TN TDOT Department of Transportation

TASP TENNESSEE Aviation System Plan

Goals and Performance Measures

Overview

The Tennessee Department of Transportation Aeronautics Division (TDOT Aeronautics Division) initiated the development of the Tennessee Aviation System Plan (TASP) and companion Statewide Aviation Economic Impact Study to establish a systemwide inventory of needs and to provide context and justification for the continued development of the state's aviation system. Tennessee's last system plan was developed in 2001. Since then, guidance from the Federal Aviation Administration (FAA) through Advisory Circular 150/5070-7, *The Airport System Planning Process,* has changed. The TASP has been developed in accordance with the revised Advisory Circular.

This chapter introduces the TASP, specifically the process of selecting project goals and related performance measures which guide the development of the study. This chapter begins with an overview of airport system planning and the study design, which includes the TASP and the Statewide Aviation Economic Impact Study. After this explanation, this chapter explains the goals and performance measures that were collectively chosen to define the TASP. This discussion begins with outlining the airports involved in the study, before exploring each of the chosen goals of the study. This chapter concludes with the project's next steps.

Purpose of Airport System Planning

The process of aviation planning takes place at all levels of government, including federal, state, and local (airport). At the federal level, aviation system planning is conducted by the FAA primarily through the development of the National Plan of Integrated Airport Systems (NPIAS). The NPIAS identifies nearly 3,330 existing and proposed airports across the U.S. that are included in the national airport system, the roles they currently serve, and the amounts and types of airport development eligible for federal funding under the Airport Improvement Program (AIP). At the local (airport) level, aviation planning is accomplished primarily through the development and adoption of airport master plans and airport layout plans (ALPs). Airport master plans and ALPs guide the development of individual airports to better serve their local communities and provide service to the statewide and nationwide aviation systems.

At the state level, aviation planning is accomplished through statewide aviation system plans. Similar to other modal transportation plans, such as long-range statewide transportation plans, aviation system plans establish goals for the future development and operation of airport facilities and services that serve the general public. These goals are often established with the input of various stakeholders and fuel the development of recommendations to meet system needs when the system plan is complete. This planning effort is critical for the FAA to benchmark state needs, and for states to allocate limited resources in an effective and efficient manner.

Study Process

As previously noted, this project includes two separate but related studies. The processes for completing both the TASP and the Statewide Aviation Economic Impact Study are detailed in the following sections. While each study process is shown separately, these two studies were completed in conjunction with one another. Though both studies are highlighted in this section, this chapter focuses primarily on elements of the TASP.

Tennessee Aviation System Plan (TASP)

As previously noted, the TASP represents the first system plan that Tennessee has completed following the FAA's updated guidance. Advisory Circular 150/5070-7, Change 1, primarily enhances the FAA review of airport system planning studies and requires such plans to include additional analyses beyond what has traditionally been completed as a part of an aviation system plan. These additional analyses include evaluating airport needs relative to multimodal planning and considering environmental conditions at the statewide level. ***Figure 1*** illustrates the TASP process which includes these additional components, as well as showing that public consultation occurs throughout the life of the project. This chapter focuses on the first step of this project, "Establish Goals, Performance Measures, and Indicators," outlined in red below.

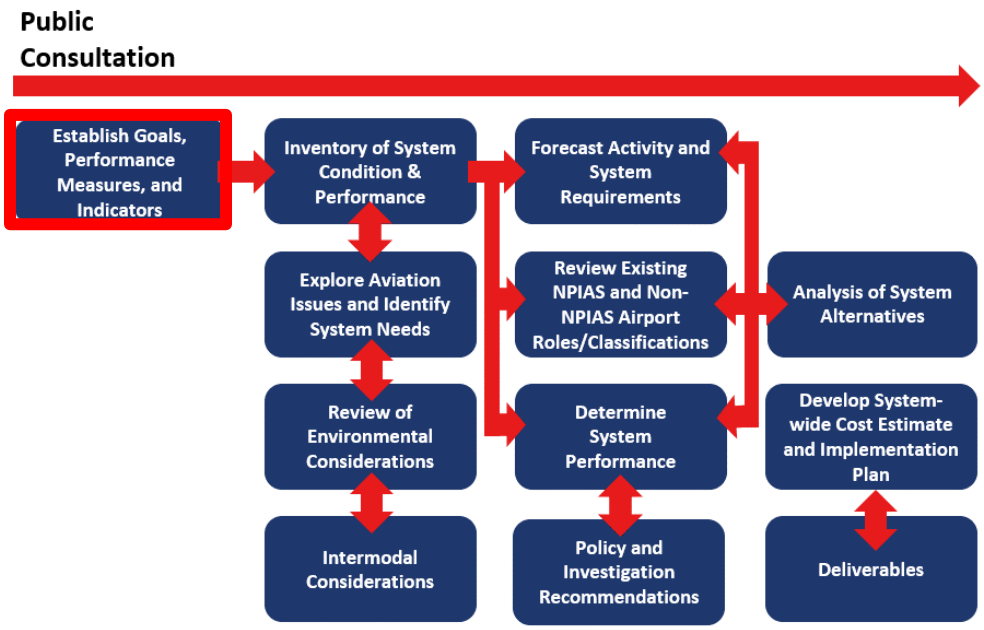


Figure 1: TASP Process, Source: Kimley-Horn

Statewide Aviation Economic Impact Study

An economic impact study evaluates the impact a particular industry or industries has on a municipality, region, or state. As such, the Tennessee's Statewide Aviation Economic Impact Study evaluates the impact the aviation industry has on Tennessee's local, regional, and statewide economies. ***Figure 2*** illustrates the five-step process for developing the Statewide Aviation Economic Impact Study.

Figure 2: Statewide Aviation Economic Impact Study Process

An economic impact study should ideally evaluate both quantitative impacts and qualitative impacts. Quantitative impacts include the actual economic contribution of Tennessee's airports in dollars and jobs. The quantitative impact calculation also assesses the value of key aviation activities supported by Tennessee's airports, such as aerial agricultural application and freight and cargo.

Qualitative impacts encompass quality of life factors and tell the story of the aviation system's importance beyond the numbers. These activities may include medical evaluation and aerial firefighting, among others, for which the total impact or benefit can't necessarily be quantified in numbers. Additional context and information related to the Statewide Aviation Economic Impact Study will be included in the Technical Report developed for the Statewide Aviation Economic Impact Study component of the overall TASP.

System Airports

Airports can be categorized in a variety of ways, but typically only publicly-owned, public-use airports are considered in federal and state planning efforts, such as the NPIAS and statewide aviation system plans. This is because publicly-owned, public-use airports have the greatest impact on the public's access to aviation and are generally eligible for federal and state funding.

Airports can further be categorized as commercial service, which are those airports that provide regularly scheduled passenger service, or general aviation (GA), which are airports that provide other aviation services. Therefore, there were many factors to consider when deciding what airports to include in the TASP. Ultimately, TDOT Aeronautics Division selected 78 public-use airports for the TASP, including five commercial service airports and 73 GA airports.

All selected airports are open for use by the public and are eligible for state funding. Of the 78 airports in the system, 69 are included in the NPIAS and are therefore eligible for federal funding. The NPIAS airports include all five commercial service airports and 64 GA airports. There are a range of services provided by Tennessee's airports. The commercial service airports range from Nashville International, serving a wide range of customers, to Tri-Cities, which plays an important role serving a smaller market. Tennessee's GA airports also provide a range of services, from business and medical services to hobby flying. ***Table 1*** provides a summary of the facilities that are included in the TASP.

Table 1: Airports Included in TASP

Associated City	FAA ID	Airport Name
Athens	MMI	McMinn County
Benton	92A	Chilhowee Gliderport
Bolivar	M08	William L. Whitehurst Field

Associated City	FAA ID	Airport Name
Bristol/Johnson/Kingsport*	TRI*	Tri-Cities*
Camden	0M4	Benton County
Centerville	GHM	Centerville Municipal
Chattanooga	1A0	Dallas Bay Sky Park
Chattanooga*	CHA*	Lovell Field*
Clarksville	CKV	Outlaw Field
Cleveland	RZR	Cleveland Regional
Clifton	M29	Hassell Field
Collegedale	FGU	Collegedale Municipal
Columbia/Mount Pleasant	MRC	Maury County
Copperhill	1A3	Martin Campbell Field
Covington	M04	Covington Municipal
Crossville	CSV	Crossville Memorial – Whitson Field
Dayton	2A0	Mark Anton
Dickson	M02	Dickson Municipal
Dyersburg	DYR	Dyersburg Regional
Eagleville	50M	Puckett Gliderport
Elizabethton	0A9	Elizabethton Municipal
Fayetteville	FYM	Fayetteville Municipal
Gainesboro	1A7	Jackson County
Gallatin	XNX	Music City Executive Airport
Greeneville	GCY	Greeneville Municipal Airport
Halls	M31	Arnold Field
Hohenwald	0M3	John A. Baker Field
Humboldt	M53	Humboldt Municipal
Huntingdon	HZD	Carroll County
Jacksboro	JAU	Colonel Tommy C. Stiner
Jackson	MKL	McKellar-Sipes Regional
Jamestown	2A1	Jamestown Municipal
Jasper	APT	Marion County – Brown Field
Johnson City	0A4	Johnson City
Knoxville	DKX	Knoxville Downtown Island
Knoxville*	TYS*	McGhee Tyson*
Lafayette	3M7	Lafayette Municipal
Lawrenceburg	2M2	Lawrenceburg-Lawrence County
Lebanon	M54	Lebanon Municipal
Lewisburg	LUG	Ellington
Lexington-Parsons	PVE	Beech River Regional
Linden	M15	James Tucker
Livingston	8A3	Livingston Municipal

Associated City	FAA ID	Airport Name
Madisonville	MNV	Monroe County
McKinnon	M93	Houston County
McMinnville	RNC	Warren County Memorial
Memphis	M01	General Dewitt Spain
Memphis*	MEM*	Memphis International*
Millington	2M8	Charles W Baker
Millington	NQA	Millington-Memphis
Morristown	MOR	Moore-Murrell
Mountain City	6A4	Johnson County
Murfreesboro	MBT	Murfreesboro Municipal
Nashville	JWN	John C. Tune
Nashville*	BNA*	Nashville International*
Oneida	SCX	Scott Municipal
Paris	PHT	Henry County
Portland	1M5	Portland Municipal
Pulaski	GZS	Abernathy Field
Rockwood	RKW	Rockwood Municipal
Rogersville	RVN	Hawkins County
Savannah	SNH	Savannah-Hardin County
Selmer	SZY	Robert Sibley
Sevierville	GKT	Gatlinburg-Pigeon Forge
Sewanee	UOS	Franklin County
Shelbyville	SYI	Bomar Field – Shelbyville Municipal
Smithville	0A3	Smithville Municipal
Smyrna	MQY	Smyrna
Somerville	FYE	Fayette County
Sparta	SRB	Upper Cumberland Regional
Springfield	M91	Springfield Robertson County
Tazewell	3A2	New Tazewell Municipal
Tiptonville	0M2	Reelfoot Lake
Trenton	TGC	Gibson County
Tullahoma	THA	Tullahoma Regional/William Northern Field
Union City	UCY	Everett-Stewart Regional
Waverly	0M5	Humphreys County
Winchester	BGF	Winchester Municipal

[1]An asterisk (*) indicates a commercial service airport. All other airports are general aviation (GA).

Advisory Committee (AC)

A public involvement process that is implemented throughout the entirety of the system planning process is critical to the success and support of the TASP. Throughout the life of the TASP, a comprehensive public involvement process was implemented, including statewide site visits to

airports, stakeholder interviews, AC meetings, TDOT Aeronautics Division meetings, FAA meetings, and presentations to the Aeronautics Commission. This engagement process is crucial to the development of a TASP that reflects the considerations of those who use and depend on air transportation in Tennessee.

One of the key components of the public involvement process is the establishment and implementation of a TASP AC. In coordination with TDOT Aeronautics Division, the project team organized an AC that includes members from a diverse cross section of agencies and entities, including the Tennessee Aeronautics Commission, Tennessee airports (both commercial service and GA), Metropolitan Planning Organizations (MPOs), and other TDOT planning offices. Each of the 17 AC participants are listed in ***Table 2***. These individuals were selected to help the project team validate and verify the TASP Goals and provide input on the data that was collected as part of this project. The AC met, in-person, throughout the life of the TASP to provide continuous feedback on all elements of the project as well as to reach consensus on the findings and recommendations of the TASP. The AC was instrumental in establishing the goals discussed later in this chapter.

Table 2: AC Participants

AC Member	Organization
Dan Cogan	Elizabethton Municipal Airport
Doug Kibbey	Hassell Field
Patrick Wilson	McGhee Tyson Airport
Pragati Srivastava	Memphis Metropolitan Planning Organization
Roy Remington	Millington – Memphis Airport; Tennessee Aviation Association
Robert Ramsey	Nashville International Airport & John C. Tune Airport
John Black	Smyrna/Rutherford County
Dean Selby	Upper Cumberland Regional Airport
Jamal Stovall	FAA Memphis ADO
Chad Reese	Southeast Tennessee Development District
Michelle Frazier	TDOT Aeronautics Division
John Paul Saalwaechter	TDOT Aeronautics Division
Amy Kosanovic	TDOT – Long Range Planning Division
David Lee	TDOT – Long Range Planning Division
Matthew Cushing	TDOT – Multimodal Division
Danielle Hagewood	TDOT Strategic Transportation Investments Division
George Huddleston	Tennessee Aeronautics Commission
Kirk Huddleston	Tennessee Aeronautics Commission
Dan Mahoney	Tennessee Aeronautics Commission
Nisha Powers	Tennessee Aeronautics Commission
Butch West	Tennessee Aeronautics Commission

Selection of Project Goals

Critical to the successful development of a system plan is the selection of project goals that serve as the framework for the plan. Goals determine how TDOT Aeronautics Division measures and evaluates the performance of Tennessee's aviation system and ultimately serves as the basis from which TASP recommendations are made. One of the initiatives of the TASP is to better align

with existing statewide planning documents, including the Tennessee 25-Year Transportation Policy Plan (Policy Plan). Per TDOT,

> *"The Tennessee Department of Transportation has created a new long-term vision for transportation in Tennessee. The 25-Year Long-Range Transportation Policy Plan provides the foundation for prioritizing transportation investments across the State. This new plan will aid in accomplishing TDOT's mission to serve the public by providing the best multimodal transportation system in the nation…TDOT has a long history of planning for multimodal transportation needs within the State. TDOT's 25-Year Long-Range Transportation Policy Plan is an important document for the Department and its many stakeholders, as the Plan allows TDOT to make key long-term funding and policy decisions about transportation investments throughout Tennessee, today and in the future..."*

Through the development of the Policy Plan, a set of Guiding Principles were established to guide the project's implementation. Per the Policy Plan,

> *"The Guiding Principles represent seven interrelated value statements that express the major priorities of TDOT and provide tangible actions as the Department works towards their vision."*

To ensure consistency with the Policy Plan, the goals developed as part of the TASP each directly relate to at least one of the Guiding Principles included in the Policy Plan. ***Table 3*** provides a summary and comparison of the Policy Plan Guiding Principles to the TASP Goals.

Table 3: Comparison Between TASP Goals and Guiding Principles

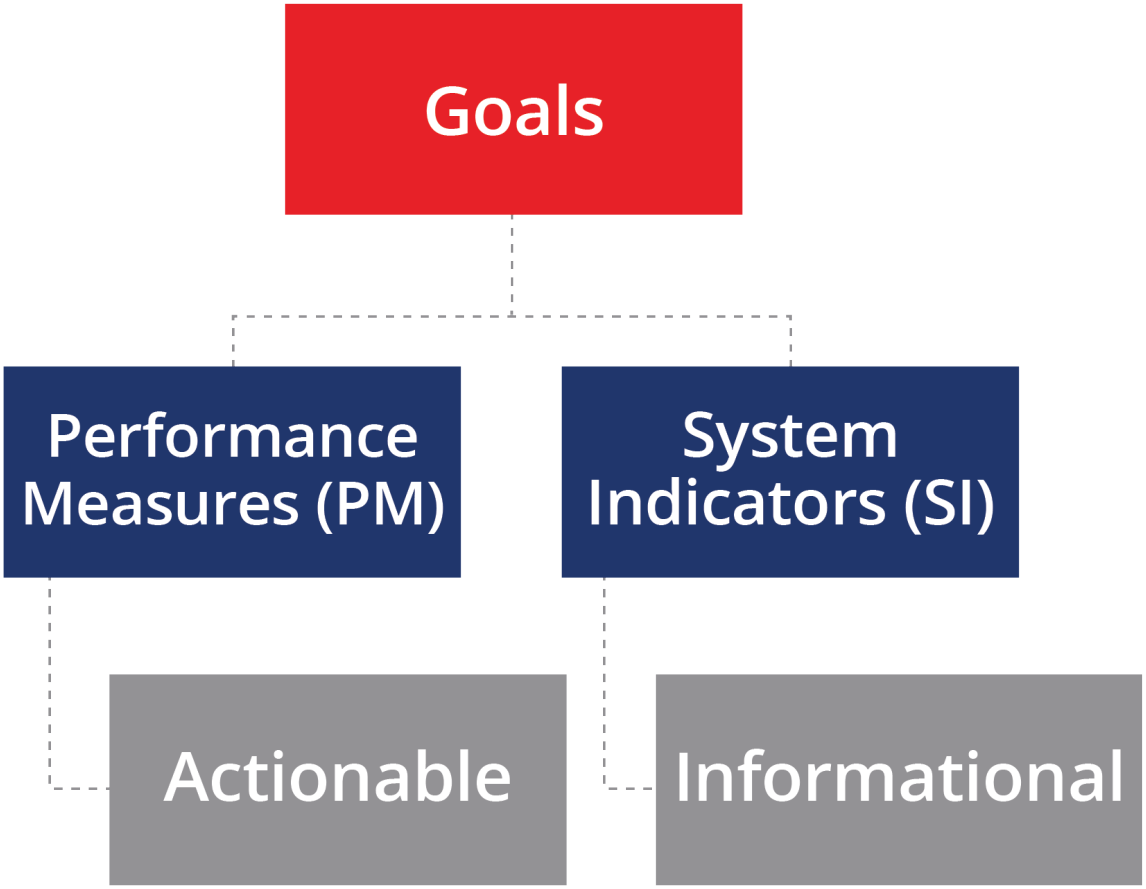
Tennessee 25-Year Transportation Policy Plan's Guiding Principles	TASP Goals
◆ Preserve and manage the existing system	1. Protect and preserve existing airport infrastructure by prioritizing airport system needs
◆ Provide for the efficient movement of people and freight	2. Provide an airport system with available and cost-efficient transportation options for moving people and freight
◆ Maximize safety and security	3. Improve the safety and security of airport system users
◆ Protect natural, cultural, and environmental resources ◆ Build partnerships for sustainable and livable communities	4. Maximize federal, state, and local resources to meet the airport system needs and minimize environmental impacts
◆ Support the state's economy	5. Invest in the airport system and the aviation workforce to support economic growth and competitiveness

The five TASP Goals provided in ***Table 3*** represent a renewed focus by the TDOT Aeronautics Division to more actively engage with the overarching transportation planning initiatives conducted by TDOT. With the project Goals selected, the next phase of the process was to determine the Performance Measures and System Indicators, along with the associated data

collection effort, that will be used to measure TDOT Aeronautics Division's ability to meet and support their identified Goals.

Selection of Performance Measures and System Indicators

Following the selection of the TASP Goals, the project team evaluated various Performance Measures (PMs) and System Indicators (SIs). The hierarchy of goals, PMs, and SIs is illustrated in ***Figure 3***. Generally, PMs quantitatively assess specific Goals and allow for the evaluation of the state's system performance and are elements of the system that can be influenced by state funding or policy decisions. Similarly, SIs quantitatively and qualitatively assess specific Goals; however, SIs are informational, not actionable, and are not intended to be influenced by policy or funding decisions made by TDOT Aeronautics Division.



To assist in the identification of PMs and SIs, the project team developed a list of example PMs

Figure 3: Goals, PMs, and SIs

and SIs that have been used in the aviation system plans of 32 other states. It is important to note that of the 18 states that were not included in this list, 13 did not have PMs or SIs as defined in the TASP and five did not have documented system plans. In total, over 250 possible PMs and SIs across 12 categories were provided to the TDOT Aeronautics Division for consideration. While these were not the only categories that could be developed from the 250 possible PMs and SIs,

they best represent the data collected. ***Table 4*** provides an example from each of these categories. For instance, one of the categories for PMs and SIs was "Airline/Airport Service Accessibility." An example from this category would be "Accessibility to any commercial service airport within a 45-minute drive time and/or any general aviation airport within a 30-minute drive time."

Table 4: Performance Measures and System Indicators Categories

Categories for Performance Measures/System Indicators	Examples
Air Cargo/Economic Impact/Misc.	◆ Percent of airports with air cargo/freight activities ◆ Dollars of direct and indirect economic impact in the state from aviation ◆ Percent of system airports with expansion/ development potential
Airline/Airport Service Accessibility	◆ Accessibility to any commercial service airport within a 45-minute drive time and/or any general aviation airport within a 30-minute drive time ◆ Percent of population within 30 minutes of a NPIAS airport ◆ Percent of system airports that offer aircraft charter services
Airport Zoning Ordinances, Land Use, and Planning Documents	◆ Number of system airports with airport included in local comprehensive/land use plan ◆ Percent of airports controlling all primary runway end runway protection zones (RPZs) ◆ Percent of system airports that have current (within five years) airport master plans/ALPs ◆ Airports within adopted height and land use zoning for impacted jurisdiction
Airport Operations and Development	◆ Airports with access to 24-hour aircraft fuel ◆ Percent of system airports, by category, that operate at 60 percent or more of their annual operational capacity (ASV), current and 2020 ◆ Number of system airports with covered overnight storage available ◆ Airport manager present at airport
Approaches	◆ Airports with a published approach ◆ Airports with a precision instrument or vertical guidance approach ◆ Percent of system airports with displaced thresholds
Certificates/Licenses/ Trainings	◆ Percent of airports supporting flight training ◆ The number of pilot certificates held (by category) ◆ Percent of system airports that have aviation maintenance and repair

Categories for Performance Measures/System Indicators	Examples
Communication/Outreach	◆ Percent of system airports that have established public outreach or community educational programs ◆ Percent of system airports that host annual air shows or fly-ins ◆ Percent of system airports that have an educational outreach program that illustrate aviation career opportunities to students
Emergency Preparedness/ Medical/Weather	◆ Coverage by airports with onsite weather reporting service/equipment ◆ Percent of airports that support fire fighting ◆ Percent of airports within a 15-minute drive time of a hospital
Environmental/Wildlife Management	◆ Airports with an adopted wildlife management plan ◆ Percent of applicable system airports with a Vegetation Management Plan (VMP) ◆ Percent of airports that have a storm water pollution prevention plan (SWPPP)
Intermodal Transportation	◆ Percent of airports with a courtesy car and/or rental car available ◆ Percent of system airports accessed by roads within the National Highway System ◆ Percent of system airports that provide intermodal options for their community, including public transportation interfaces at the airports (i.e. bus)
Runways and Taxiways	◆ Airports with primary runways meeting a minimum pavement condition index (PCI) ◆ Provide an airport system with adequate runway lengths, taxiway systems, and lighting ◆ Percent of airports meeting FAA design standards for current operations
Safety and Security	◆ Airports with compliant runway safety areas ◆ Airports with an adopted security plan ◆ Percent of system airports with access controls to the airport operating areas

With this information, the TDOT Aeronautics Division staff held a series of internal workshops to select and finalize the PMs and SIs that would be included in the TASP. As a result of these meetings, a set of over 70 PMs and SIs were selected for validation by the AC. The following sections explore these performance measures and system indicators in more detail, as well as their reception with the AC.

Advisory Committee Review of Goals, Performance Measures, and System Indicators

The AC provided input on the PMs and SIs for each of the five selected TASP Goals. An analysis of the AC's evaluation is included beneath the respective Goal as well as the purpose of the Goals, PMs, and SIs. ***Please note, for four of the five TASP Goals, a column of 'Other Data' is shown. This data is of interest to the TDOT Aeronautics Division to collect but is not formally included in the analysis or documentation of the TASP.*** Goals and performance measures are also denoted as either "internal" or "external." Internal goals and PMs are for the use and evaluation solely by TDOT Aeronautics Division and will not be reported in the final TASP document. External goals and PMs, on the other hand, will be reported.

To gather input from the AC, an interactive exercise was conducted with the AC to gauge the prioritization of different Goals, PMs, and SIs. AC members individually prioritized Goals, PMs, and SIs, then prioritized them as a group, based on what was important to them and the organizations they represented. Additionally, AC members were encouraged to make suggestions concerning additional PMs and SIs for inclusion in the project, as well as changing the designation of PMs and SIs (ex: change an SI to a PM). The following pages provides an overview of this exercise, as well as presenting the final TASP Goals, PMs, and SIs.

GOAL #1: PROTECT AND PRESERVE EXISTING AIRPORT INFRASTRUCTURE BY PRIORITIZING AIRPORT SYSTEM NEEDS.

The purpose of Goal #1 is to maintain airport infrastructure by providing information to TDOT Aeronautics Division related to where the most central infrastructure needs exist. This Goal enables Tennessee airports to preserve current assets and infrastructure while taking statewide capacity and modernization needs into consideration.

The AC's discussion for Goal #1's PMs and SIs, as shown in ***Figure 4***, resulted in the following changes:

- The AC considered changing the SI: Number of airports with a layout plan less than ten years old to a PM
  - Based on discussions with the TDOT Aeronautics Division, the project team decided to keep this item as an SI
- Four new SIs were recommended by the AC
  - Aircraft fleet mix, statewide
  - Number of operations, by airport, statewide
  - Fuel sales, by airport, statewide
  - Hangar waitlist, by airport, statewide
- These additional SIs were confirmed and added by TDOT Aeronautics Division.

The final PMs and SIs associated with TASP Goal #1 are shown in ***Table 5***.

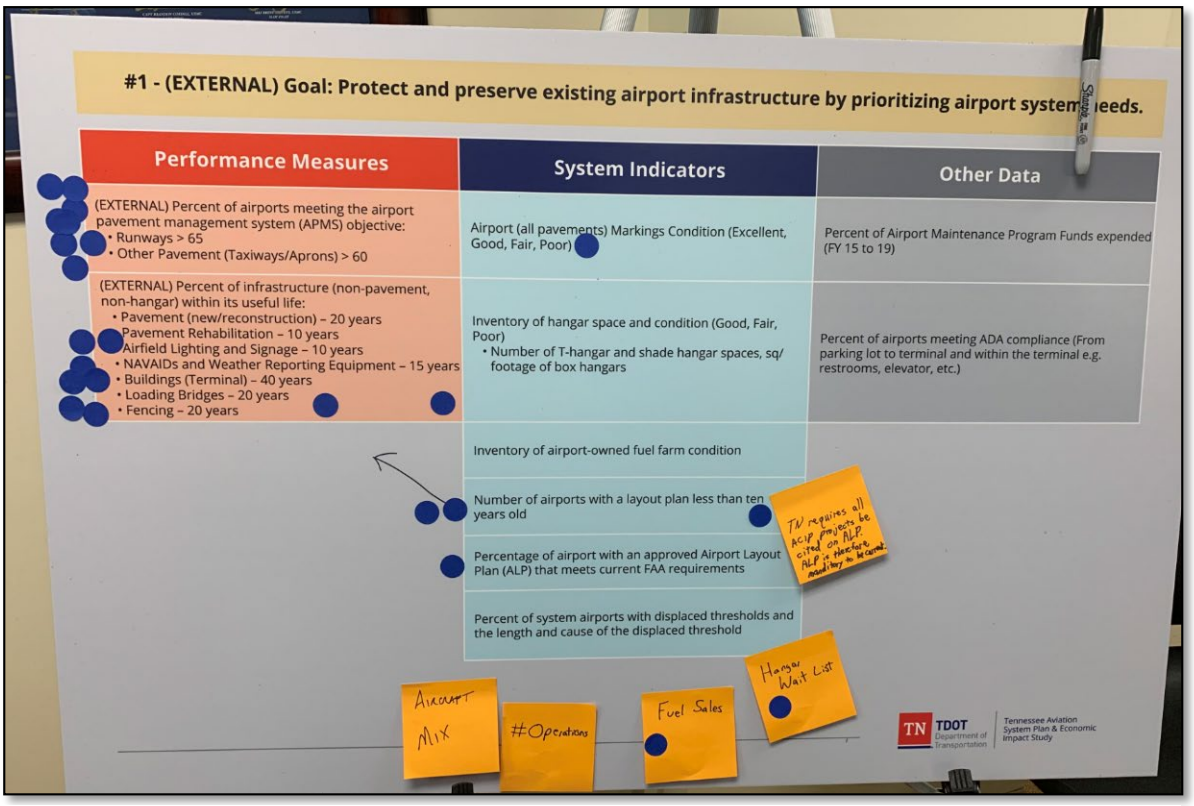


Figure 4: Results from the Goal #1 Exercise

Table 5: Goal #1 Performance Measures, System Indicators, and Other Data

#1 - (EXTERNAL) Goal: Protect and preserve existing airport infrastructure by prioritizing airport system needs.

Performance Measures	System Indicators	Other Data
(EXTERNAL) Percent of airports meeting the airport pavement management system (APMS) objective: • Runways > 65 • Other Pavement (Taxiways/Aprons) > 60	Airport (all pavements) Markings Condition (Excellent, Good, Fair, Poor)	Percent of Airport Maintenance Program Funds expended (FY 15 to 19)
(EXTERNAL) Percent of infrastructure (non-pavement, non-hangar) within its useful life: • Pavement (new/reconstruction) – 20 years • Pavement Rehabilitation – 10 years • Airfield Lighting and Signage – 10 years • NAVAIDs and Weather Reporting Equipment – 15 years • Buildings (Terminal) – 40 years • Loading Bridges – 20 years • Fencing – 20 years	Inventory of hangar space and condition (Good, Fair, Poor) • Number of T-hangar and shade hangar spaces, sq/ footage of box hangars	Percent of airports meeting ADA compliance (From parking lot to terminal and within the terminal e.g. restrooms, elevator, etc.)
	Inventory of airport-owned fuel farm condition	
	Number of airports with a layout plan less than ten years old	
	Percentage of airport with an approved Airport Layout Plan (ALP) that meets current FAA requirements	
	Percent of system airports with displaced thresholds and the length and cause of the displaced threshold	
	Aircraft fleet mix statewide	
	Number of operations, by airport, statewide	
	Fuel sales, by airport, statewide	
	Hangar waitlist, by airport, statewide	

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GOAL #2: PROVIDE AN AIRPORT SYSTEM WITH AVAILABLE AND COST-EFFICIENT TRANSPORTATION OPTIONS FOR MOVING PEOPLE AND FREIGHT.

The purpose of Goal #2 is to assess Tennessee's resident and visitor access to airport services. This goal enables Tennessee to improve airport accessibility by contributing to the state's appropriate aviation facility coverage, as well as by integrating multimodal transportation systems with the airport system.

The AC's discussion for Goal #2's PMs and SIs, as shown in ***Figure 5***, resulted in the following changes.

- The AC considered changing the SI to a PM: Does the airport have enough apron space to park transient aircraft on an average day?
  - Based on discussions with the TDOT Aeronautics Division, the project team decided to keep this item as an SI
- There was no other discussion related to Goal #2

The final PMs and SIs associated with TASP Goal #2 are shown in ***Table 6***.

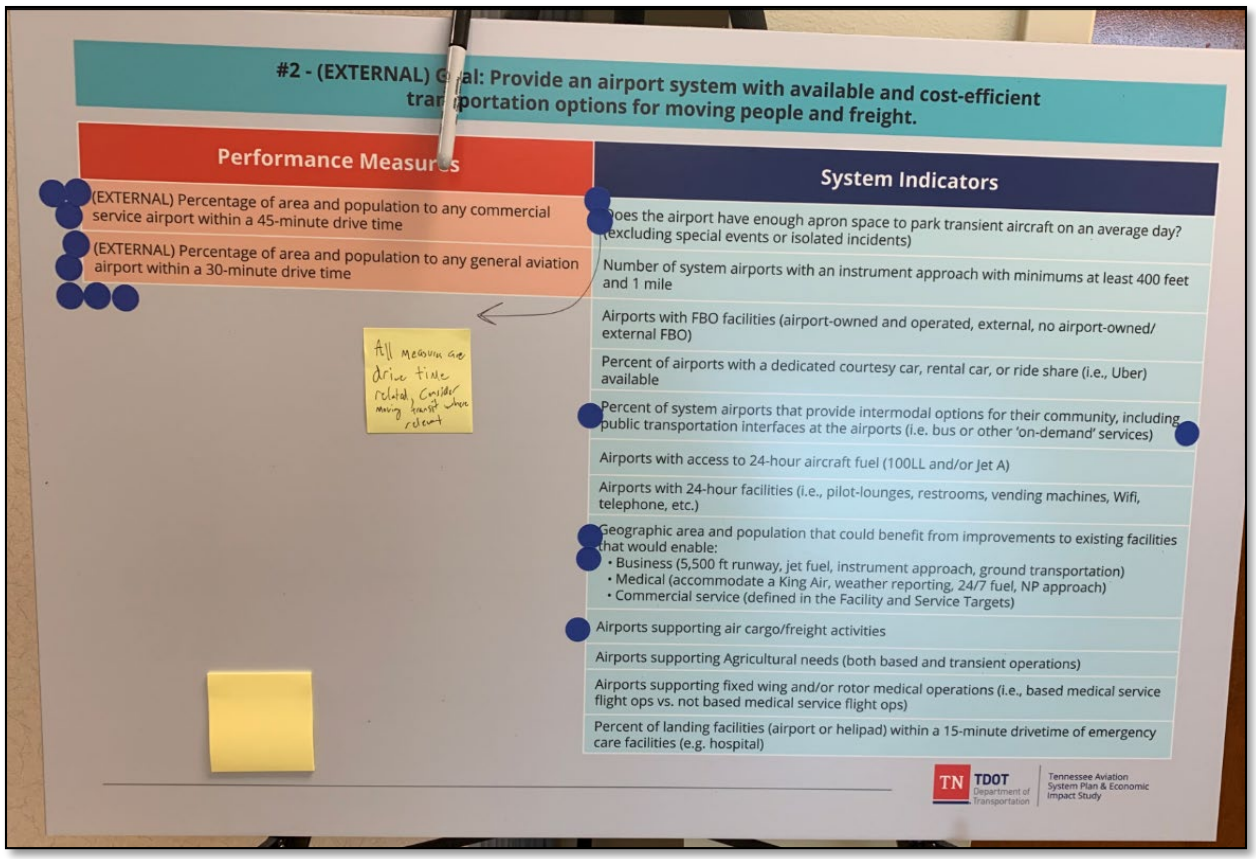

Figure 5: Results from the Goal #2 Exercise

Table 6: Goal #2 Performance Measures, System Indicators, and Other Data

#2 - (EXTERNAL) Goal: Provide an airport system with available and cost-efficient transportation options for moving people and freight.

Performance Measures	System Indicators
(EXTERNAL) Percentage of area and population to any commercial service airport within a 45-minute drive time	Does the airport have enough apron space to park transient aircraft on an average day? (excluding special events or isolated incidents)
(EXTERNAL) Percentage of area and population to any general aviation airport within a 30-minute drive time	Number of system airports with an instrument approach with minimums at least 400 feet and 1 mile
	Airports with FBO facilities (airport-owned and operated, external, no airport-owned/ external FBO)
	Percent of airports with a dedicated courtesy car, rental car, or ride share (i.e., Uber) available
	Percent of system airports that provide intermodal options for their community, including public transportation interfaces at the airports (i.e. bus or other 'on-demand' services)
	Airports with access to 24-hour aircraft fuel (100LL and/or Jet A)
	Airports with 24-hour facilities (i.e., pilot-lounges, restrooms, vending machines, Wifi, telephone, etc.)
	Geographic area and population that could benefit from improvements to existing facilities that would enable: • Business (5,500 ft runway, jet fuel, instrument approach, ground transportation) • Medical (accommodate a King Air, weather reporting, 24/7 fuel, NP approach) • Commercial service (defined in the Facility and Service Targets)
	Airports supporting air cargo/freight activities
	Airports supporting Agricultural needs (both based and transient operations)
	Airports supporting fixed wing and/or rotor medical operations (i.e., based medical service flight ops vs. not based medical service flight ops)
	Percent of landing facilities (airport or helipad) within a 15-minute drivetime of emergency care facilities (e.g. hospital)

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GOAL #3: IMPROVE THE SAFETY AND SECURITY OF AIRPORT SYSTEM USERS.

The purpose of Goal #3 is to support the adoption and implementation of safety and security initiatives at airports. This Goal enables Tennessee airports to minimize airport incidents and protect their users, employees, and general public from security threats.

The AC's discussion for Goal #3's PMs and SIs, as shown in ***Figure 6***, resulted in the following changes.

- The AC considered changing the SI to a PM: Number of system airports with a full parallel taxiway on the primary runway
  - Based on discussions with the TDOT Aeronautics Division, the project team decided to keep this item as an SI

The final PMs and SIs associated with TASP Goal #3 are shown in ***Table 7***.

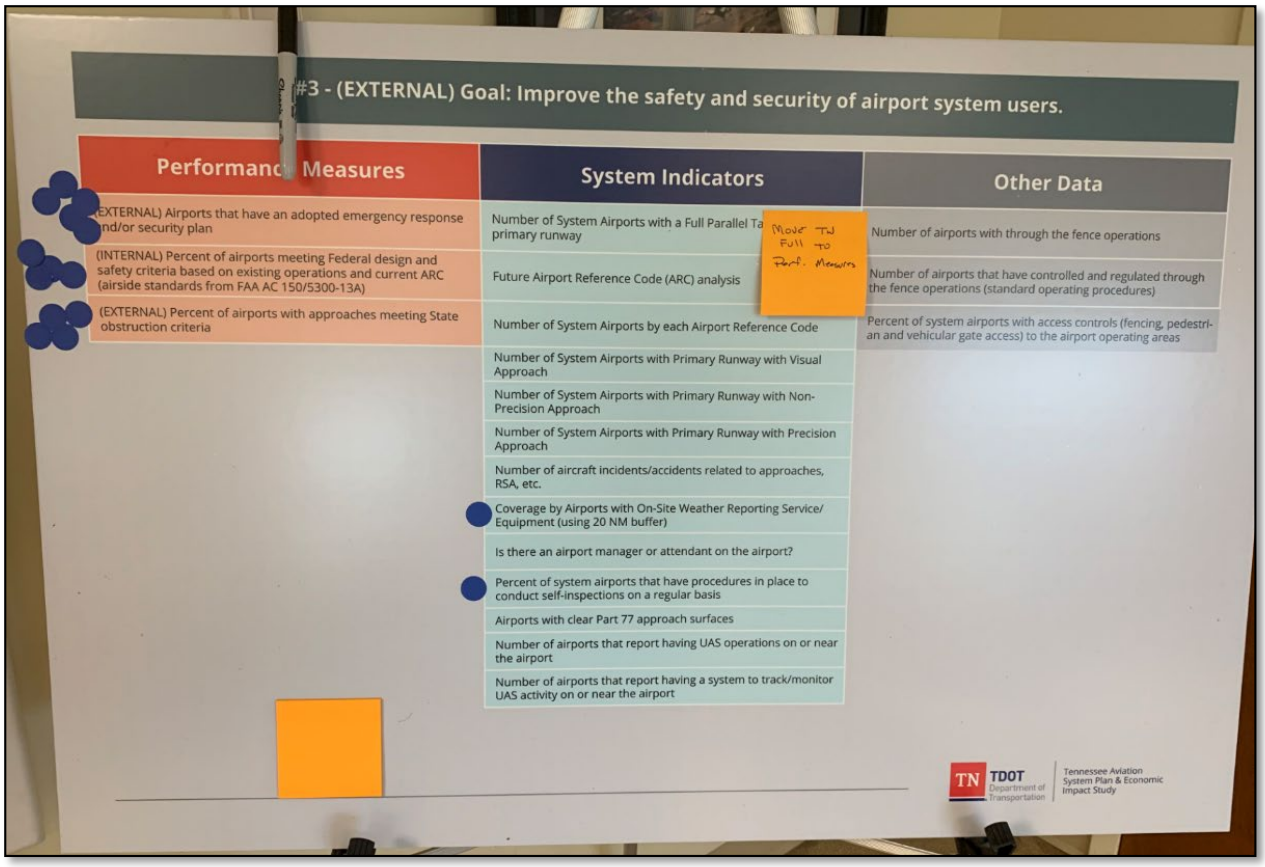

Figure 6: Results from the Goal #3 Exercise

Table 7: Goal #3 Performance Measures, System Indicators, and Other Data

#3 - (EXTERNAL) Goal: Improve the safety and security of airport system users.

Performance Measures	System Indicators	Other Data
(EXTERNAL) Airports that have an adopted emergency response and/or security plan	Number of System Airports with a Full Parallel Taxiway on the primary runway	Number of airports with through the fence operations
(INTERNAL) Percent of airports meeting Federal design and safety criteria based on existing operations and current ARC (airside standards from FAA AC 150/5300-13A)	Future Airport Reference Code (ARC) analysis	Number of airports that have controlled and regulated through the fence operations (standard operating procedures)
(EXTERNAL) Percent of airports with approaches meeting State obstruction criteria	Number of System Airports by each Airport Reference Code	Percent of system airports with access controls (fencing, pedestrian and vehicular gate access) to the airport operating areas
	Number of System Airports with Primary Runway with Visual Approach	
	Number of System Airports with Primary Runway with Non-Precision Approach	
	Number of System Airports with Primary Runway with Precision Approach	
	Number of aircraft incidents/accidents related to approaches, RSA, etc.	
	Coverage by Airports with On-Site Weather Reporting Service/ Equipment (using 20 NM buffer)	
	Is there an airport manager or attendant on the airport?	
	Percent of system airports that have procedures in place to conduct self-inspections on a regular basis	
	Airports with clear Part 77 approach surfaces	
	Number of airports that report having UAS operations on or near the airport	
	Number of airports that report having a system to track/monitor UAS activity on or near the airport	
	Number of airports with a valid airport license/conditional airport license issued by TDOT Aeronautics	

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GOAL #4: MAXIMIZE FEDERAL, STATE, AND LOCAL RESOURCES TO MEET THE AIRPORT SYSTEM NEEDS AND MINIMIZE ENVIRONMENTAL IMPACTS.

The purpose of Goal #4 is to ensure Tennessee airports are optimally utilizing available resources while minimizing environmental impacts.

The AC's discussion for Goal #4's PMs and SIs, as shown in ***Figure 7***, resulted in the following changes.

- Of the three PMs presented at the AC meeting, two did not receive any votes, including
  - Number of system airports with airport included in local comp/land use plan (zoning)
  - Airports with a spill prevention control and countermeasures (SPCC) program
- TDOT Aeronautics Division decided to keep both as PMs
- The AC considered changing the SI to a PM: Non-Primary Entitlement (NPE) utilization
  - Based on initial discussions with the TDOT Aeronautics Division, the project team decided to keep this item as an SI
  - Based on follow-up discussions, TDOT Aeronautics Division ultimately replaced the language to read: Percentage of federal funds allocated through sub-awards and made it a PM
- The AC proposed an SI: Amount of sales tax being generated on airports, but based on follow-up discussions, TDOT Aeronautics Division ultimately chose not to adopt.

The final PMs and SIs associated with TASP Goal #4 are shown in ***Table 8***.

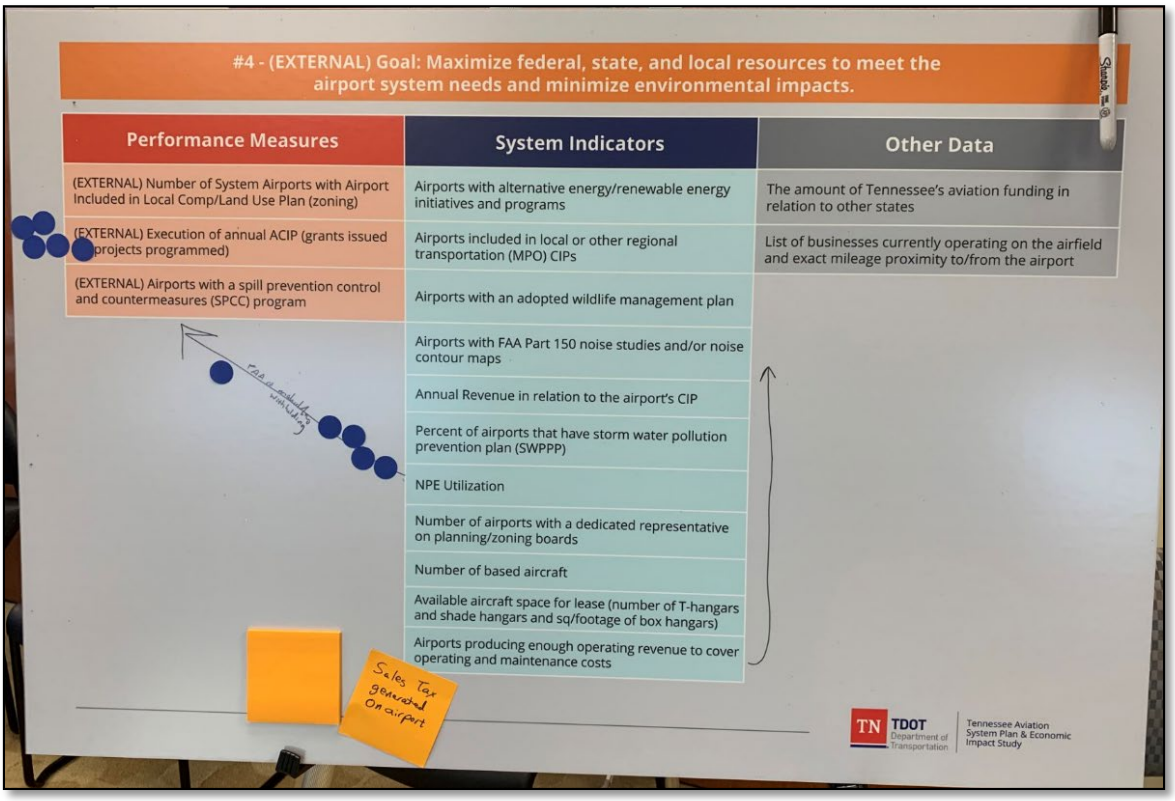

Figure 7: Results from the Goal #4 Exercise

Table 8: Goal #4 Performance Measures, System Indicators, and Other Data

#4 - (EXTERNAL) Goal: Maximize federal, state, and local resources to meet the airport system needs and minimize environmental impacts.

Performance Measures	System Indicators	Other Data
(EXTERNAL) Number of System Airports with Airport Included in Local Comp/Land Use Plan (zoning)	Airports with alternative energy/renewable energy initiatives and programs	The amount of Tennessee's aviation funding in relation to other states
(EXTERNAL) Execution of annual ACIP (grants issued vs. projects programmed)	Airports included in local or other regional transportation (MPO) CIPs	List of businesses currently operating on the airfield and exact mileage proximity to/from the airport
(EXTERNAL) Airports with a spill prevention control and countermeasures (SPCC) program	Airports with an adopted wildlife management plan	
(EXTERNAL) Percentage of Federal funds allocated through sub-awards	Airports with FAA Part 150 noise studies and/or noise contour maps	
	Annual Revenue in relation to the airport's CIP	
	Percent of airports that have storm water pollution prevention plan (SWPPP)	
	NPE Utilization	
	Number of airports with a dedicated representative on planning/zoning boards	
	Number of based aircraft	
	Available aircraft space for lease (number of T-hangars and shade hangars and sq/footage of box hangars)	
	Airports producing enough operating revenue to cover operating and maintenance costs	

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GOAL #5: INVEST IN THE AIRPORT SYSTEM AND THE AVIATION WORKFORCE TO SUPPORT ECONOMIC GROWTH AND COMPETITIVENESS.

The purpose of Goal #5 is to enable Tennessee airports to advance economic growth by investing available funds in projects that support sustainable, long-term growth.

The AC's discussion for Goal #5's PMs and SIs, as shown in ***Figure 8***, resulted in the following changes.

- The AC considered changing the SI to a PM: Number of airports that have based flight training programs and schools
  - Based on discussions with the TDOT Aeronautics Division, the project team decided to keep this item as an SI

The final PMs and SIs associated with TASP Goal #5 are shown in ***Table 9***.

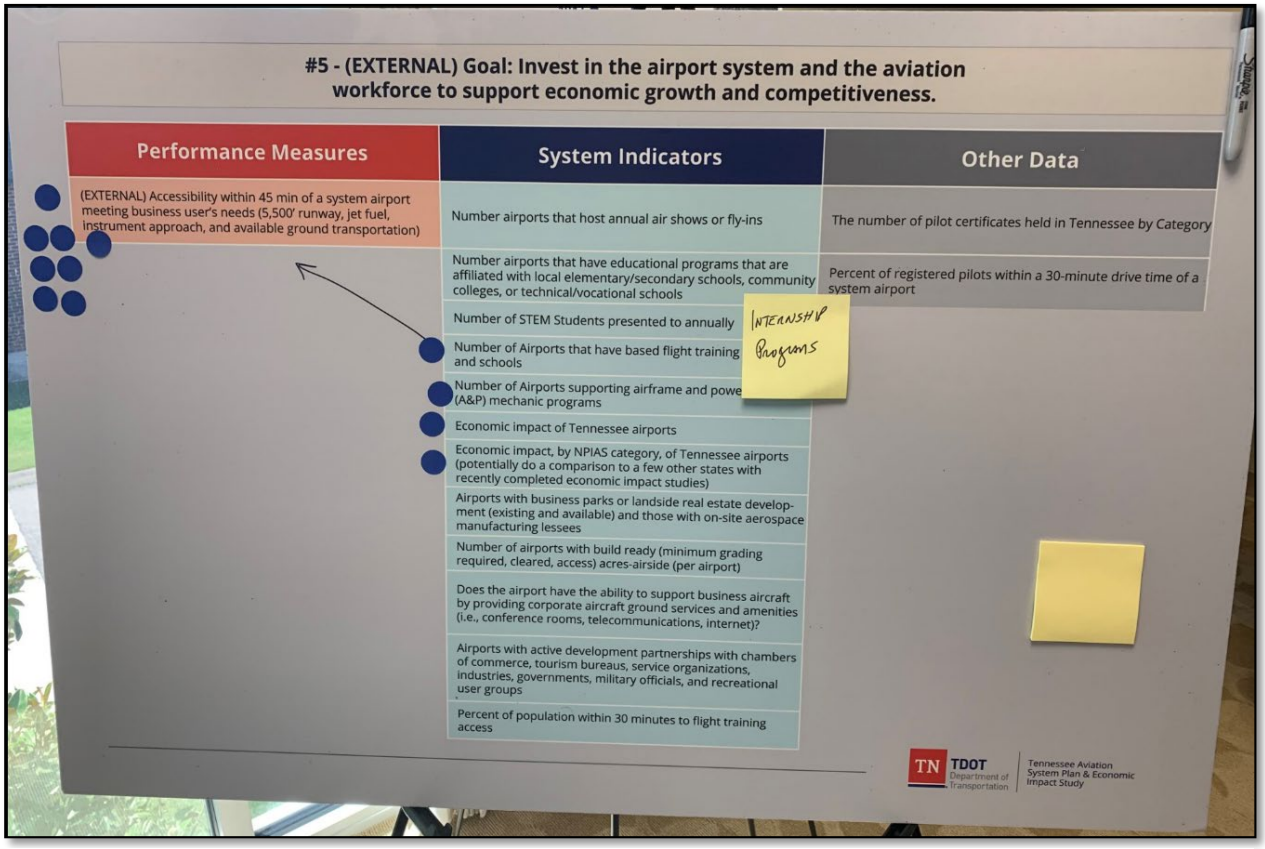

Figure 8: Results from the Goal #5 Exercise

Table 9: Goal #5 Performance Measures, System Indicators, and Other Data

#5 - (EXTERNAL) Goal: Invest in the airport system and the aviation workforce to support economic growth and competitiveness.

Performance Measures	System Indicators	Other Data
(EXTERNAL) Accessibility within 45 min of a system airport meeting business user's needs (5,500' runway, jet fuel, instrument approach, and available ground transportation)	Number of Airports that have based flight training programs and schools	The number of pilot certificates held in Tennessee by Category
	Number of airports that host annual air shows or fly-ins	Percent of registered pilots within a 30-minute drive time of a system airport
	Number of airports that have educational programs that are affiliated with local elementary/secondary schools, community colleges, or technical/vocational schools	
	Number of STEM Students presented to annually	
	Number of Airports supporting airframe and powerplant (A&P) mechanic programs	
	Economic impact of Tennessee airports	
	Economic impact, by NPIAS category, of Tennessee airports	
	Airports with business parks or landside real estate development (existing and available) and those with on-site aerospace manufacturing lessees	
	Number of airports with build ready (minimum grading required, cleared, access) acres-airside (per airport)	
	Does the airport have the ability to support business aircraft by providing corporate aircraft ground services and amenities (i.e., conference rooms, telecommunications, internet)?	
	Airports with active development partnerships with chambers of commerce, tourism bureaus, service organizations, industries, governments, military officials, and recreational user groups	
	Percent of population within 30 minutes to flight training access	

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Conclusion

The Goals, PMs, and SIs established in this chapter provide the framework for the inventory, system analysis, and recommendations of the TASP. Through an interactive exercise with an AC chosen from among a diverse range of Tennessee's aviation stakeholders, a representative list of Goals, PMs, and SIs were chosen. Furthermore, the Goals, PMs, SIs, and Other Data determined by TDOT Aeronautics Division and the AC informed the development of the TASP surveys, which were sent to all system airports. These surveys represent one of the main data collection efforts of the TASP, and in turn will inform subsequent steps of the study.