

*ALABAMA DEPARTMENT OF
TRANSPORTATION AERONAUTICS BUREAU*



**Montgomery Branch of the
American Society of Civil Engineers
Branch Meeting
May 15, 2019**

A BIT OF HISTORY

- 1935 – Alabama Aeronautics Commission Formed by State Law
- 1945 – Commission Enlarged and Changed to the Alabama Department of Aeronautics
 - Governed by a 7-member Commission
- 1945 – Legislation adopted dedicating aviation fuel taxes to operate the Aeronautics Department
- 1946 – Constitutional Amendment Adopted Authorizing Airport Grants
- 2000 – Aeronautics Department Merged with ALDOT

STATE LAW GIVES ALDOT GENERAL SUPERVISION OVER ALL PHASES OF AERONAUTICS WITHIN ALABAMA

- ➔ Grant Program
- ➔ State Airport System Planning
- ➔ Landing Area Inspections and Licensing Program
- ➔ Alabama's General Aviation Security Requirements
- ➔ Pavement Maintenance Plans
- ➔ Wildlife Hazard Assessments

THE RECOMMENDED AIRPORT SYSTEM

The recommended airport system was developed to serve and support the State's population, airport users, industrial parks, economic centers, recreational attractions, and planned highway improvements. At the heart of the recommended airport system were the five functional roles that work together to provide a wide variety of aviation facilities and services across the State.

- **International** airports serve as Alabama's primary gateway to global passenger and air cargo markets.
- **National** airports serve a contributing role in providing the local, regional, and statewide concerns with access to and from the national and global economy.
- **GA-Regional** airports support the local and regional economies and connect them to the State and national economies.
- **GA-Community** airports serve a supplemental role for the local economy and focus on providing aviation access for small business, recreational, and personal flying.
- **Local** airports, while serving a limited contributing role for the local economy, are considered to have local importance in supporting aviation activity.



INTERNATIONAL AIRPORTS

CATEGORY BENCHMARKS

Airside, landside, and terminal infrastructure needs are driven by demands which exceed the National Airports' benchmark requirements.

MINIMUM CRITERIA

As required by demand or opportunity

NATIONAL AIRPORTS

AIRPORT REFERENCE CODE
 RUNWAY LENGTH
 RUNWAY WIDTH
 TAXIWAY
 NAVIGATIONAL AID
 VISUAL AIDS
 LIGHTING
 WEATHER
 SERVICES

 FACILITIES

C-II or Design Aircraft
 Minimum 5,500'
 To Meet ARC
 Full Parallel
 Precision Approach
 MALS/R, GV/GIS
 MIRS*, Beacon, Windsock
 Automated Weather Reporting
 Phone, Restrooms, FBO, Maintenance, Jet Fuel, Ground Transportation, RCO/ATCT
 Modern Terminal, Aircraft Apron, Hangars
 Auto Parking

GENERAL AVIATION-REGIONAL AIRPORTS

AIRPORT REFERENCE CODE
 RUNWAY LENGTH
 RUNWAY WIDTH
 TAXIWAY
 NAVIGATIONAL AID
 VISUAL AIDS
 LIGHTING
 WEATHER
 SERVICES

 FACILITIES

B-II or Greater
 Minimum 5,000'
 To Meet ARC
 Partial Parallel
 Non-Precision-Straight In Approach
 GV/GIS
 MIRS, Beacon, Windsock
 Automated Weather Reporting
 Phone, Restrooms, FBO, Maintenance, Jet Fuel, Ground Transportation
 Terminal, Aircraft Apron, Hangars,
 Auto Parking

GENERAL AVIATION-COMMUNITY AIRPORTS

AIRPORT REFERENCE CODE
 RUNWAY LENGTH
 RUNWAY WIDTH
 TAXIWAY
 NAVIGATIONAL AID
 VISUAL AIDS
 LIGHTING
 SERVICES
 FACILITIES

B-I or Greater
 Minimum 3,700'
 Minimum 60'
 Turnarounds & Connector
 Non-Precision Approach
 GV/GIS
 MIRS, Beacon, Windsock
 Phone, Restrooms, Avgas
 Pilots Lounge, Aircraft Apron, Hangars,
 Auto Parking

LOCAL AIRPORTS

AIRPORT REFERENCE CODE
 RUNWAY LENGTH
 RUNWAY WIDTH
 TAXIWAY
 LIGHTING
 SERVICES
 FACILITIES

A-I or Turf
 Maintain Existing
 Minimum 60'
 Connector and/or Turnarounds
 Reflectors or LIRS, Beacon, Windsock
 Phone, Restrooms
 Aircraft Apron, Hangars, Auto Parking

Alabama's Airport System

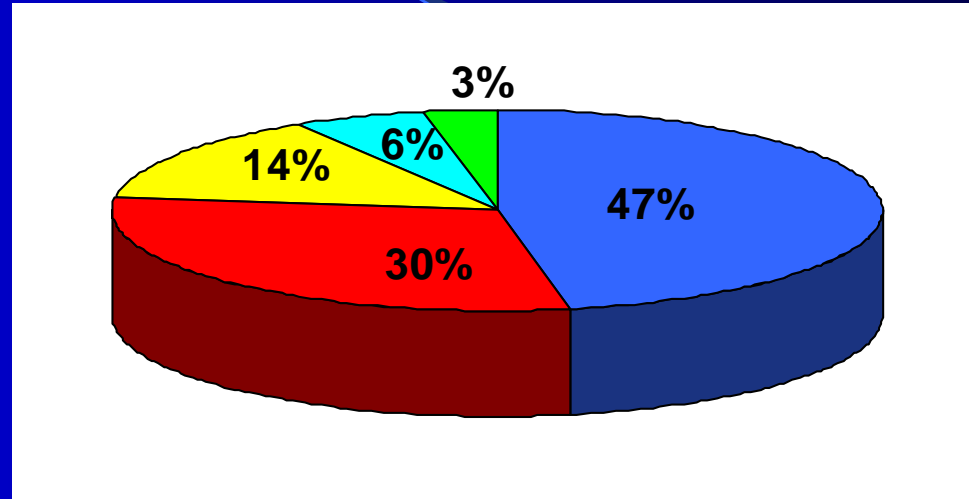
By the Numbers

- 76 Publicly owned, public use airports (cities, counties, airport authorities)
- 6 Commercial Service Airports
- 70 General Aviation Airports
- 150 (+/-) Heliports

Investment Needs

\$667 million over next 10 years to meet minimum standards of recommended system

International	\$313.8 million
National	\$200.9 million
GA-Regional	\$ 94.6 million
GA-Community	\$ 37.6 million
Local	\$ 20.4 million



\$493 million eligible for FAA Funding

Most significant cost items include hangar construction and pavement rehabilitation.

GRANT PROGRAM

➔ AIRPORT DEVELOPMENT FUND

- Fund generated by State taxes on aviation fuels
 - 3.5 cents/gallon for jet fuel
 - 9.5 cents/gallon for aviation fuels

Revenue Projected to be \$2.2 Million Annually

- Funds from this source may be used to match federal grants
- Not all airports are eligible for federal grants

Funding Alabama's Airport System

- Federal Aviation Administration – 90%
- Local Airport Operators – 10% (5% with state match)
- Aeronautics Bureau – May provide one-half of the local matching obligation, or 5% of the total project cost, depending on the availability of state funds

LANDING AREA INSPECTIONS

➤ CODE OF ALABAMA

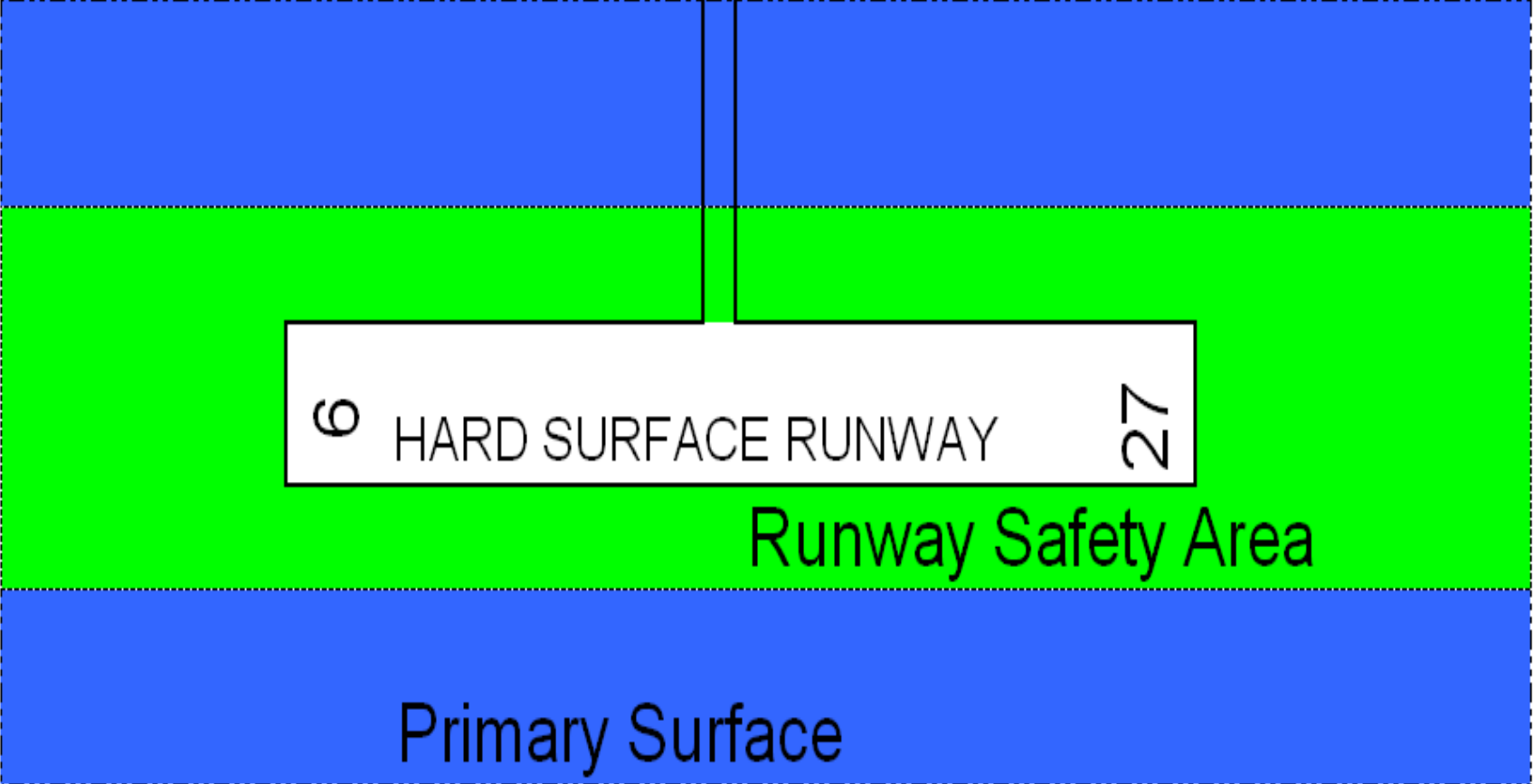
- Section 23-1-372 – Authority to approve proposed landing areas (airfields, heliports, etc.) & issue annual licenses
- Section 23-1-373 – Establishes criteria to evaluate proposed landing sites
- Section 23-1-374 – Procedures for revoking or not renewing airport licenses
- Section 23-1-375 – Operation of unlicensed airports prohibited
- Section 23-1-376 – Provides for public hearings regarding airport site approvals
- Section 23-1-377 – Exceptions to licensing requirements...
 - Personal Use – Property owner & immediate family
 - Facilities operated by the U.S. Government

AIRCRAFT PARKING APRON

6 HARD SURFACE RUNWAY 27

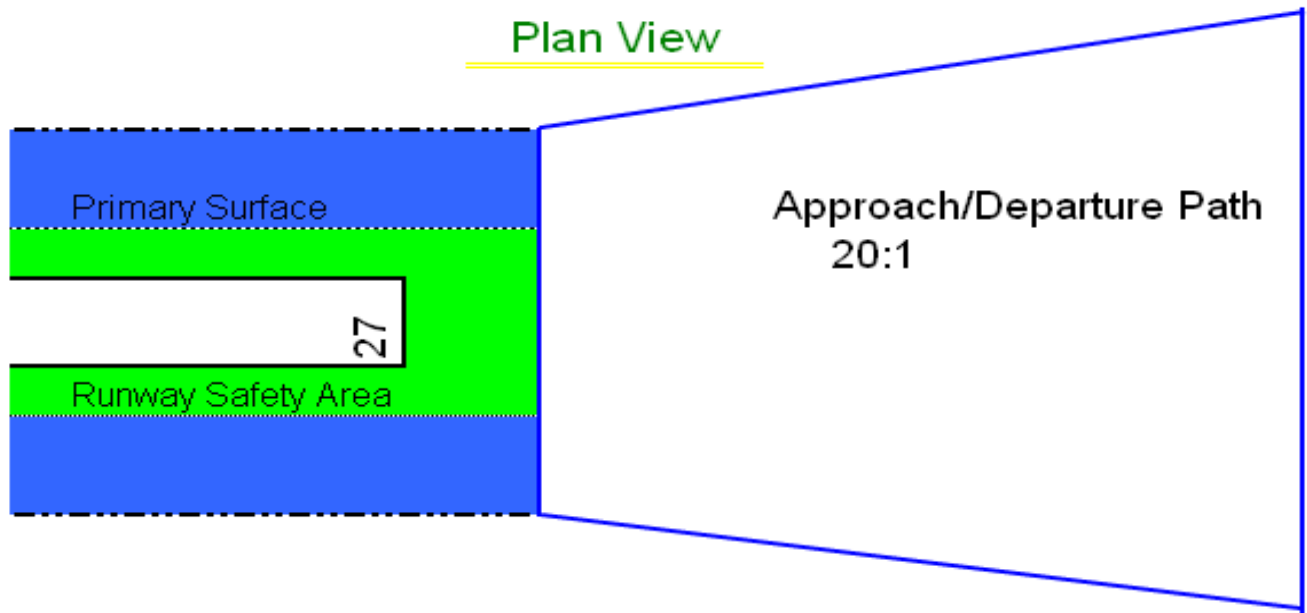
Runway Safety Area

Primary Surface

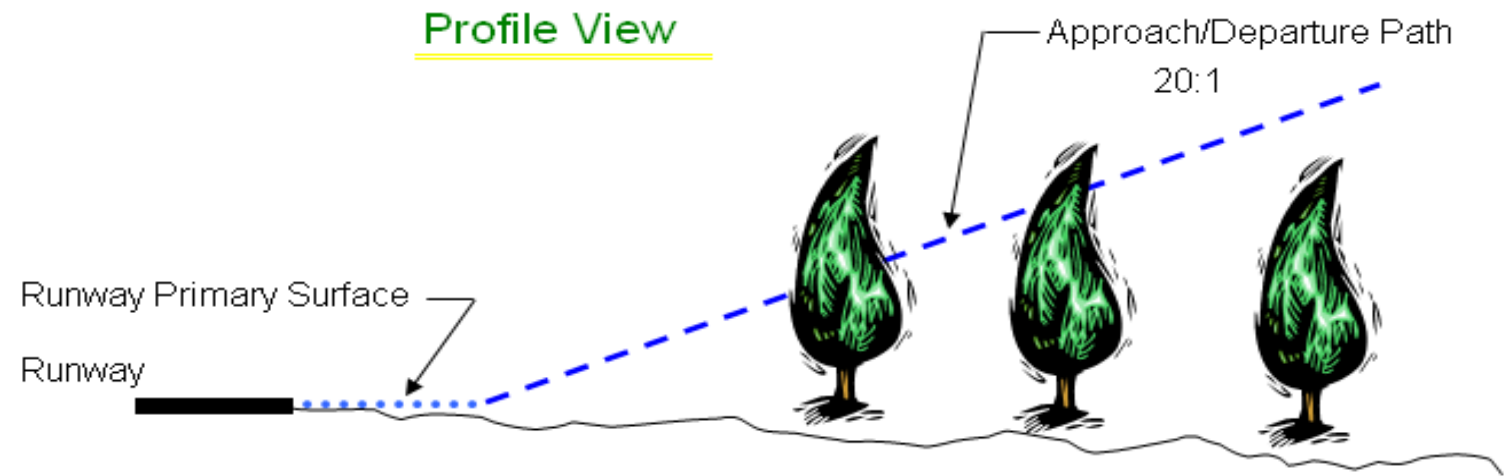


Approach and Departure Path Dimensions			
Inner Width	Outer Width	Length	Acreage
250 Feet	450 Feet	1,000 Feet	8.04 Acres

Plan View



Profile View









Runway Safety Area
Violations





































9

8

7

6

5

4

3

2

1

MADE IN JAPAN

KESON

10 THS & 100 THS FT.

6 3/4 FEET



ALABAMA'S GENERAL AVIATION SECURITY REQUIREMENTS

- ➔ The Aeronautics Bureau encourages airports to take appropriate steps to develop and implement security procedures at Alabama airports.
- ➔ To be eligible for state funding, the operator of an airport must prepare and implement a written airport security plan.
- ➔ Plan must be consistent with Security Guidelines for General Aviation Airports published by the TSA.



STATEWIDE PAVEMENT MAINTENANCE PLAN

➤ Completed in 2008

What did the Study Produce?

- STATEWIDE DATABASE OF PAVEMENT MAINTENANCE NEEDS, COSTS & SCHEDULES
- INDIVIDUAL REPORT FOR EACH AIRPORT WILL CONTAIN...
 - Projected Maintenance Schedule (optimized for all pavements)
 - Projected Cost
 - Written Pavement Maintenance Plan



WILDLIFE HAZARD ASSESSMENTS

- Wildlife hazards are a major safety issue for airports
- ALDOT coordinating with FAA to conduct Wildlife Hazard Assessments
- 5-7 Assessments per year being conducted under contract with USDA

UNMANNED AERIAL SYSTEMS

(The Drones are Coming)

- Governor's Executive Order of January 23, 2015 – Designated ALDOT Aeronautics Bureau as the Lead Agency for all Unmanned Aerial Systems
- Established an 8-member UAS Council composed of agency directors, legislative members, and an airport authority member
- Initial Focus – Prepare state agencies to operate sUAS aircraft

ACCOMPLISHMENTS

2000 - 2015

- Major Safety Discrepancies Have Been Resolved
 - 2000 – 63% of Alabama’s Public Use Airports Did Not Meet Minimum Licensing Standards
 - 2010-2015 – Approximately 10% Are Not Licensable in any Given Year – Due mainly to lack of routine maintenance
 - Merging the Aeronautics Department with ALDOT has been a Major Success
 - General Aviation Airports are Serving an Increasingly Important Role in Local Economic Development Efforts

AMERICAN SOCIETY OF CIVIL ENGINEERS

2015 REPORT CARD

- ASCE Measured/Reported on Alabama's Transportation Infrastructure
 - Roads – D+
 - Bridges – C-
 - Transit – D
 - AIRPORTS – B-

ASCE RECOMMENDATIONS

AIRPORTS

- Fund Aviation Initiatives that Help State Grow
 - Increase state funding for aviation in line with its economic benefit
- Consolidate Resources (Airports) Where Practical
 - We're doing that in West Alabama
- Save funds by repairing/maintaining before Major Repair is Needed (Preventive maintenance via pavement maintenance plans)
- Embrace Economic Recruiting