Group I: Up to but not including 49 feet.

Group II: 49 feet up to but not including 79 feet.

Group III: 79 feet up to but not including 118 feet.

Group IV: 118 feet up to but not including 171 feet.

Group V: 171 feet up to but not including 214 feet.

Group VI: 214 feet up to but not including 262 feet.

FAAAC 150/5300-13, *Airport Design*, identifies a coding system which is used to relate airport design criteria to the operational and physical characteristics of the airplanes intended to operate at the airport. This code, called the Airport Reference Code (ARC), has two components: the first component, depicted by a letter, is the aircraft approach category and relates to aircraft approach speed (operational characteristic); the second component, depicted by a Roman numeral, is the airplane design group and relates to airplane wingspan (physical characteristic). Generally, aircraft approach speed applies to runways and runway-related facilities, while airplane wingspan primarily relates to separation criteria involving taxiways and taxilanes. In order to determine facility requirements for the design of an airport, the ARC should first be determined, and then the airport design criteria as contained within FAA AC 150/5300-13 can be applied.

The FAA advises designing all airport elements to meet the requirements of the most demanding aircraft using the

airport now, or in the future. Currently, the critical aircraft operating at Baxter County Regional Airport are business jets, which are typically included in ARC B-II or C-II. Based upon forecasts, there will be an increase in the number of business jets operating at Baxter County Regional Airport. Therefore, the airport should plan for ARC C-II requirements.

The airfield facility requirements outlined in this chapter correspond to the design standards described in FAA's *AC 150/5300-13, Airport Design*. The following airfield facilities are outlined to describe the scope of facilities that would be necessary to accommodate the airport's role throughout the planning period.

RUNWAYS

The adequacy of the existing runway system at Baxter County Regional Airport has been analyzed from a number of perspectives, including runway orientation, airfield capacity, runway length, and pavement strength. From this information, requirements for runway improvements were determined for the airport.

Airfield Capacity

A demand/capacity analysis measures the capacity of the airfield facilities (i.e. runways and taxiways) in order to identify and plan for additional development needs. The capacity of the airport's runway system to meet future operational demand can be determined without detailed analysis. Annual capacity of a single runway configuration normally exceeds 150,000

operations with a suitable parallel taxiway available.

Since the forecasts for Baxter County Regional Airport indicate the activity throughout the planning period will remain well below 100,000 operations, the capacity of the existing runway-taxiway system will not be reached, and the airfield can meet operational demands. Therefore, the facility requirements analysis will concentrate on developing the appropriate facilities to improve safety and service considerations rather than demand variations.

Runway Orientation

The airport's only Runway, 5-23, is 5,001 feet long, oriented in a northeast-southwest direction with a pavement strength rating of 17,000 pounds single wheel loading (SWL) and a runway gradient of 0.19 percent.

Ideally, the primary runway at an airport should be oriented as close as practical in the direction of the predominant winds to maximize the runway's usage. This minimizes the percent of time that a crosswind could make the preferred runway inoperable.

FAA *AC 150/5300-13, Airport Design* recommends that a crosswind runway should be made available when the primary runway orientation provides less than 95 percent wind coverage for any aircraft forecast to use the airport on a regular basis. The 95 percent wind coverage is computed on the basis of the crosswind component not exceeding 10.5 knots (12 mph) for Airport Reference Codes A-I and B-I; 13 knots (15 mph) for ARC A-II and B-II; and 16 knots (18

mph) for ARC A-III, B-III, and C-I through D-III.

Since wind data is not available at Baxter County Regional Airport, data from Harrison, Arkansas was used for the wind analysis. The data was collected for a ten-year period (1987 through 1996). Wind coverage summaries for all-weather and instrument conditions are depicted on **Exhibit 3A**. Runway 5-23 provides 86.9 percent coverage for 10.5 knot crosswinds, 92.7 percent at 13 knots, and 98.2 percent coverage at 16 knots under all-weather conditions. The alternatives analysis should consider the feasibility of a crosswind runway since the existing alignment fails to provide adequate coverage.

Runway Length

The determination of runway length requirements for the airport are based on five primary factors:

- ▶ Critical aircraft type expected to use the airport.
- ▶ Stage length of the longest nonstop trip destinations.
- ▶ Mean maximum daily temperature of the hottest month.
- ▶ Runway gradient.
- ▶ Airport elevation.

An analysis of the existing and future fleet mix indicates that business jets will be the most demanding aircraft on runway length at Baxter County Regional Airport. The largest commuter aircraft likely to serve the

airport will be in the 35-50 passenger range. Baxter County Regional Airport is expected to continue to support short-haul commuter markets with the longest stage length expected to be within 500 miles. Destinations within 500 miles include St. Louis and Dallas.

Aircraft operating characteristics are affected by three primary factors. They are the mean maximum temperature of the hottest month, the airport's elevation, and the gradient of the runway. The mean maximum daily temperature of the hottest month for Baxter County is 91.2 degrees Fahrenheit. The airport elevation is 928 feet MSL. Gradient for Runway 5-23 is 0.19 percent.

Table 3A outlines the runway length requirements for various categories of aircraft. The length of Baxter County's runway is 5,001 feet. This is capable of accommodating small airplanes. This will not, however, be adequate to accommodate small jets or commuter aircraft larger than the Metroliners currently serving Baxter County.

One hundred percent of aircraft operating at 60 percent of useful load would require 5,850 feet of runway (highlighted in table). A typical business jet operating from the airport, such as the Citation II, will require 5,500 feet for departure under maximum takeoff weight at 91.2 degrees F. Therefore, consideration should be given to provided 5,500 feet of runway for future conditions.

An additional consideration is the runway available for landing or takeoff in accordance with the declared

distances standards of Appendix 14, FAA AC 150/ 5300-13, *Airport Design*. For runways serving Category C and D aircraft, FAA design standards require a 1,000 foot graded safety area off the end of the runway. When

the full 1,000 feet of safety area is not available, then the declared distances of the runway must be reduced accordingly. If the runway is to be upgraded, safety areas at each end would need to be extended and widened.

TABLE 3A	
Runway Length Requirements	
Baxter County Regional Airport	
AIRPORT AND RUNWAY DATA	
Airport elevation	928 feet
Mean daily maximum temperature of the hottest month	91.20 F
Maximum difference in runway centerline elevation	10 feet
Length of haul for airplanes of more than 60,000 pounds	500 miles
Dry runways	
RUNWAY LENGTHS RECOMMENDED FOR AIRPORT DESIGN	
Small airplanes with approach speeds of less than 30 knots	330 feet
Small airplanes with approach speeds of less than 50 knots	870 feet
Small airplanes with less than 10 passenger seats	
75 percent of these small airplanes	2,840 feet
95 percent of these small airplanes	3,370 feet
100 percent of these small airplanes	4,000 feet
Small airplanes with 10 or more passenger seats	4,460 feet
Large airplanes of 60,000 pounds or less	
75 percent of these large airplanes at 60 percent useful load	4,930 feet
75 percent of these large airplanes at 90 percent useful load	6,960 feet
100 percent of these large airplanes at 60 percent	
useful load	5,850 feet
100 percent of these large airplanes at 90 percent useful load	8,940 feet
Airplanes of more than 60,000 pounds	Approximately 5,340 feet
Reference: Chapter 2 of AC 150/5325-4A, <i>Runway Length Requirements for Airport Design</i> , no changes included.	

Runway Width

Runway 5-23 is currently 75 feet wide. According to FAA AC 150/5300-13, *Airport Design*, this is adequate to

accommodate aircraft in ARC B-II. In order to accommodate aircraft in ARC C-II, the runway would need to be widened to 100 feet.

Runway Strength

Runway 5-23 has a pavement strength of 17,000 pounds (SWL), which is adequate for the Metroliners which currently serve the airport. It is also adequate for some of the smaller business jets, such as the Cessna Citation II. However, most of the business jets and the larger commuter aircraft have maximum take-off weights in excess of 17,000 pounds. In order for these large aircraft to operate from Baxter County Regional Airport, the alternatives analysis should consider strengthening the runway to 55,000 pounds SWL (70,000 pounds dual wheel loading).

If a secondary runway is provided, it would be used exclusively by aircraft in ARC B-II and below. According to the recommended runway lengths in **Table 3A**, a 75 foot wide, 5,000 foot long runway would be adequate to serve these aircraft.

TAXIWAYS

Taxiways are constructed primarily to facilitate aircraft movements to and from the runway system. Some taxiways are necessary simply to provide access between the aprons and runways, whereas other taxiways become necessary as activity increases at an airport to provide safe and efficient use of the airfield.

Runway 5-23 at Baxter County Regional Airport is supported by a full length parallel taxiway with connecting taxiways. These taxiways are all forty feet wide, which, according to FAA AC

150/5300-13, *Airport Design*, is adequate width for aircraft in design group II and below.

Runway-taxiway separation standards vary by both ARC and the type of runway approach. The centerline of Taxiway A is 240 feet from the centerline of Runway 5-23. This is adequate separation for aircraft in ARC B-II and below on nonprecision and visual runways.

In order for B-II aircraft to operate from a precision runway, or for C-II aircraft to operate from a nonprecision runway, the required separation is 300 feet. For C-II aircraft to operate from a precision runway, 400 feet of separation is required.

NAVIGATIONAL AIDS AND LIGHTING

Navigational aids provide two primary services to airport operations: precision guidance to a specific runway and/or non-precision guidance to a runway or the airport itself.

With the advent of global positioning system (GPS) navigation, approaches are being defined using visibility minimums which have traditionally been associated with only instrument landing systems. GPS technology is providing airports with the means to gain instrument approach capability at a moderate cost. To effectively utilize GPS in the future, and to lower minimums below those currently available, the FAA recommends the establishment of an omni-directional

approach lighting system or medium intensity approach light system.

GPS approaches are currently available to both runways – providing 600-foot minimums on Runway 5 and 500-foot minimums on Runway 23.

In addition, a nonprecision approach may be made to Runway 5 at Baxter County Regional Airport by use of waypoints established by the Flippin VOR. Once the runway is in sight, vertical guidance is provided by precision approach path indicators (PAPI) located on either end of the runway. Because there is no instrument landing system (ILS), the runway cannot remain open when weather conditions fall below minimums.

With the expected increase in commuter and general aviation operations, Baxter County Regional Airport may be eligible for lower visibility approaches in the future. Therefore, alternatives should consider this possibility. Careful consideration should be given to the alterations of the airfield and structures necessary for the installation and operation of such a system.

Runway identification lighting provides the approach pilot with a rapid and positive identification of the runway and runway end. Currently, threshold lights and medium intensity runway lights (MIRL) are available. All taxiways are equipped with a medium intensity lighting system (MITL). Both the runway and taxiway lights are pilot controlled with three intensity settings.

LANDSIDE FACILITIES

Landside facilities are those necessary for handling of aircraft, passengers, and cargo while on the ground. These facilities provide the essential interface between the air and ground transportation modes. These areas will be subdivided into three parts: airline facilities, general aviation facilities, and support facilities. The capacities of the various components of each area were examined in relation to projected demand to identify future landside facility needs.

AIRLINE TERMINAL AREA

The existing airline terminal area facilities were evaluated based on planning guidelines relating to the major functional elements of the terminal area as presented in *AC 150/5360-9, Planning and Design of Airport Terminal Facilities at Non-hub Locations*. The primary areas analyzed include the passenger building, airline gate positions, and terminal apron area.

Passenger Terminal Building

The methodology utilized in the analysis of the passenger terminal building involved the design hour passenger demands and a comparison of these requirements with existing terminal facilities. The analysis indicated that the current facility will adequately handle traffic demands

through the forecast period. However, additional auto parking will need to be provided if traffic projections are realized.

Airline Gate And Apron Area

There is sufficient space to stage three aircraft in front of the facility. However, later in the forecast period, larger equipment is expected to replace Metroliners. Therefore, consideration may need to be given to expanding the apron area as demand warrants.

GENERAL AVIATION TERMINAL FACILITIES

The purpose of this section is to determine the space requirements during the planning period for the following types of facilities normally associated with general aviation terminal areas:

- ▶ Hangars
- ▶ Aircraft Parking Apron
- ▶ General Aviation Terminal

Hangars

The space required for hangar facilities is dependent upon the number and type of aircraft to be based at the airport. Hangar requirements for the airport were based upon an analysis of the general aviation facilities and the current demand at Baxter County Regional Airport. Percentages representing hangar requirements for various types of general aviation aircraft have been calculated. The

analysis assumes that all aircraft based at the airport should have the opportunity to be hangared.

General aviation airports have been experiencing an increasing trend toward T-hangars. Not only are T-hangars less expensive to construct, they provide the aircraft owner more privacy and greater ease in obtaining access to their aircraft. The principal uses of conventional hangars at general aviation airports are for large aircraft storage, storage during maintenance, and for housing fixed based operation-related activities. On this basis, it has been assumed that all turbine and rotary aircraft and 10 percent of the other based aircraft requiring hangars would be hangared in conventional hangars. An area equal to ten percent of the total conventional hangar space on the airport should be allocated for maintenance shop facilities. It is assumed that this maintenance area is housed in conventional hangars. The remaining aircraft requiring hangar space will be allocated to T-hangars.

The final step in the planning process of determining hangar requirements involves estimating the area necessary to accommodate the required hangar space. A planning standard of 1,200 square feet per based aircraft stored in T-hangars was used. Planning figures for conventional hangars indicate an area of 1,200 square feet for single engine and rotary aircraft, 2,000 square feet for twin engine piston aircraft and 2,500 square feet for turbine powered aircraft. These planning figures were then applied to the aircraft to be hangared in conventional and T-hangars to determine the area to be

devoted to hangar facility requirements through the planning period. The hangar needs are presented in **Table 3B**. As the data indicate, conventional hangar space is adequate for now, but

will need to be increased during the forecast period. However, T-hangars will be in demand throughout the planning period.

TABLE 3B
Hangar And Hangar Area Requirements
Baxter County Regional Airport

	Available	1997	2002	2007	2017
Based Aircraft		50	59	70	84
Aircraft to be Hangared:					
Single Engine Piston		36	39	43	48
Multi Engine Piston		7	8	10	12
Turboprop		0	2	4	6
Turbofan		1	2	3	4
Rotorcraft/Other		6	8	10	14
Total		50	59	70	84
T-Hangar Positions	28*	40	42	48	54
Conventional Hangar Positions	7-13	10	17	22	30
Conventional Hangar Area (sq. ft.)	18,000	13,300	25,600	35,500	49,000
Aircraft Storage (sq. ft.)	16,200	12,000	23,000	31,900	44,100
Aircraft Maintenance (sq. ft.)	1,800	1,300	2,600	3,600	4,900
T-Hangar Area (sq. ft.)	28,800	48,000	50,400	57,600	64,800

* Includes shade hangars.

Aircraft Parking Apron

A parking apron should be adequate for at least the number of locally-based aircraft that are not stored in hangars, as well as transient aircraft. At the present time, several based aircraft are stored full-time on the ramp, although some aircraft stored in conventional hangars may be moved to the ramp during the day to provide hangar area for aircraft maintenance. In the future,

most based aircraft are expected to be stored in hangars.

FAA AC 150/5300-13 suggests a methodology by which transient apron requirements can be determined from knowledge of busy-day itinerant operations. At Baxter County Regional Airport, the number of itinerant spaces required was determined to be approximately 25 percent of the busy-day itinerant operations. FAA planning

criterion of 670 square yards per aircraft was applied to the number of itinerant spaces to determine future transient apron requirements. The

results of this analysis are presented in **Table 3C**. As the table indicates, the apron area is adequate until the intermediate years of the forecast period.

	Available	1997	2002	2007	2017
Busy Day Itinerant Operations*		85	105	125	160
Aircraft Positions	48	21	26	31	40
Apron Area (s.y.)	21,000	14,000	17,400	20,800	26,800

* 50 percent of total busy day operations.

AVIATION SUPPORT FACILITIES

Various facilities that do not logically fall within classifications of airfield, terminal building, or general aviation facilities have been identified for inclusion in this Master Plan. Facility requirements have been identified for these remaining facilities:

- ▶ Airport Access and Vehicle Parking
- ▶ Airport Rescue and Firefighting Facilities
- ▶ Fuel Storage

AIRPORT ACCESS AND VEHICLE PARKING

Access to Baxter County Regional Airport is available from State Highway 126. This two lane highway (which runs north-south) is joined by Arkansas Highways 5 and 178, and U.S. Highway 62, all of which lead to the county seat of Baxter County, Mountain Home. The

airport terminal access road is a paved drive which leads directly to parking areas at either end of the terminal building. A separate road is located just south of the terminal road and leads directly to the FBO area.

The existing roads to the terminal and FBO will be adequate through the planning period.

Vehicle parking demands have been determined for both the airline and general aviation users using ratios to annual enplanements and operations. Each parking area component is summarized in **Table 3D**. Unpaved areas which are used for public parking are not reflected in the column of "available" spaces.

There are approximately 63 paved parking spaces available on the airport, thirty spaces in the FBO area, and 33 next to the terminal. The need for parking in the future will be dependent upon passenger levels and general

aviation activity. It will also depend upon non-aviation related terminal use (such as the restaurant in the terminal building). It is recommended that

additional parking be provided in the areas adjacent to future hangar development.

	Available	2002	2007	2017
Public Parking				
Airline - Paved	33	53	100	170
General Aviation/Employee	30	50	60	80
Total	63	103	160	250

**AIRPORT RESCUE AND
FIREFIGHTING FACILITIES**

Requirements for airport rescue and firefighting (ARFF) services at airports are established under *Federal Aviation Regulation (F.A.R.) Part 139 - Certification and Operations: Land Airports serving Air Carriers*. This regulation governs airports with scheduled passenger service by aircraft with seating capacities over 30. Baxter County Regional Airport is currently served by aircraft with 19 seats. If long range enplanement potential is realized, the airport will receive service by 30-50 passenger aircraft.

F.A.R. Part 139.49 establishes the ARFF index determination for all airports. "Index A" includes aircraft less than 90 feet in length and would include Baxter County Regional Airport if 30-plus passenger aircraft were introduced. "Index A" requires one vehicle carrying at least the following:

- 1) 500 pounds of sodium-based dry chemical or halon 1211; or

- 2) 450 pound of potassium-based dry chemical and water with a commensurate quantity of Aqueous Film Forming Foam (AFFF) to total 100 gallons for simultaneous dry chemical and AFFF foam application.

The ARFF vehicle would need to be stored in a location that would permit adequate response time to an emergency under requirements of Part 139. Regulations require that at least one vehicle must be capable of reaching the mid-point of the farthest runway within three minutes. The most likely location for storage of an airport response vehicle would be in the fire station manned by the Midway Volunteer Fire District, located on Highway 126.

FUEL STORAGE

The existing fuel storage at Baxter County Regional Airport consists of above-ground storage of 10,000 gallons of Avgas and 10,000 gallons of Jet A.

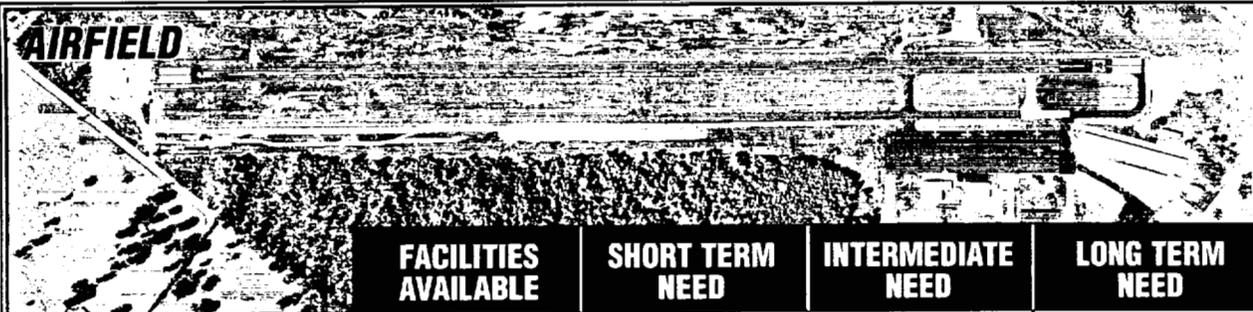
Future requirements will be dictated by peak usage by corporate users and the needs of commuters. Generally, fuel tanks should be of adequate capacity to accept a full refueling tanker (8,000 gallon) while maintaining a reasonable level of fuel in the storage tank.

SUMMARY

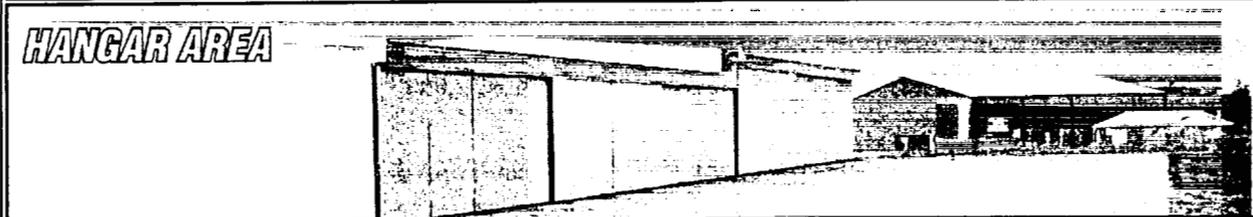
The intent of this chapter has been to outline the facilities required to meet

aviation demands projected for Baxter County Regional Airport through the year 2017. A summary of the facility requirements are presented on **Exhibit 3B**.

Following the facility requirements determination, the next step is to develop a direction for development to best meet these projected needs. The remainder of the master plan will be devoted to outlining this direction, its schedule, and its costs.



	FACILITIES AVAILABLE	SHORT TERM NEED	INTERMEDIATE NEED	LONG TERM NEED
RUNWAY SYSTEM:	5,001' x 75'	5,500' x 100'	Same	Same
	GPS Non-precision Approach	Improve Alignment Upgrade GPS Approach	Same	Same
	PAPI aids	PAPI/MALSR aids	Same	Same
TAXIWAYS:	Parallel Taxiway @ 240-ft. Separation	Parallel Taxiway @ 400-ft. Separation	Same	Same



	FACILITIES AVAILABLE	SHORT TERM NEED	INTERMEDIATE NEED	LONG TERM NEED
HANGARED AIRCRAFT:				
T-hangar positions:	28	42	48	54
Conventional Hangar Area (sq. ft):	18,000	25,600	35,500	49,000
Apron Area (sq. yds.):	21,000	17,400	20,800	26,800



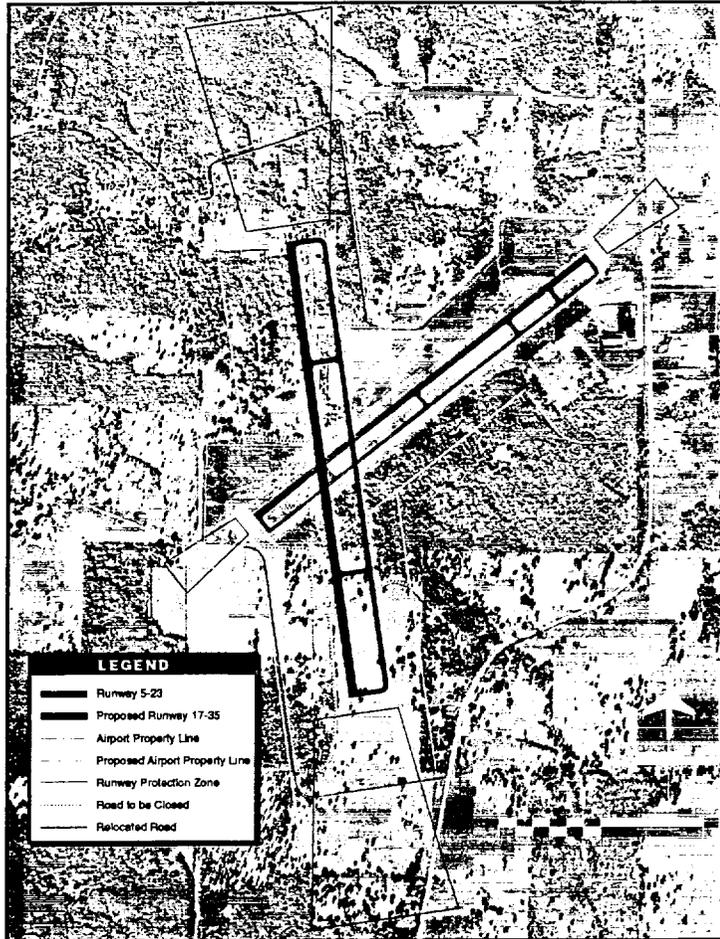
	FACILITIES AVAILABLE	SHORT TERM NEED	INTERMEDIATE NEED	LONG TERM NEED
Terminal Postions:	33	53	100	170
General Aviation/Employee:	30	50	60	80
Total:	63	103	160	250





Chapter Four
DEVELOPMENT ALTERNATIVES

DEVELOPMENT ALTERNATIVES



Any development proposed for a master plan is evolved from an analysis of projected needs for a set period of time. Even though the needs were determined by the best methodology available, it cannot be assumed that future events will not change these needs. The master planning process attempts to develop a viable scheme for meeting the needs brought about by projected demands for the next 20 years. No scheme should be adopted that would preclude expansion beyond the 20-year period or that would require expensive commitments prior to the certainty of need. However, no plan of action should be developed which is inconsistent with the goals and objectives of Baxter County, which has a vested interest in the results of any development.

Airside and landside facilities required to satisfy the various elements of the aviation demand forecast throughout the planning period were identified in the previous chapter. The next step in the planning process involves an evaluation of the various ways these facilities can be provided. The possible combinations of alternatives are endless, so some intuitive judgment must be used to identify the alternatives which have the greatest potential for implementation.

The alternatives considered in this evaluation were not limited to just those that would permit the complete development of Baxter County Regional Airport. In fact, two other basic conceptual alternatives were considered. The first is the "no-build" or "do-nothing" alternative. This alternative presents several major impacts to the public as a result of no future development. The second conceptual alternative involves the transfer of projected aviation demands

to other airports in the region. Finally, consideration is given to means of developing the existing airport in response to the projected future demands. The alternative concepts described in the following pages present the relative merits of each as well as the impacts of implementation on the existing airport facilities, the environs and the community.

DO-NOTHING ALTERNATIVE

In analyzing and comparing the costs and benefits of various development alternatives, it is important to consider the consequences of no additional development at Baxter County Regional Airport. The "do nothing" alternative essentially considers keeping the airport in its present condition and not providing for any type of improvement to the existing facilities. By maintaining the airport in its present condition, a number of major impacts can be expected in the near future. The primary result of this alternative would be the inability of the airport to satisfy projected aviation demands of the airport, and an inability to enhance operational safety.

Analysis of the facility requirements indicate a future need for a longer, wider primary runway, which has greater separation from the parallel taxiway, and consideration of an additional runway to provide adequate wind coverage.

In addition, if the facility remains in its present condition, users of the facility

will be limited to small aircraft in approach categories A and B, and design groups I and II. This is due to the length, width and pavement strength of the current runway, as well as limited runway-taxiway separation. Furthermore, limited runway-taxiway separation will prevent Baxter County Regional Airport from obtaining a precision approach with lower visibility minimums.

Short-term consequences of the "do nothing" approach are associated with the airport's inability to attract new general aviation users. The availability of hangar space is one factor effecting an aircraft owner's decision to base an aircraft.

Wind coverage on the existing runway is not satisfied 95 percent of the time for aircraft in approach categories A and B. If a crosswind runway is not considered, smaller aircraft will have difficulty conducting operations. Crosswinds have been blamed for several aircraft accidents at the airport the past few years, and has caused the cancellation of departing flights and diversion of arriving flights to other airports.

A decision to adopt a no-build alternative is totally inconsistent with the long-term goals of the community. To propose no further improvement of the Baxter County Regional Airport is short-sighted and would adversely affect the immediate and long-term viability of the airport, as well as that of the city and the community. Therefore, the "no-build" alternative is not recommended.

TRANSFER OF AVIATION SERVICES

The alternative of shifting services to another existing airport was found to be an undesirable alternative due to lack of any nearby airports having adequate facilities to meet the aviation demands of the area.

The nearest public airport with similar facilities is in Harrison, Arkansas. Since Harrison is approximately 50 miles west of Mountain Home, it would require area residents to allow an extra hour of driving time in their travel plans. This would significantly impair the community's capability to provide for the air transportation needs of its businesses and citizens. In addition, the inconvenience of traveling such a distance for air service would be a major detraction to potential businesses, and would affect Baxter County's ability to compete for businesses with similarly-sized communities.

There are other public airports in the vicinity. The majority of these airports accommodate single engine aircraft and some small twin engine aircraft. To convert these airports to a higher design category would be much more expensive than maintaining and improving Baxter County Regional Airport. Additionally, the locations of these airports and the time it would take to drive to them must also be considered. Baxter County Regional Airport provides the ideal location for its users. This convenience is a major asset that the other area airports cannot meet or exceed.

In conclusion, the alternative of transferring commercial air service as

well as general aviation services to another airport was found to be unacceptable for several reasons, although the primary reason is the convenience offered to the community by Baxter County Regional Airport. In addition, the investment in the existing facilities has provided a very capable airport that will require only a minimum amount of upgrading to remain viable in the future. It makes economic sense to continue to take advantage of this investment.

AIRPORT DEVELOPMENT ALTERNATIVES - EXISTING SITE

A commitment to remain at the existing site and develop facilities sufficient to meet the long-range aviation demands entails the following requirements:

- ▶ Provide sufficient airside and landside capacity to meet the long-range aviation demand of the area.
- ▶ Develop the airport in accordance with the currently established Federal Aviation Administration (FAA) criteria.

The Facility Requirements Chapter outlined specific types and quantities of facilities necessary to meet projected aviation demands throughout the planning period. Expansion in various areas will be required to meet future demands at Baxter County Regional Airport. The remainder of this chapter will describe various alternatives for the airfield, the terminal building and other general aviation facilities.

AIRFIELD ALTERNATIVES

Airfield facilities are by nature the focal point of the airport complex. Because of their primary role and the fact that they physically dominate airport land use, airfield requirements are the most critical input to the identification of reasonable alternatives for airport development. In particular, the placement of runways and taxiways have the greatest effect.

Analysis in the previous chapter indicated that Runway 5-23 is inadequate to handle many of the business jets presently operating at Baxter County Regional Airport, and many which have been forecast in the future fleet mix. Some of these aircraft have maximum allowable take-off weights in excess of the runway's current strength of 17,000 pounds or have specifications placing them in an airport reference code (ARC) above B-II (that for which facilities at the airport are presently designed). In addition, the airport may be a candidate for a precision approach with lower visibility minimums.

In order to accommodate existing activity and future growth, the primary runway needs to provide a usable length of 5,500 feet and a width of 100 feet. Runway strength will eventually need to be increased from 17,000 pounds SWL to 70,000 pounds DWL. Runway-taxiway separation is currently 240 feet. This is adequate separation for ARC B-II aircraft operating on a nonprecision runway. A precision approach will require that this separation be increased to 400 feet if the airport is designed for approach

category C aircraft. All runway alternatives take these elements into account.

There are several imaginary clearance surfaces associated with runways in which the presence of objects and activities are limited. Some of these are: the runway object free area (ROFA); runway protection zone (RPZ); the runway approach surface; the primary surface and the building restriction line (BRL). The ROFA is an area immediately surrounding the runway for which dimensions vary by airport reference code. Objects other than navigational aids are prohibited within the ROFA.

An RPZ is a trapezoidal area beginning 200 feet beyond the end of the runway with dimensions which vary by ARC and visibility minimums of the approach. That portion of the RPZ not included in the ROFA is referred to as the controlled activity area. Allowable activities and objects in this area include golf courses, agricultural uses, parking lots and roads. Structures, however, are prohibited.

The approach surface, also trapezoidal in shape, extends from the beginning of the RPZ at a slope determined by the critical ARC and visibility minimums to the runway. Fixed objects may not penetrate the approach surface.

The primary surface is an area surrounding the runway joining the two RPZ's 200 feet beyond either runway end. The width of the primary surface is generally the same as the inner RPZ dimension. The BRL extends laterally from the primary surface at a 7:1 slope.

That is, for every seven feet a building is located from the edge of the primary surface it may be one foot high.

Planning for approach category C aircraft and the addition of a low visibility approach will change the dimensions of most of the imaginary surfaces on the airport. The primary surface is currently 250 feet wide (125 feet on either side of the runway centerline), which places the BRL (for a 35 foot structure) 370 feet from the runway. Currently, the only structures located within the existing BRL are the combination shade/T-hangar structure and the private hangar located south of the threshold of Runway 23. The primary surface for a runway with ½-mile minimums is 1,000 feet wide (500 feet on either side of the runway centerline), locating the BRL 745 feet from the runway centerline. This places FBO buildings within the BRL if Runway 5-23 is upgraded. In addition, the ROFA will be expanded from the existing width of 500 to 800 feet and from a length of 335 or 235 to 1,000 feet beyond the runway end. Therefore, depending upon which alternative were selected, road and structure relocation would be necessary.

Four alternatives were originally examined in the *1993 Master Plan* to upgrade the existing runway/taxiway system. The alternatives have been summarized on **Exhibit 4A**. A comparison of the positive and negative factors and costs associated with each alternative have been summarized in **Table 4A**. Alternative A was chosen as the preferred alternative, providing greater length and width of the runway, greater runway-taxiway separation, and

improved safety areas on each runway approach. However, it failed to improve the ability of aircraft to operate at the airport under high crosswind conditions. Therefore, an analysis of potential crosswind runway orientations has been undertaken in this study to reduce the number of aircraft cancellations (based upon winds) and to upgrade the design category of the airport (consistent with current and future aircraft in the fleet mix).

Since wind information for the local airport was unavailable, data for Harrison, Arkansas was requested for a 10-year period (1987-1996). A series of crosswind orientations were superimposed on this data to determine the most effective single runway alignment. This analysis indicated that an alignment of 320-330 degrees (northwest-southeast) provides the best coverage, but not the 95 percent coverage required. However, if a new runway is constructed in this new alignment (to C-II design standards) and the existing runway were allowed to remain "as is" at a B-II category, then the airport could achieve the higher design category and wind coverage while not sacrificing the existing investment in facilities. The four alternatives which were initially considered have been presented in **Exhibit 4B**.

Alternative E presents a primary alignment of 330 degrees, and places the intersection of the new runway at the threshold of Runway 5. As with any crosswind alternative, it involves both residential relocations and road relocation. Wind coverage at 10.5 knots is a combined 98.8%. Costs were not

**TABLE 4A
Summary of Existing Runway Alternatives, Baxter County Regional Airport (1993 Master Plan)**

ALTERNATIVE A

Description:

Construct new 5,500-foot long, 100-foot wide runway with pavement strength of 70,000 pounds DWL 400 feet northwest of existing Runway 5-23. Strengthen and extend 35-foot width of existing runway to become new parallel taxiway.

Positive Factors:

- | | |
|---|----------------------------------|
| 1) Airport can remain open during construction. | 3) FBO relocation not necessary. |
| 2) Relocation of powerline and structures north of airport not necessary. | 4) Cut and fill nearly balance. |

Negative Factors:

- | | |
|--|----------------------------------|
| 1) Relocation of residences west of airport necessary. | 3) Requires entirely new runway. |
| 2) Extensive cut and fill required. | 4) Extensive road relocation. |

Cost \$3,000,000

ALTERNATIVE B

Description:

Construct 1,000-foot runway extension on south end of runway. Widen existing runway to 100 feet, strengthen to 70,000 pounds DWL. Relocate parallel taxiway with centerline 400 feet south of runway centerline.

Positive Factor:

- 1) Structure, road and powerline relocation north of airport not necessary.

Negative Factors:

- | | |
|-----------------------------------|--|
| 1) Requires property acquisition. | 4) Grade problems for placement of MALSR. |
| 2) Must relocate County Road 12 | 5) Extensive fill required for taxiway construction. |
| 3) Places FBO's in BRL. | 6) Requires closure of airport during construction. |

Cost \$3,000,000

ALTERNATIVE C

Description:

Construct realigned 5,500-foot, 70,000 pound DWL runway and taxiway along ridge to avoid falling grade to the south.

Positive Factors:

- 1) Structure, road and powerline relocation not necessary.
2) Placement of MALSR not a problem.

Negative Factors:

- | | |
|---|---|
| 1) Most expensive alternative: requires construction of entirely new runway and parallel taxiway. | 3) Property acquisition required. |
| 2) Places FBO in BRL. | 4) Relocation of County Road 12 necessary. |
| | 5) Requires closure of airport during construction. |

Cost \$3,700,000

ALTERNATIVE D

Description:

Construct new 5,500-foot, 70,000 pound DWL runway with centerline 400 feet from existing parallel taxiway centerline.

Positive Factors:

- 1) Preserves existing taxiway.
2) Preserves FBO buildings.
3) Structure, road and powerline relocation north of airport not necessary.

Negative Factors:

- | | |
|--|---|
| 1) Property acquisition required. | 4) Requires construction of entirely new runway. |
| 2) Relocation of residences west of airport necessary. | 5) Requires closure of airport during construction. |
| 3) Relocation of County Road 12 necessary.. | |

Cost \$3,000,000

Cost estimates do not include relocation of buildings. Source: 1993 Master Plan.

developed, but the alignment attempts to minimize the amount of earthwork required.

Alternative F places the alignment at 320 degrees, with the southeast end of the runway pushed to the east, creating slightly more intersection with the existing runway. Wind coverage at 10.5 knots is a combined 98.9%. Costs were not developed, but the alignment attempts to minimize the amount of earthwork required.

Alternative G pivots the runway in a more north-south direction at 350 degrees, with each end of the runway positioned on high terrain. The alignment intersects with the existing runway further east than the other two alternatives. Wind coverage at 10.5 knots is a combined 96.9%. Costs were not developed, but the alignment attempts to minimize the amount of earthwork required.

Alternative H creates an "x" configuration, with the new 310-degree alignment intersecting very near to mid-field. Combined wind coverage is 97.9 percent. This orientation also takes advantage of terrain at each runway end. Costs were not developed.

Based upon the hilly terrain and power lines which are located north of the airport, a preferred alternative was chosen which closely resembles Alternative G. This alignment provides the opportunity for low visibility approaches from the north, excellent runway coverage during a variety of wind conditions, and maximum

retention of existing facilities and infrastructure. Total cost of land, earthwork, and paving and lighting has been estimated at \$10.2 million. Initial property acquisition consists of 263 acres, five houses, and six mobile homes. Nearly two miles of county road would need to be relocated . . . affected roads include 10, 12, and 511. The preferred alternative is presented in **Exhibit 4C**.

GENERAL AVIATION

Currently, the general aviation facilities consist of a structure with eleven shade and seven T-hangars; a ten unit T-hangar; two conventional hangars owned by the FBO which can accommodate multiple aircraft; and 48 tie-downs on 21,000 square yards of apron (also located at the FBO). The *1993 Master Plan* discussed methods of increasing capacity to meet the demands of future general aviation users. A taxiway has been constructed to provide access into parcels which can be developed south of the FBO, as demand dictates. Therefore, the previous plans developed for general aviation expansion should be carried forward in this update of the master plan.

AIRLINE TERMINAL

The new terminal has adequate capacity to meet long-term passenger needs, although additional paved parking will need to be added if forecast levels are realized.

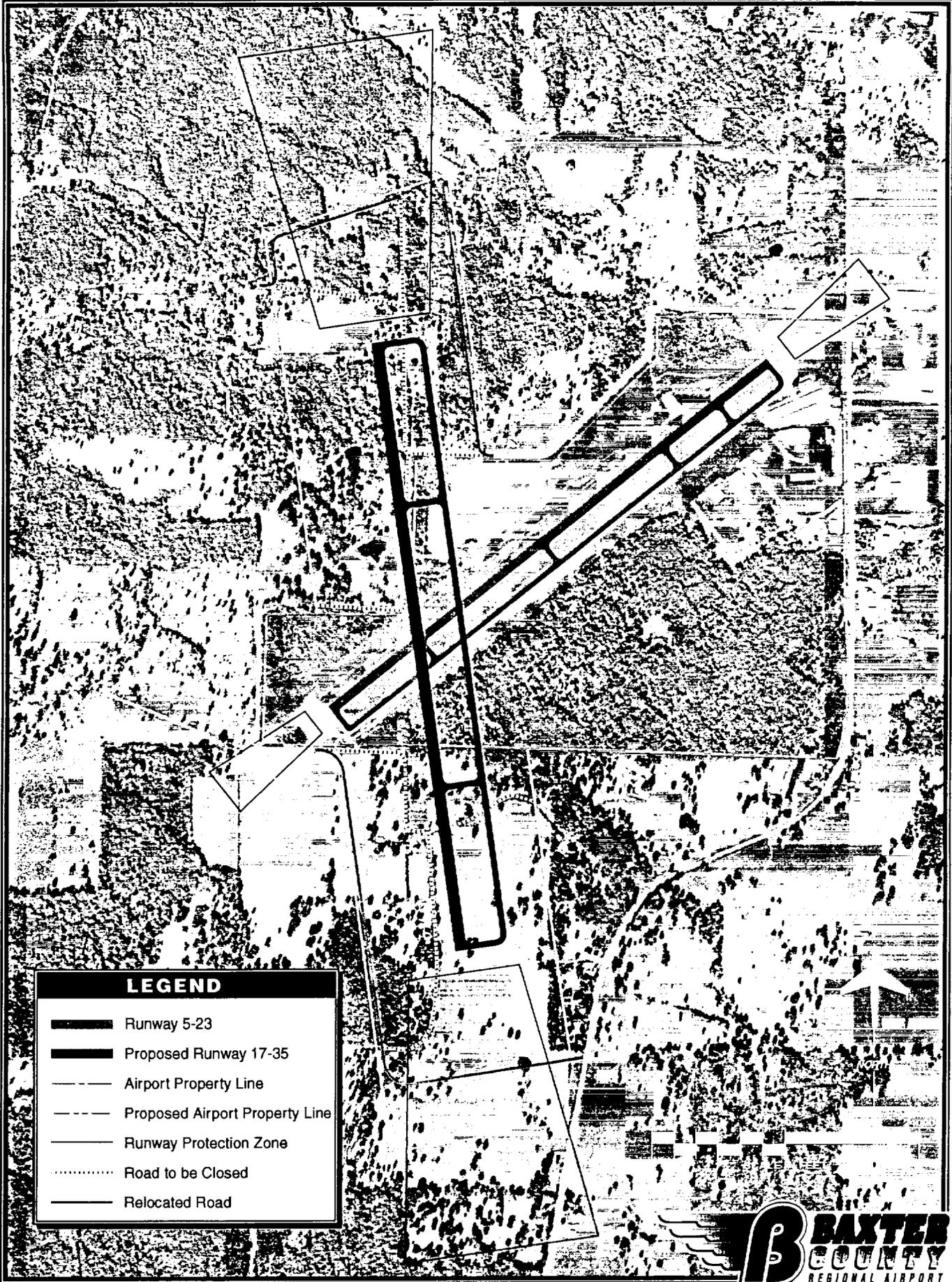
CONCLUSIONS

The major objectives at Baxter County Regional Airport have been in improving visibility minimums for aircraft approaches (taking advantage of current GPS technology), upgrading the airfield to standards consistent with corporate turboprop/turbofan use of the facility, and providing a runway system which effectively reduces accident potential in high crosswind conditions (while also minimizing the need for aircraft diversions during such conditions).

The alternatives analysis has presented a preferred option for meeting these objectives. It involves the construction of a new 5,500-foot runway in a 350-

degree heading, which will serve as the primary runway for the facility, while retaining the existing runway as a secondary runway. The combination of the two runways will provide outstanding coverage in all wind conditions, and a low-visibility landing approach will be possible from either direction to the new runway. While the preferred alternative will require the relocation of several residences and the re-routing of several county roads, costs are expected to remain reasonable, while environmental and social impacts are expected to remain minimal.

The Phase 2 report will provide more detailed plans and cost estimates for the recommended plan.



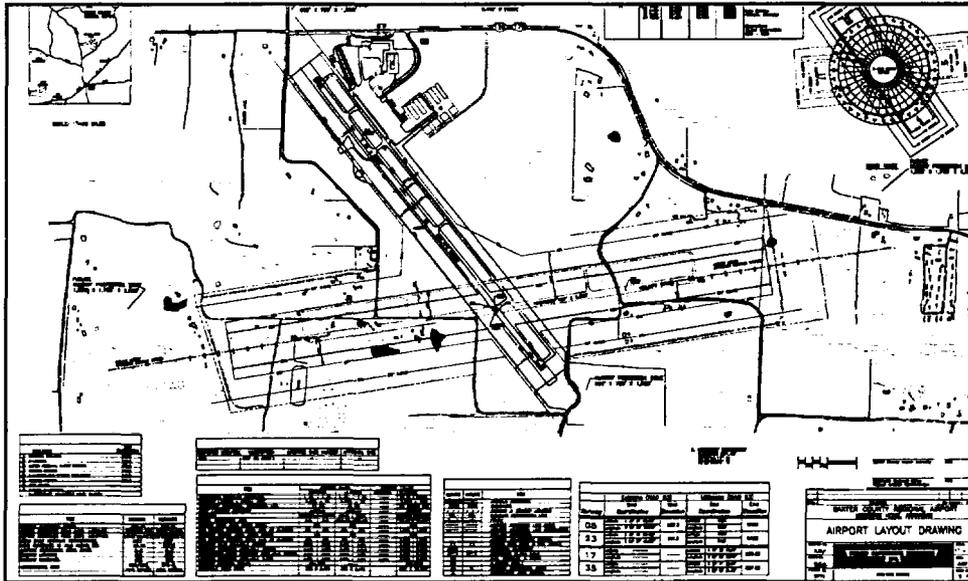
LEGEND	
	Runway 5-23
	Proposed Runway 17-35
	Airport Property Line
	Proposed Airport Property Line
	Runway Protection Zone
	Road to be Closed
	Relocated Road





Chapter Five
AIRPORT PLANS

AIRPORT PLANS



The purpose of this chapter is to describe in narrative and graphic form the recommended development through the 20-year planning period. The chapter identifies areas needed for aviation-related development during (and beyond) the planning period, as well as land on the airport which is available for revenue support. The plans also serve as a reference for airport management to evaluate existing and/or future obstruction disposition in conjunction with the Federal Aviation Administration (FAA). They become the official development plans for the airport, to be amended or revised over time, to reflect the development of the facility as it expands and becomes increasingly important to the economic development of Baxter County.

The airport plans set consists of nine separate drawings, which have been prepared on a computer-assisted drafting system. They graphically depict the recommendations for airfield layouts,

critical approach and protection zone surfaces, commuter facilities and general aviation hangar/taxiway layouts. The nine individual drawings are included on the following pages. They consist of: the Airport Layout Drawing; Part 77 Airspace Plan Drawings; Inner Portion of Runway Approach Surface Drawings; Airport Land Use Plan; and the Airport Property Plan. The recommended development plan reflects the analysis undertaken in Chapter Four, as well as subsequent evaluations to provide a flexible development scheme which will accommodate both projected demand and the long-term goals of the Airport Authority.

DESIGN STANDARDS

Baxter County Regional Airport is identified by the FAA as a commercial service airport (annual enplanements

between 2,500 and 9,999) in the National Plan of Integrated Airport Systems (NPIAS). Airports are planned and designed to accommodate aircraft in particular design groups with certain maximum take-off weights. Guidance documents for airport planning are designed to provide flexibility in application to ensure the safety, economy, and efficiency of the airport. It should be noted that the design standards outlined in this master plan must be followed in order to ensure compliance with federal criteria. Failure to comply with these design standards could result in the loss of eligibility for future airport development grants, both at the federal and state level.

The critical aircraft at Baxter County Regional Airport are business jets, typically included in ARC B-II or C-II.

In order to accommodate these aircraft, a longer, wider runway with greater pavement strength is needed. In addition, Baxter County Regional Airport has become a candidate for an instrument landing system, the installation of which places certain demands on the airport. These concerns have been addressed in the master plan as well as the airport layout plan.

The existing airport facilities were analyzed in this study and relate to the standards set forth in FAA Advisory Circular (AC) 150/5300-13, **Airport Design**. Deficiencies in existing airport facilities, both airside and landside, were identified and, where feasible, improvements were recommended. Existing facilities at Baxter County Regional Airport and applicable design standards are summarized in **Table 5A**.

TABLE 5A
Airfield Design Standards
Baxter County Regional Airport

	Existing	Ultimate
Airport Reference Code	Runway 5-23 B-II	Runway 17-35 C-II
Runway Length (ft.)	5,001	5,500
Runway Width (ft.)	75	100
Runway Strength (lbs.)		
Single Wheel Load	17,000	55,000
Dual Wheel Load		70,000
Taxiway Width (ft.)	40	35
Runway-Taxiway Separation (ft.)	240	400
25-foot Building Restriction Line (ft.)	300	675
Taxiway Centerline to Object (ft.)	65.5	65.5

Source: FAA AC 150/5300-13, Airport Design

AIRPORT LAYOUT DRAWING

The airport layout drawing (ALD) graphically presents the existing and ultimate airport layout, building/facility listings, ground contour elevations, and the general orientation of roads, drainage channels, and structures in the immediate vicinity of the airport. This information has been presented on **Drawing Two**. This drawing becomes the official guidance for FAA (when approved by the Baxter County Airport Authority and FAA) in making future decisions on funding of airfield improvements or other requests for development on the airport property. In other words, if future improvements are not shown on the ALP, they will not be funded by FAA. Therefore, it is important that the Baxter County Airport Authority keep this drawing updated as facilities are added or deleted, or policies toward long-term development change.

With this in mind, at the initiation of this study, a computer-aided drafting system was utilized to prepare this drawing, as well as each of the other drawings explained on the following pages. By having the final drawing in both a hard-line form and on computer software, the Baxter County Airport Authority will be able to continually update this drawing as needed, and ensure that FAA always has an official ALP reflective of current conditions.

Most of the information presented on the ALP has been analyzed in preceding chapters, which justified the need for the recommended development. While the ALP is the comprehensive drawing

outlining all of the existing and future development on the airport, separate drawings have been provided in order to furnish more detail of items such as the Part 77 imaginary surfaces and protection zones associated with the airport, as well as airport property and land use.

Several airfield improvements have been depicted on the ALP in order to bring the airfield up to FAA standards for the type of aircraft using the airport. Landside improvements on the ALP provide additional hangar space and an area to be developed for corporate hangars.

The airport will be brought up to C-II standards with the construction of a new 100 foot wide, 5,500 foot long runway with pavement strength of 55,000 pounds single wheel loading (SWL) and 70,000 pounds dual wheel loading (DWL) in a north-south alignment. The existing runway will be maintained as the secondary runway at B-II design standards.

A new area has been identified in which to construct hangars, southeast of the FBO. This area will contain both individual corporate hangars and T-hangars.

PART 77 AIRSPACE PLANS

The Part 77 airspace plans were developed utilizing the criteria found in Federal Aviation Regulation (F.A.R.) Part 77, "Objects Affecting Navigable Airspace". In order to protect the airspace and approaches to each runway from hazards that could affect

the safe and efficient operation of the airport, federal criteria has been established for use by local planning and land use jurisdictions to control the height of objects in the vicinity of the airport. The Part 77 airspace plans provide a graphic depiction of these criteria.

There are currently no zoning or height restriction regulations in Baxter County. Should future regulations be enacted, this drawing will permit the Baxter County Airport Authority to readily determine if a proposed structure in the vicinity of the airport will penetrate any of the protected airspace surfaces. The Part 77 airspace plans, **Drawings Three and Four** in this ALP set, may become an attachment to the height and hazard zoning ordinance which Baxter County adopts after the completion of this master plan.

Design criteria for surface heights, angles and radii on this plan are determined by airport category and runway approach instrumentation for ultimate conditions. Precision approaches are planned for each approach to the new runway (17 and 35). GPS approaches will be maintained for Runway 5-23.

INNER PORTIONS OF RUNWAY APPROACH SURFACES

The approach surfaces drawings, depicted in **Drawings Five, Six, and Seven**, provide representations of the approach surfaces off each runway end. The plans depict the physical features

in the vicinity of each runway's extended centerline, including significant topographic changes, roadways, transmission lines, and drainageways. The dimensions and angles of the approach surfaces are also a function of the airport category and runway instrumentation.

AIRPORT LAND USE PLAN

Several land use categories define the future use of airport land. These are depicted in **Drawing Eight** and are defined in the following paragraphs.

Aviation (Airfield Operations): This area represents aviation use facilities which are central to the operation of the airport, including runways, taxiways, terminal circulation areas, runway safety areas and runway object free areas. It is generally bounded by the building restriction line or property line on the layout.

Aviation (Airport Operations): This category represents all aviation areas which are not included in Airfield Operations. This includes the following subcategories of land uses:

- **Commercial Service:** This area is defined by the location of the terminal building, parking lot and the commercial service ramp.
- **Aviation Support:** This includes areas which, while not a part of the airfield, serve to support aviation operations. At the present time this includes the fuel farm and the airport rescue and fire fighting (ARFF) facility.

- **Future Development:** This area is reserved for the county to lease at a later date in order to generate revenue.

AIRPORT PROPERTY MAP

As is the case with many airports experiencing growth, expansion projects

may require the purchase of property adjacent to the facility. **Drawing Nine** depicts the current airport property and easements, as well as property and easements to be acquired for the new runway. This drawing also indicates the acreages for these parcels.



Chapter Six
CAPITAL IMPROVEMENT PLAN

CAPITAL IMPROVEMENT PLAN



The analyses conducted in previous chapters evaluated airport development needs based upon forecasted activity, airport design group changes, and operational efficiency. However, the most important element of the master planning process is the application of basic economic rationale to each development item so that the feasibility of implementation can be assured. Hence, the purpose of this chapter is to provide information and tools which will help make the master plan achievable and successful.

The presentation of the capital improvement plan and its feasibility has been organized into two sections. First, the airport development schedule is presented. Second, capital improvement funding sources on the federal, state, and local levels are identified and discussed.

AIRPORT DEVELOPMENT SCHEDULES AND COST SUMMARIES

Once the specific needs and improvements for the airport have been identified, the next step is to determine a realistic schedule and costs for implementing the plan. This section examines the overall cost of development and presents a development schedule. The recommended improvements are grouped and divided into three separate planning period; short, intermediate, and long-term planning periods, which roughly coincide with the years 1998 to 2003, 2004 to 2008, and 2009 to 2018. The short-term planning period covers items of highest priority with regard to construction of Runway 17-35. The phasing and costs associated with the short-term development program have been summarized in Table 6A.

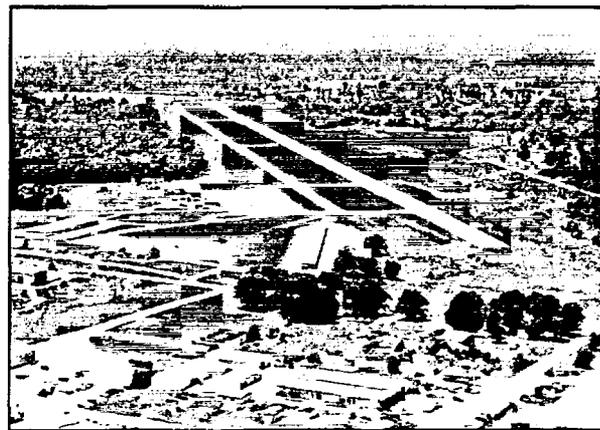


TABLE 6A
Estimated Cost of Short Term Development
Baxter County Regional Airport

<i>Years 1998-1999</i>			
ENVIRONMENTAL ASSESSMENT			\$63,000
PROPERTY ACQUISITION			
Land	263 ac. @ 3,500/ac.	\$920,500	
Houses	5 @ 50,000	250,000	
Mobile Homes	6 @ 10,000	60,000	
Relocation Assistance	11 @ 5,000	55,000	
Surveys, Appraisals, Legal, Etc.		150,000	
			\$1,435,500
CONSTRUCTION			
Clearing & Grubbing	160 ac. @ 1,700	\$272,000	
Fencing	16,150 Lf @ 10	161,500	
Relocate Co. Roads	9,400 Lf @ 50	470,000	
Relocate Utilities		150,000	
			\$1,053,500
SUBTOTAL			\$2,552,000
<i>Years 2000-2001</i>			
Runway 17-35 Grading and Drainage		\$3,374,800	
Taxiway Grading and Drainage		1,817,200	
SUBTOTAL			\$5,192,000
<i>Years 2002-2003</i>			
Runway 17-35 Paving, Lighting, and Marking		\$1,395,520	
Taxiway Paving, Lighting, and Marking		1,096,480	
SUBTOTAL			\$2,492,000
GRAND TOTAL:			\$10,236,000
FEDERALLY ELIGIBLE:			\$9,212,400
LOCAL SHARE:			\$1,023,600

Due to the conceptual nature of a master plan, implementation of capital projects should occur only after further

refinement of their design and costs through architectural and engineering analyses. Under normal conditions, the

cost estimates reflect on allowance for engineering and other contingencies that may be anticipated on the project. Capital costs in this chapter should be viewed only as estimates subject to further refinement during design. Nevertheless, these estimates are considered sufficiently accurate for performing the feasibility analyses in this chapter.

During the intermediate planning period, the development program reflects the cost of installing approach

lighting systems for Runway 17-35, a local area augmentation system for GPS, T-hangar, and stub taxiway construction, and miscellaneous pavement rehabilitation.

The long-term development program includes terminal apron and expansion, automobile parking, hangar development, pavement rehabilitation, and airport maintenance equipment purchases. The intermediate and long-term development program items have been summarized in **Table 6B**.

TABLE 6B	
Estimated Cost of Intermediate and Long-Term Development	
Baxter County Regional Airport	
	Cost
Intermediate Development	
Approach Light Systems - Runway 17-35	\$700,000
GPS Local Area Augmentation System	100,000
T-Hangars (20 units) and Stub Taxiways	500,000
Road to T-Hangar Area	75,000
Pavement Rehabilitation	500,000
Subtotal	\$1,875,000
Long-Term Development	
Terminal Apron/Auto Parking Expansion	\$250,000
T-Hangars (30 units)	750,000
Pavement Rehabilitation	500,000
Airport Maintenance Equipment	250,000
Subtotal	\$1,750,000
GRAND TOTAL	\$3,625,000
FEDERALLY ELIGIBLE	\$2,150,000
LOCAL SHARE	\$1,475,000

CAPITAL IMPROVEMENTS FUNDING

Financing capital improvements at the airport will not rely exclusively upon the financial resources of the Baxter County Regional Airport Authority. Capital improvements funding is available through various grand-in-aid programs on the state and federal levels, as well as local passenger facility charges (PFC's). The following discussion outlines the key sources for capital improvement funding.

FEDERAL GRANTS

The United States Congress has long recognized the need to develop and maintain a system of aviation facilities across the nation for the purpose of national defense and promotion of interstate commerce. Various grant-in-aid programs to public airports have been established over the years for this purpose. The most recent legislation is the Airport Improvement Program (AIP). The source for AIP funds is the Aviation Trust Fund. The Aviation Trust Fund was established in 1970 to provide funding for aviation capital investment programs (e.g. facilities and equipment, research and development, and grants for airport development and expansion projects). It also finances about 75 percent of the FAA's operations account. The Aviation Trust Fund is funded by federal user fees and taxes on airline tickets, aviation fuel, and various aircraft parts.

Under the AIP, examples of eligible development projects include the airfield, apron, and access road

improvements. The AIP program provides funding for 90 percent of the eligible public use project's cost. The AIP funds are distributed each year by the FAA under authorization from the United States Congress. Half of each year's authorized level of AIP funding is distributed to all eligible commercial services airports (above 10,000 annual enplanements) through an entitlement program that guarantees a minimum level of federal assistance each year based on prior year enplanements and/or cargo service levels. Baxter County Regional Airport is projected to qualify for entitlement funds in the intermediate planning period. The remaining AIP funds are distributed on a discretionary basis.

Passenger entitlement funding for commercial service airports is determined using a formula; however, at small airports of similar size to Baxter County Regional Airport, they will generally receive a minimum of \$500,000 annually.

As often is the case, major capital improvements require funds from discretionary apportionments. The primary feature of AIP discretionary funds that must be recognized is that these funds are distributed on a priority basis. These priorities are established by each FAA regional office based upon the dollar amount of applications received. Since the AIP program funds up to 90 percent of eligible projects, it is essential to most public airport development programs. As a result, the airport will be competing with other airports in the FAA Southwest Region for discretionary funds. Whereas entitlement monies are guaranteed on

an annual basis, discretionary funds are not.

STATE AID TO AIRPORTS

In support of the state airport system, the State of Arkansas also participates in airport improvement projects. The State of Arkansas has several different grant programs with varying levels of state participation and funding limits.

50-50 Match - All Airport Improvement Projects

For all qualified airports, the State of Arkansas will fund 50 percent of an airport improvement project's total cost. There is no annual limit on the number of grants or the fund amount.

90-5-5 Match - Federal Airport Improvement Program Funds

For all airports receiving federal airport improvement funds, the State of Arkansas will match five percent of the total project cost not to exceed \$100,000. Local cash match required as per federal guidelines, and there is no limit on the number of grants issued per year.

75-25 Match - All Airport Improvement Projects

For all qualified general aviation airports, the State of Arkansas will fund 75 percent of the total project cost of any airport improvement project. The total project cost cannot exceed \$100,000 with the state share limited to

\$75,000. There is a limit of one grant per fiscal year.

90-10 Match - Runway Overlay Or Sealing Projects

For all qualified general aviation and non-primary commercial service airports, the State of Arkansas will fund 90 percent of the total cost of runway overlay or runway sealing projects. For runway overlay projects, the total project cost cannot exceed \$175,000 with the state share limited to \$157,500. For runway sealing projects, total project cost cannot exceed \$60,000 with state share limited to \$54,000.

50-50 Match - Airport Terminal Building and Hangar Construction

For all public owned/public use airports, the State of Arkansas will fund 50 percent of the total cost of terminal building and hangar projects. The state share is limited to \$100,000 on hangars and \$50,000 on terminal building projects. Hangars are eligible for a matching share only if they are constructed to accommodate aviation business or industry.

LOCAL SHARE FUNDING

After consideration has been given to grants and passenger facility charges, the balance of project costs must be funded through airport resources. Usually, this is accomplished through the use of airport earnings and reserves, to the extent possible, with the remaining costs financed through bonds.

PLAN IMPLEMENTATION

The best means of beginning the implementation of recommendations of this master plan is to first recognize that planning is an **ongoing process** that does not end with completion of the master plan. Rather, the ability to continuously monitor the existing and forecast status of airport activity must be provided and maintained. The basic issues upon which this master plan is based will remain valid for several years. As such, the primary goal is for the airport to evolve into a facility that will best serve the air transportation needs of the Baxter County area well into the 21st century.

Towards meeting this goal, successful implementation of airport improvement projects will require sound judgment on the part of airport management. Among the more important factors influencing their decision are **timing** and **airport activity**. Both of these factors should be used as references in the implementation of the master plan. In this master plan, it was necessary to primarily focus on the timing of airport improvements. However, the actual need for facilities is more appropriately established by airport activity levels rather than a specified date.

For example, projections have been made as to when storage hangar facilities will be needed. In reality, however, the time frame in which additional facilities is needed may be

substantially different. Actual demand may be slow in reaching forecast activity levels. On the other hand, increase demand may establish the need for new facilities much sooner. Although every effort has been made in this master planning process to conservatively estimate when facility development may be needed, actual demand will dictate when facility improvements are needed.

The real value of the master plan is that it keeps the issues and objectives in the mind of the user so that he or she is better able to recognize change and its affect. In addition to adjustments in aviation demand, decisions made as to when to undertake recommended improvements in this master plan will affect the period for which the plan remains valid. The format used in this process is intended to allow the user to update the plan, thereby improving the plan's effectiveness and reducing the need for costly updates.

In summary, the planning process requires the Baxter County Regional Airport Authority to consistently monitor the progress of the airport in terms of overall aviation activity. Analysis of aircraft and passenger demand is critical to determining the exact timing and need for new airport facilities. The information obtained from this continuous monitoring process will provide the data necessary to determine if the development schedule should be modified.



KANSAS CITY
(816)524-3500

237 N.W. Blue Parkway
Suite 100
Lee's Summit, MO 64063

PHOENIX
(602) 993-6999

11022 N. 28th Drive
Suite 240
Phoenix, AZ 85029

APPENDIX E

Baxter County Regional Airport Authority
P&L Budget Comparison
 January 1, 1999 through April 15, 2002

#02

	Jan - Dec '99	Budget
Income		
Air Service Study Income	12,348.92	
County Appropriated Funds	23,000.00	
FAA Projects Income		
Improvement Project Income	39,679.50	
Runway Light Project	99,249.14	
Total FAA Projects Income	138,928.64	
General Operating Income		
FBO Income	1,300.00	
Fuel Sales	11,893.32	
Hangar Fees	28,305.00	
Landing Fees	3,227.84	
Miscellaneous Income	240.96	
Rent	11,638.38	
Service Fee Income	4,480.00	
Tie-Down Rent	520.00	
Timber Sale Revenue	37,127.00	
Utility Income	2,074.16	
Vending Commissions		
Candy Machine Commission	35.50	
Total Vending Commissions	35.50	
General Operating Income - Other	0.00	
Total General Operating Income	100,842.16	
Interest Earned		
Interest Income	875.90	
Interest Earned - Other	0.00	
Total Interest Earned	875.90	
New Hangar Const. Deposits	0.00	
Total Income	275,995.62	
Expense		
Air Service Study Expense	27,862.00	
FAA Projects Expenses		
Improvement Project Expense	176,647.95	
Total FAA Projects Expenses	176,647.95	
General Operating Expenses		
Advertising and Promotions	671.14	
Auto Expense	161.50	
Bank Charges	30.71	
Cleaning Service	2,729.65	
Director Fees	5,775.00	
Dues, Subscriptions & Ed	150.06	
Flight Reimbursement	66.45	
Freight	15.75	
Fuel & Oil	71.43	
Hangar Payments	16,900.48	
Legal and Accounting	980.00	
Management Fees	14,806.61	
Meals/ Entertainment	353.43	
Meeting Expenses	228.41	
Mileage Reimbursement	135.12	
Office Expense	1,302.38	
Postage	198.00	
Repair & Maintenance- A/P Build	6,039.91	
Repair & Maintenance-Equipment	2,059.58	
Sub-Contracts	107.80	
Supplies	1,430.79	
Telephone	512.19	
Travel Expenses	165.40	
Uncategorized Expenses	0.00	
Utilities & Trash	11,702.44	

Baxter County Regional Airport Authority
P&L Budget Comparison
January 1, 1999 through April 15, 2002

102

Total General Operating Expenses

66,594.21

Total Expense

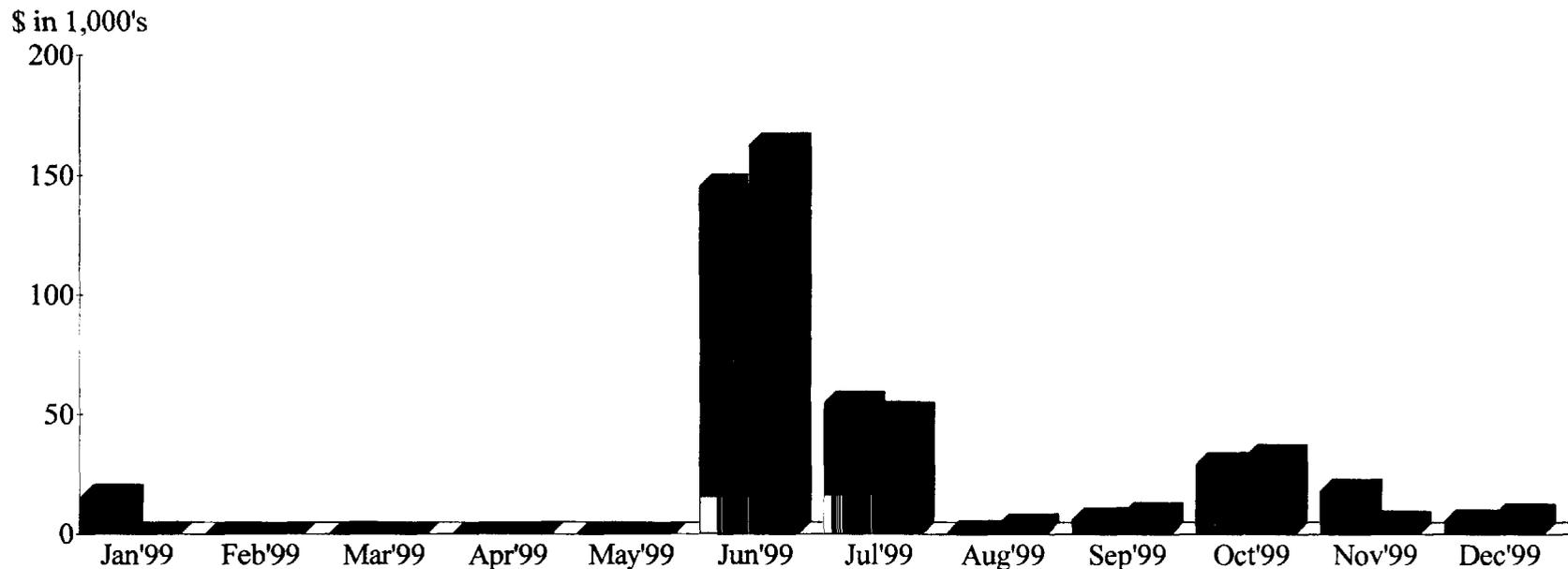
271,104.16

Income

4,891.46

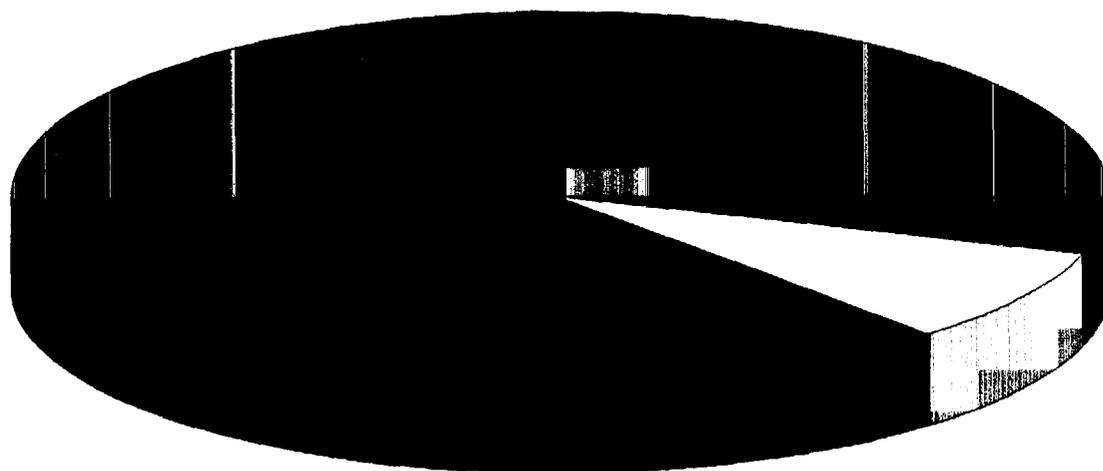
Income and Expense by Month
Jan - Dec '99

Income
Expense



Income Summary
Jan - Dec '99

FAA Projects Income	%50.34
General Operating Income	36.54
County Appropriated Funds	8.33
Air Service Study Income	4.47
Interest Earned	0.32
Total	\$275,995.62



By Account

Baxter County Regional Airport Authority
P&L Budget Comparison
 January 1, 1999 through April 15, 2002

102

	Jan - Dec '00	Budget
Income		
Air Service Study Income	0.00	
County Appropriated Funds	0.00	
FAA Projects Income		
Improvement Project Income	-17,798.85	
Runway Light Project	9,605.00	
Total FAA Projects Income	-8,193.85	
General Operating Income		
FBO Income	0.00	
Fuel Sales	11,951.84	
Hangar Fees	29,305.00	
Landing Fees	3,015.00	
Miscellaneous Income	0.00	
Rent	10,120.00	
Service Fee Income	6,116.90	
Tie-Down Rent	1,220.00	
Timber Sale Revenue	52.00	
Utility Income	3,331.05	
Vending Commissions		
Candy Machine Commission	24.45	
Total Vending Commissions	24.45	
General Operating Income - Other	0.00	
Total General Operating Income	65,136.24	
Interest Earned		
Interest Income	496.21	
Interest Earned - Other	43.49	
Total Interest Earned	539.70	
New Hangar Const. Deposits	3,600.00	
Total Income	61,082.09	
Expense		
Air Service Study Expense	0.00	
FAA Projects Expenses		
Improvement Project Expense	0.00	
Total FAA Projects Expenses	0.00	
General Operating Expenses		
Advertising and Promotions	236.06	
Auto Expense	0.00	
Bank Charges	68.50	
Cleaning Service	3,942.24	
Director Fees	0.00	
Dues, Subscriptions & Ed	42.12	
Flight Reimbursement	0.00	
Freight	0.00	
Fuel & Oil	153.34	
Hangar Payments	13,417.48	
Legal and Accounting	0.00	
Management Fees	17,250.12	
Meals/ Entertainment	0.00	
Meeting Expenses	129.63	
Mileage Reimbursement	0.00	
Office Expense	2,168.41	
Postage	173.65	
Repair & Maintenance- A/P Build	3,081.56	
Repair & Maintenance-Equipment	5,354.30	
Sub-Contracts	0.00	
Supplies	1,271.01	
Telephone	533.53	
Travel Expenses	0.00	
Uncategorized Expenses	9.92	
Utilities & Trash	15,110.13	

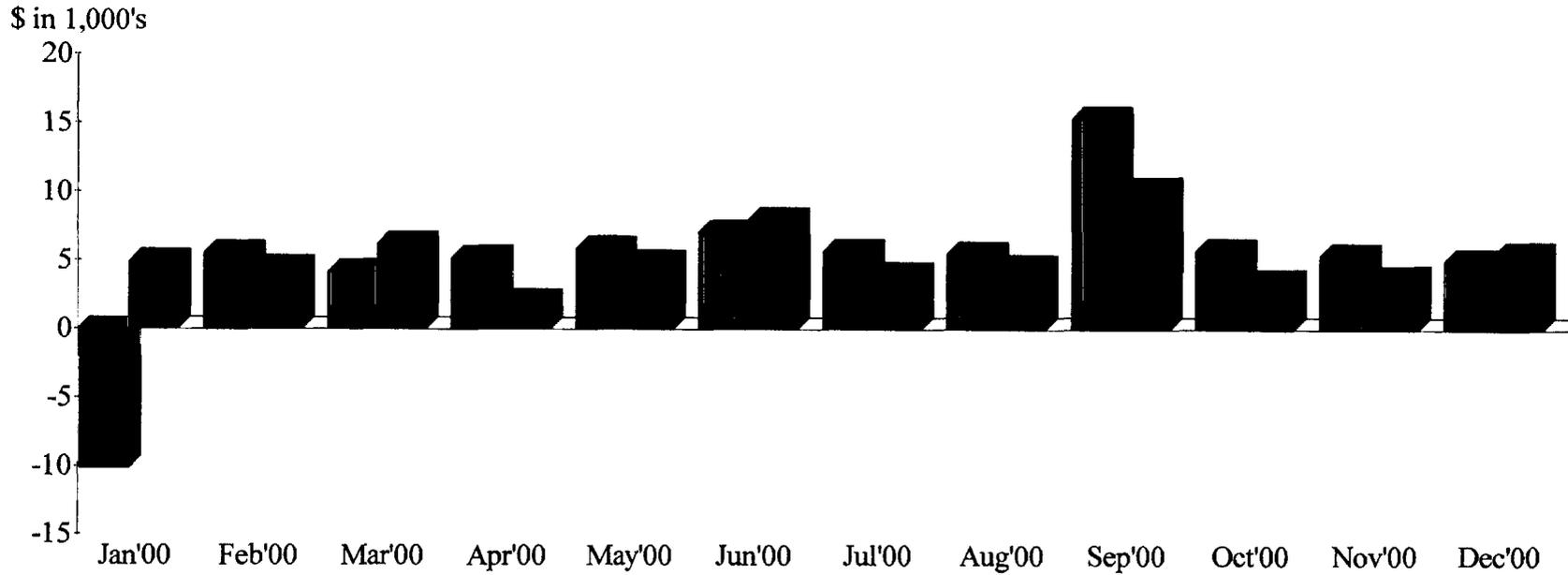
Baxter County Regional Airport Authority
P&L Budget Comparison
January 1, 1999 through April 15, 2002

102

	<u>Jan - Dec '00</u>	<u>Budget</u>
Total General Operating Expenses	62,942.00	
Total Expense	62,942.00	
Income	<u>-1,859.91</u>	

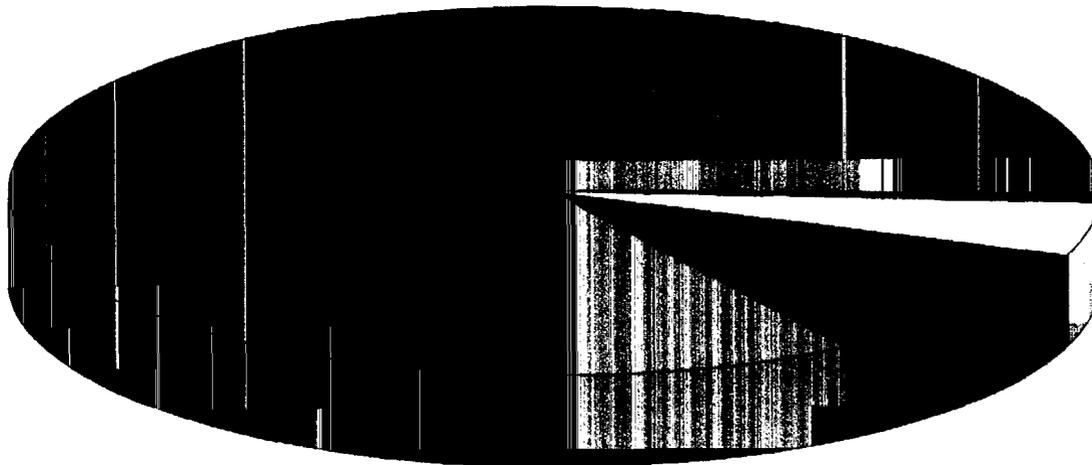
Income and Expense by Month
Jan - Dec '00

Income
Expense



Income Summary
Jan - Dec '00

General Operating Income	%94.02
FAA Projects Income	\$-8,193.85
New Hangar Const. Deposits	5.20
Interest Earned	0.78
Sub-Total	\$61,082.09



By Account

Baxter County Regional Airport Authority
P&L Budget Comparison
January 1, 1999 through April 15, 2002

702

	Jan - Dec '01	Budget
Income		
Air Service Study Income	0.00	
County Appropriated Funds	0.00	
FAA Projects Income		
Improvement Project Income	0.00	
Runway Light Project	0.00	
Total FAA Projects Income	0.00	
General Operating Income		
FBO Income	0.00	
Fuel Sales	10,374.97	
Hangar Fees	28,795.00	
Landing Fees	2,631.00	
Miscellaneous Income	0.00	
Rent	9,721.00	
Service Fee Income	4,200.00	
Tie-Down Rent	840.00	
Timber Sale Revenue	0.00	
Utility Income	3,991.99	
Vending Commissions		
Candy Machine Commission	0.00	
Total Vending Commissions	0.00	
General Operating Income - Other	12.00	
Total General Operating Income	60,565.96	
Interest Earned		
Interest Income	268.59	
Interest Earned - Other	352.01	
Total Interest Earned	620.60	
New Hangar Const. Deposits	0.00	
Total Income	61,186.56	
Expense		
Air Service Study Expense	0.00	
FAA Projects Expenses		
Improvement Project Expense	-15,863.50	
Total FAA Projects Expenses	-15,863.50	
General Operating Expenses		
Advertising and Promotions	0.00	
Auto Expense	0.00	
Bank Charges	122.25	
Cleaning Service	6,077.01	
Director Fees	0.00	
Dues, Subscriptions & Ed	225.08	
Flight Reimbursement	0.00	
Freight	0.00	
Fuel & Oil	348.96	
Hangar Payments	8,450.24	
Legal and Accounting	927.50	
Management Fees	24,757.10	
Meals/ Entertainment	0.00	
Meeting Expenses	0.00	
Mileage Reimbursement	0.00	
Office Expense	1,349.33	
Postage	41.48	
Repair & Maintenance- A/P Build	3,622.87	
Repair & Maintenance-Equipment	1,222.08	
Sub-Contracts	880.00	
Supplies	2,855.59	
Telephone	1,012.36	
Travel Expenses	0.00	
Uncategorized Expenses	500.00	
Utilities & Trash	18,405.33	

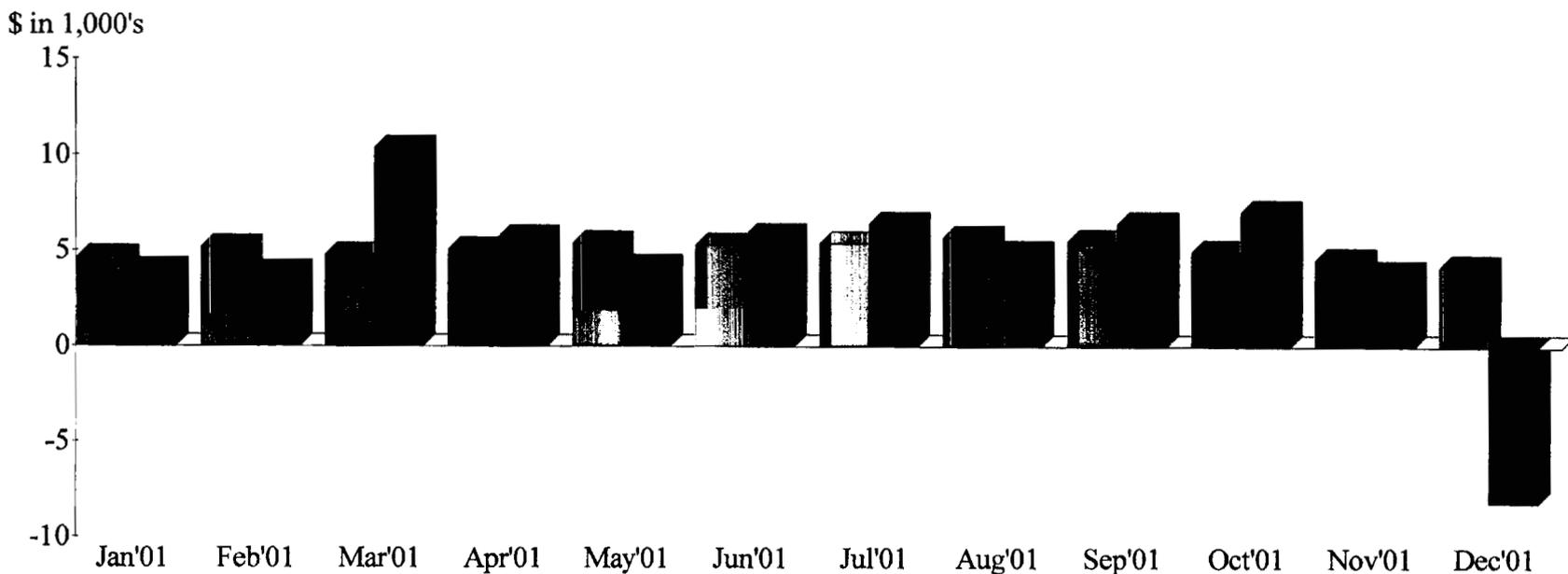
Baxter County Regional Airport Authority
P&L Budget Comparison
January 1, 1999 through April 15, 2002

02

	<u>Jan - Dec '01</u>	<u>Budget</u>
Total General Operating Expenses	70,797.16	
Total Expense	54,933.66	
Income	<u>6,252.90</u>	

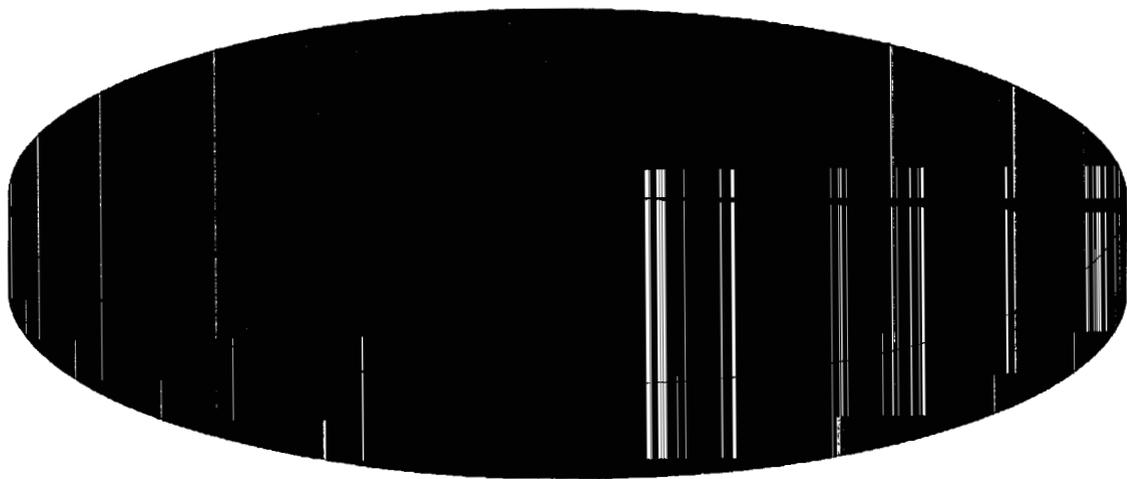
Income and Expense by Month
Jan - Dec '01

Income
Expense



Income Summary
Jan - Dec '01

General Operating Income	%98.99
Interest Earned	1.01
Total	\$61,186.56



By Account

Baxter County Regional Airport Authority
P&L Budget Comparison
 January 1, 1999 through April 15, 2002

	Jan 1 - Apr 15, '02	Budget
Income		
Air Service Study Income	0.00	
County Appropriated Funds	0.00	
FAA Projects Income		
Improvement Project Income	0.00	
Runway Light Project	0.00	
Total FAA Projects Income	0.00	
General Operating Income		
FBO Income	0.00	
Fuel Sales	2,672.19	
Hangar Fees	10,170.00	
Landing Fees	0.34	
Miscellaneous Income	0.00	
Rent	2,036.00	
Service Fee Income	1,550.00	
Tie-Down Rent	260.00	
Timber Sale Revenue	0.00	
Utility Income	807.20	
Vending Commissions		
Candy Machine Commission	0.00	
Total Vending Commissions	0.00	
General Operating Income - Other	0.00	
Total General Operating Income	17,495.73	
Interest Earned		
Interest Income	6.94	
Interest Earned - Other	145.79	
Total Interest Earned	152.73	
New Hangar Const. Deposits	0.00	
Total Income	17,648.46	
Expense		
Air Service Study Expense	0.00	
FAA Projects Expenses		
Improvement Project Expense	0.00	
Total FAA Projects Expenses	0.00	
General Operating Expenses		
Advertising and Promotions	-400.00	
Auto Expense	0.00	
Bank Charges	5.00	
Cleaning Service	540.00	
Director Fees	0.00	
Dues, Subscriptions & Ed	600.00	
Flight Reimbursement	0.00	
Freight	0.00	
Fuel & Oil	19.03	
Hangar Payments	0.00	
Legal and Accounting	0.00	
Management Fees	6,708.38	
Meals/ Entertainment	0.00	
Meeting Expenses	150.00	
Mileage Reimbursement	0.00	
Office Expense	282.46	
Postage	0.00	
Repair & Maintenance- A/P Build	1,382.02	
Repair & Maintenance-Equipment	3,559.55	
Sub-Contracts	0.00	
Supplies	185.79	
Telephone	289.16	
Travel Expenses	0.00	
Uncategorized Expenses	0.00	
Utilities & Trash	4,726.37	

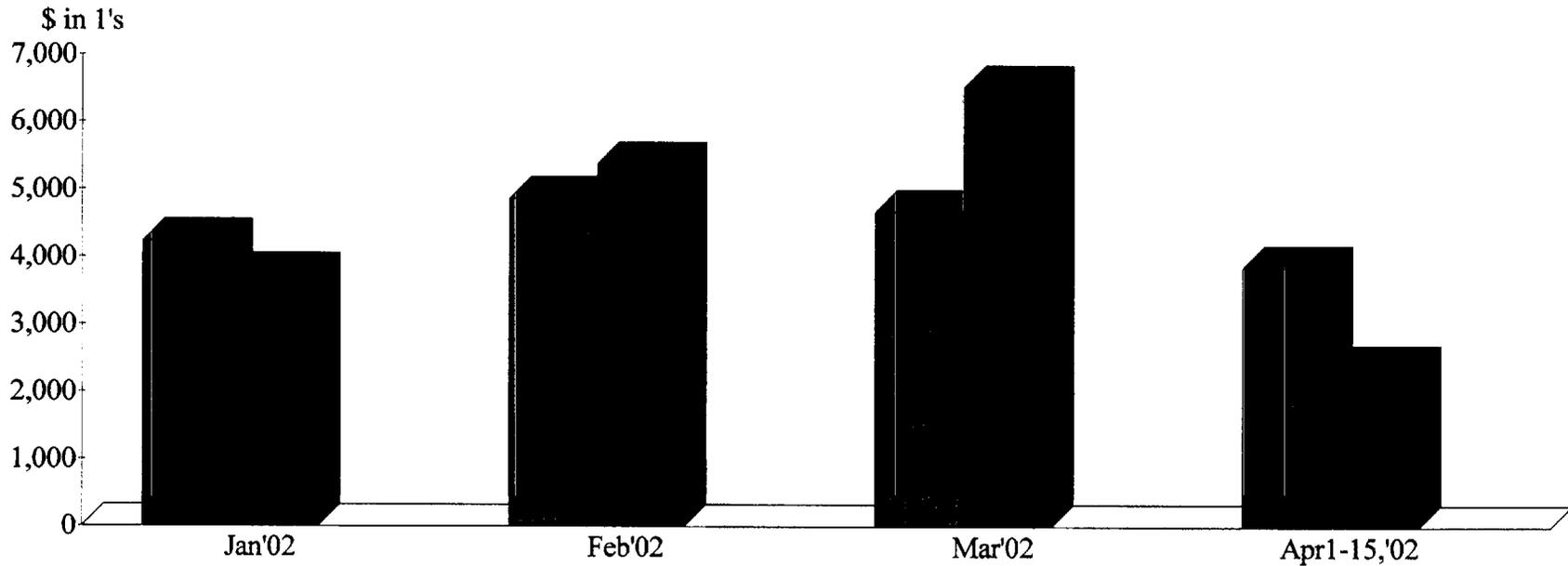
Baxter County Regional Airport Authority
P&L Budget Comparison
January 1, 1999 through April 15, 2002

02

	<u>Jan 1 - Apr 15, '02</u>	<u>Budget</u>
Total General Operating Expenses	18,047.76	
Total Expense	18,047.76	
Income	<u>-399.30</u>	

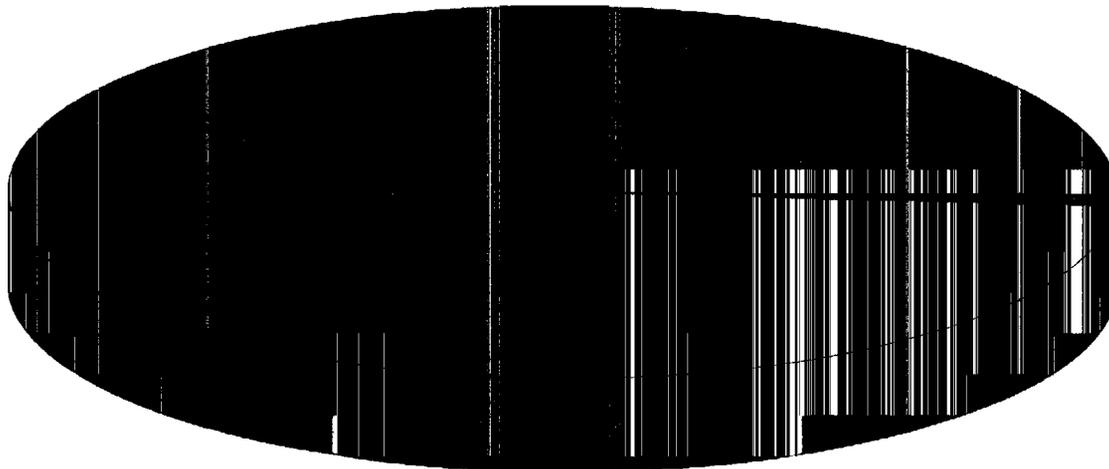
Income and Expense by Month
Jan 1 - Apr 15, '02

Income
Expense



Income Summary
Jan 1 - Apr 15, '02

General Operating Income	%99.13
Interest Earned	0.87
Total	\$17,648.46



By Account

Baxter County Regional Airport Authority
P&L Budget Comparison
January 1, 1999 through April 15, 2002

02

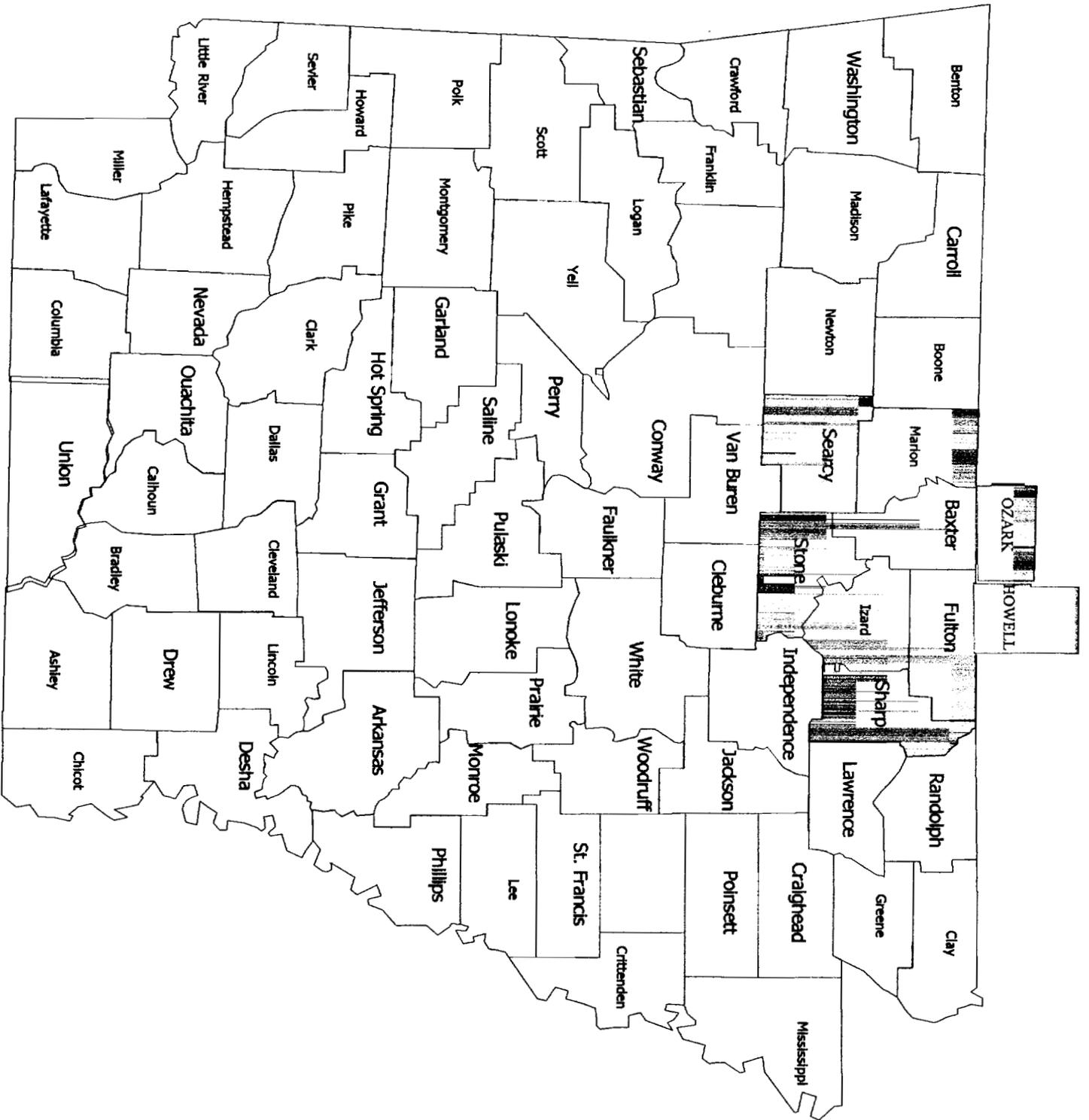
	TOTAL	
	Jan 1, '99 - Apr 15, '02	Budget
Income		
Air Service Study Income	12,348.92	
County Appropriated Funds	23,000.00	
FAA Projects Income		
Improvement Project Income	21,880.65	
Runway Light Project	108,854.14	
Total FAA Projects Income	130,734.79	
General Operating Income		
FBO Income	1,300.00	
Fuel Sales	36,892.32	
Hangar Fees	96,575.00	
Landing Fees	8,874.18	
Miscellaneous Income	240.96	
Rent	33,515.38	
Service Fee Income	16,346.90	
Tie-Down Rent	2,840.00	
Timber Sale Revenue	37,179.00	
Utility Income	10,204.40	
Vending Commissions		
Candy Machine Commission	59.95	
Total Vending Commissions	59.95	
General Operating Income - Other	12.00	
Total General Operating Income	244,040.09	
Interest Earned		
Interest Income	1,647.64	
Interest Earned - Other	541.29	
Total Interest Earned	2,188.93	
New Hangar Const. Deposits	3,600.00	
Total Income	415,912.73	
Expense		
Air Service Study Expense	27,862.00	
FAA Projects Expenses		
Improvement Project Expense	160,784.45	
Total FAA Projects Expenses	160,784.45	
General Operating Expenses		
Advertising and Promotions	507.20	
Auto Expense	161.50	
Bank Charges	226.46	
Cleaning Service	13,288.90	
Director Fees	5,775.00	
Dues, Subscriptions & Ed	1,017.24	
Flight Reimbursement	66.45	
Freight	15.75	
Fuel & Oil	592.76	
Hangar Payments	38,768.20	
Legal and Accounting	1,907.50	
Management Fees	63,522.21	
Meals/ Entertainment	353.43	
Meeting Expenses	508.04	
Mileage Reimbursement	135.12	
Office Expense	5,102.58	
Postage	413.13	
Repair & Maintenance- A/P Build	14,126.36	
Repair & Maintenance-Equipment	12,195.49	
Sub-Contracts	987.80	
Supplies	5,743.18	
Telephone	2,347.24	
Travel Expenses	165.40	
Uncategorized Expenses	509.92	
Utilities & Trash	49,944.27	

Baxter County Regional Airport Authority
P&L Budget Comparison
 January 1, 1999 through April 15, 2002

102

	TOTAL	
	Jan 1, '99 - Apr 15, '02	Budget
Total General Operating Expenses	218,381.13	
Total Expense	407,027.58	
Income	8,885.15	

APPENDIX F



APPENDIX G



**BROOKS
JEFFREY
MARKETING**

April 17, 2002

Memo To: Baxter County Airport Commissioners

From: Jodie Elizabeth Jeffrey

Subject: Annual Marketing Budget for Baxter County Regional Airport

Thank you for the opportunity to submit marketing ideas, concepts and a general budget requirement for Baxter County Airport Commission.

In order to cover adequately the 9 county area (Baxter, Marion, Fulton, Sharp, IZard, Stone and Searcy counties in Arkansas and Ozark and Howell counties in Missouri) that Baxter Regional Airport serves the following marketing/public relations/advertising ideas would require approximately \$100,000 during the "start-up" year since nothing exists to work from or with.

The following concepts and ideas would be created and/or utilized:

1-- logo and stationery for Baxter County Airport Commission (currently none exists - the logo expense would be the first year only with stationery being reprinted as needed)

2-- photo shoot on location -- photos to be used in marketing via ads, brochures, billboards, web site. (no photos are currently available for any promotion, project or press release)

3-- 20,000 brochures -- distributed by 17 chamber of commerce offices; TICs (Tourist Information Center) in Mammoth Springs and Harrison; distributed to businesses within the 9 county area by mail (no brochure or "hand-out" currently exists to promote the airport or it's services)

4-- web site -- with it's own virtual domain (address) and 10 pages (several that can be updated by the commission themselves with no programming knowledge) --home page, future improvements page, airport master plan, contact us request form linked to email, services page, area information with links to other regional and area sites of interest to business and individual travelers; maps of the airport location and layout, what's new page for commissioners to post news updates as needed, calendar of events maintained by the commission, survey maintained by the commission, site registration and hosting services

5-- power point presentation available on the web site and for use in presentations to airlines, area businesses. clubs and organizations utilizing the most current strategic report and airport master plan

6--yellow page advertising in all telephone directories produced by telephone companies in the 9 county area -- this is an annual expense

7-- billboards -- one per county -- 9 total -- leased by the month with annual contracts for best rates

8--1-800 number for use in all marketing -- annual expense

9--direct mail to area businesses in the 9 county area to promote the airport, airline services available there, brochure and rolodex card would be included -- first year expense

10-- direct mail to travel agencies in the 9 county area -- brochure and rolodex card would be included -- first year expense

11-- 16 to 20 press releases per year sent to all area media in the 9 counties -- annual expense

12-- newspaper advertising to promote the airline schedule and airport services

13-- radio advertising to promote the airline schedule and airport services

A plan to work with area travel agencies and chamber of commerce offices in both print and radio advertising promotions would be developed and pursued. These are annual expenses that can be adjusted depending on the budget.

14-- the airport as an organization needs to join all area chamber of commerce offices and the two regional tourism associations in order to be listed on the chamber web sites and link from the chamber sites to the airport site therefore benefitting the airport by the advertising done by the individual chambers.

Thank you for your consideration.