Draft Executive Summary Summer 2015

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What is the history of the Kent State University Airport and the University's Aviation Program?

Like the state of Ohio, the Kent State University Airport is rich in aviation history. The airport, also known as Andrew Paton Field, goes back to World War I, when it was used as an en route landing field for pilots delivering Curtiss JN-4 "Jennies" produced in Canada to locations in the United States. Three years later, the airport opened for public use as Stow Aviation Field. During the 1930s, under the direction of the Robbins Flying Service, the airfield was used by several notable pilots, including Charles Lindbergh, Floyd Bennett, and Eddie Rickenbacker. In 1942, Kent State purchased the airport and renamed it Kent State University Airport. In 1947, Andrew Paton taught the university's first aerospace course. The Federal Aviation Administration (FAA) has supported the development of the airport through land acquisition and airfield improvement grants since 1964.

Today, the airport is a public use airport that is the home to the university's accredited and honored aviation program. It is classified as a "general aviation" airport, which means that it serves the general public, but does not offer scheduled commercial service.

How does the Kent State University Airport benefit the community?

The airport is a valuable asset that brings numerous social and economic benefits to the community. It serves as a gateway to Kent, Stow, and surrounding areas, providing a base for private pilots, local businesses, agriculture, and vital medical services.

The airport is classified as one of 29 general service airports in the 2006 Ohio State Aviation System Plan. This classification of airports serves light, twin-engine and single-engine aircraft flying for business, pleasure, and training.

Financial—According to a 2014 economic impact study conducted by the Ohio Department of Transportation (ODOT) Office of Aviation, the airport has a positive financial impact on the community. Using an FAA-approved methodology, the study quantified the total economic impact of the Kent State University Airport at $4.7 million, of which $1.8 million is associated with direct, on-airport impacts.

Environmental—Of the airport's 300 acres, approximately 20 acres are covered with impervious surfaces or buildings. The remaining open or wooded areas provide for water infiltration and support stormwater management in the area. Approximately a third of the airport property is not used for aircraft movement and is suitable habitat for local wildlife.

Social—The airport and Aeronautics Program sponsor and support community events and activities:

- Support the Aviation Careers Academy, in partnership with the Six District Educational Compact (Cuyahoga Falls, Hudson, Kent, Stow-Monroe Falls, Tallmadge, and Woodridge school districts).
- Host the Nikki Kukwa Memorial Aviation Camp (the sixth camp was held in 2014), an academic outreach and residential program that introduces 20 young women to the career opportunities available in aviation and space.
- Host, along with the Stow-Munroe Falls Kiwanis Club, an Aviation Heritage Fair (the 18th event was held in 2014) at the airport. The goals of the fair are to share aviation with the local community and to raise scholarship funds.

What makes the Kent State University Airport and its aviation programs important and unique?

The Kent State Aeronautics Program is one of the largest flight training schools in Ohio, and the only collegiate aviation program in the state to be accredited by the Aviation Accreditation Board International (AABI). Kent State has accreditation in five programs—only two other institutions in the world have as many accredited programs. Currently, the university has more than 500 students enrolled in bachelor's degree programs in the following concentrations:

- Aviation Management
- Aeronautical Systems Engineering Technology
- Aeronautical Studies
- Flight Technology
- Air Traffic Control

Kent State is one of very few universities in the U.S. and the world with its own airport. While the facility is available for public use, the majority of activity is associated with the university.

There is a continued demand for professional pilots and aviation professionals worldwide, and Kent State's programs are helping to train a new generation of aviation professionals. The Aeronautics Program is recognized by major airlines and the U.S. military

as one of the top flight schools in the country. Kent State was awarded the Loening Trophy in 2010, an award presented annually to the outstanding all around collegiate aviation program in the nation. In 2012, Kent State was named as a member of a team of universities to lead a new FAA Center of Excellence Partnership to Enhance General Aviation Safety (PEGASUS).

What will an airport master plan do for the Kent State University Airport?

The main objective of this master plan is to outline the vision for the Airport and document the extent, type and schedule of development needed to accommodate existing needs and future aviation demand.

The recommended development program will satisfy aviation demand and be compatible with the environment, community development, and other transportation modes. Above all else, the plan will be technically sound, practical and economically feasible. The following objectives have served as a guide in the preparation of this study.

The master plan objectives:

- Focus on the Academic Mission (accommodate growth in Flight Training)
- Remain a public use airport (comply with FAA grant assurances)
- Increase airport revenue (move toward financial independence)

The following considerations were integral to the master plan development:

- The effect of recent national and local aviation trends on the 2006 airport master plan.
- The existing capacity of airport infrastructure and whether there is a need to maintain or improve facilities.
- The issues, opportunities, and constraints of the airport.
- Applicability of federal, state, and local regulations.

Kent State University Airport Master Plan Milestones

Why does the airport need another master plan?

The last master plan for the Airport was completed in 1974. The last FAA approval of an Airport Layout Plan (ALP) was in 1984. While a master plan was prepared in 2004 and updated in 2006, the FAA did not accept the preferred alternative, and in 2008 only provided a conditional approval of an ALP that does not depict any development or improvement.

An airport master plan is needed for the following reasons:

1. **Kent State wishes to reconsider the previous decision to decommission the airport.** In the 2004 master plan (and its 2006 update), Kent State recommended closing the airport and transferring operations to a nearby airport. The university is reconsidering this recommendation, both because it envisions a strong future for the airport and because the Federal Aviation Administration (FAA) did not accept the alternative of closure.
2. **An FAA-approved airport layout plan (ALP), a product of the master plan, is required in order to receive federal funding to improve and maintain airport facilities.** The FAA provided conditional approval of an ALP in 2008 that does not depict any development or improvement of the Airport. The last substantial investment at the airport was more than 10 years ago, and many of the facilities are 30 to 70 years old or were intended as temporary structures.
3. **The FAA has issued new airport design standards affecting the development of airport master plans.** In 2015, an update was made to the FAA's Master Plan Advisory Circular. A new advisory circular was released in 2012 and updated in 2014 that provides guidance on the geometric layout and engineering design requirements for runways, taxiways, aprons, and other airport facilities. In 2013, the FAA issued standard operating procedures that guide the development of airport layout plan drawings.

How were stakeholders and the public involved?

Through a thorough process of engaging airport users and community stakeholders, the Plan was developed to reflect the master plan objectives and opportunities to become more sustainable. Several parallel outreach efforts have taken place:

Steering Team

The Steering Team met four times during the planning process to provide project direction and review key deliverables. The Steering Team included representatives from:

- Kent State University
  - Finance and Administration
    - Business and Administration Services
    - Compliance and Risk Management
    - Facilities Planning and Operations
  - Governmental Affairs and General Counsel
  - University Relations (Advisory Member)
  - Office of the Provost
  - Aeronautics Program
  - Airport
- Agency/Municipal Representatives:
  - Ohio Department of Transportation Aviation Administrator
  - FAA Detroit Airports District Office
  - Mayor of Stow
  - Stow-Munroe Falls Chamber of Commerce
  - City of Kent Economic Development
  - Portage County Development Board
  - Summit County Dept of Community & Economic Development
  - Summit County State Representative

Community Liaison Group

The CLG met three times during the planning process. As representative of key stakeholders and general public, CLG members served as a conduit for communication with community and the meetings provided additional opportunities for constituent and public involvement. The CLG included representatives from:

- Kent State University
- Airport tenant
- Flight Training student/flight instructor
- City of Stow residents
- City of Stow Planning Commission
- Munroe Falls City Council

Public Outreach

A project website (ksuairportplan.com) informed the public of meetings, provided access to documents for review and comments, and enabled submission of comments and strategies for incorporation in the planning effort. The website received more than 13,200 views over the course of the project.

Over a dozen news articles and media interviews generated traffic to the project website and encouraged attendance at the two public meetings. The first public meeting was held at 6:00 pm on Monday, March 4, 2013, in the Council Chambers at Stow City Hall. The purpose of the meeting was to introduce the project and consultant team to the community and collect information on concerns they have, review the Airport Master Plan process, discuss key issues at the Airport, and the next steps moving for-

ward. There were 81 attendees at the meeting. Forty percent of the attendees were affiliated with the University or were users of the airport. Just under half of attendees were residents or municipal/agency representatives.

The second public meeting was held at 6:00 pm on Thursday, November 20, 2014, at Stow-Munroe Falls High School. The purpose of the meeting was to provide attendees with an opportunity to review and provide comments on the alternatives development and evaluation. Fact sheets and informational displays were provided and project staff were available to answer questions. Attendees were encouraged to share comments directly with staff members or submit them in writing at the meeting, by mail or e-mail, or through the project website. Written comments were accepted through November 30, 2014. There were 80 attendees at the meeting. More than half of the attendees were affiliated with the University or were users of the airport. Thirty percent of attendees were residents or municipal/agency representatives.

What are the features of the existing Airport?

The Airport has one active runway, Runway 1-19, which is 4,000 feet long and 60 feet wide. There is a full parallel taxiway and three connecting taxiway segments, as well as several taxilanes providing access to existing and potential T-hangars. There are about 19,000 square yards of apron pavement—nearly 80 percent is available for aircraft storage (with 39 existing tie-downs), and 20 percent is used for maintenance, fueling, and temporary parking. The runway, taxiways, and apron are in fair condition while the taxilanes are in poor condition. Most of the airfield has poor drainage. Aircraft operations are supported by airfield lighting, signage, markings, and navigational aids that help pilots navigate to and from the Airport.

The airport also has a number of landside facilities, the majority of which are in poor condition:

- 6,200-square-foot joint hangar/terminal.

- 24,300-square-foot community hangar.
- 14-bay T-hangar with two storage garages.
- Five trailer facilities—four owned by Kent State, and one owned by Commercial Aviation Corporation.
- Two below-ground, 10,000-gallon storage tanks (providing aviation gasoline [AvGas] and Jet-A fuel), and a 250-gallon above-ground diesel tank.
- 56-space auto parking lot and Kent campus bus stop.

What is the current activity at the Airport?

The FAA requires airports to base their design standards on the aircraft that is both the most demanding to serve and that has at least 500 annual operations (an operation is either a takeoff or landing). The Kent State Aeronautics Program accounts for 88 percent of airport operations and, as a result, its dominant training aircraft, the Cessna 172, is the critical aircraft for this Airport. Airport features, such as runway length and width, are dictated by the needs of the Cessna 172.

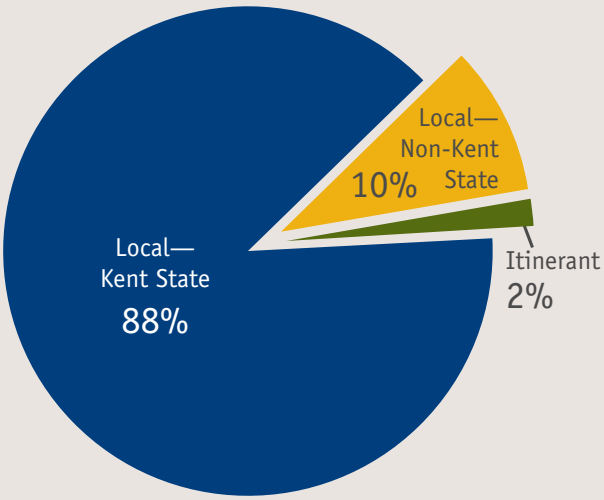
With a renewed focus on its academic mission, Kent State University student activity is expected to remain as the primary driver for the aviation forecast. Aeronautics Program enrollment is projected to double by 2018 based on the University's understanding of the nation's continued and increasing need for pilots.

Within the Aeronautics Program, the number of flying students is expected to grow from 90 to 250 per semester within 10 years. This growth is based on the student growth rate, changes to the flight schedules that will enable more efficient training, and modernization of the aircraft fleet to meet training needs.

The non-Kent State operations forecast was formulated using FAA guidance for GA airports, examining existing levels, and applying the projected population trends for Summit and Portage counties. Total annual operations, including both student and non-Kent State activity, are anticipated to grow from 40,580 in 2012 to 108,860 in 2022.

What improvements are necessary to accommodate current and future demand?

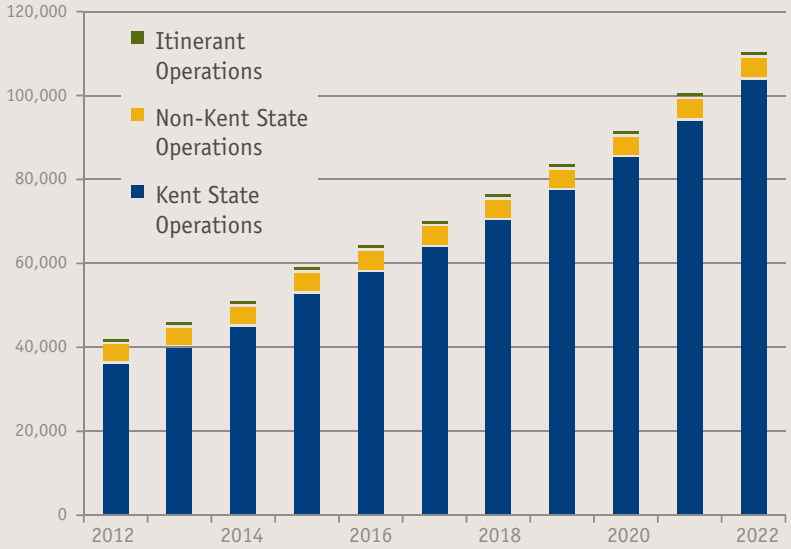
Existing aviation activity



Local operations stay within the local traffic pattern or within sight of the Airport; Itinerant operations extend beyond the local traffic pattern.

Source: Kent State University

Annual operations forecast



Source: Kent State University, Jacobsen Daniels Assoc., and C&S Companies

The Cessna 172 is the critical aircraft for the Airport and has a 36-foot wingspan and a tail height of 8 feet, 11 inches.

Based on existing and projected demand, the condition of the existing facilities, and FAA design standards, the Airport needs a number of improvements/upgrades. Several projects were identified that would enhance operational efficiency, but are not required.

Airside

- Address items that do not meet FAA standards
- Rehabilitate airfield pavement (runways, taxiways and aprons)
- Remove or light obstructions
- Repair/replace airfield lighting, including runway end identifier lights
- Upgrade electrical system; add an emergency generator
- Install automated weather observing station
- Maintain compass calibration pad
- Replace fuel tanks
- Install perimeter fencing
- Identify/implement security measures
- Acquire (or gain control via easement) the land that is currently outside of the airport boundary but within the Runway 1 runway protection zone.

Landside

- Rehabilitate existing hangars
- Provide additional hangars for aircraft storage
- Replace/expand terminal building
- Replace/expand classroom space
- Rehabilitate/expand auto parking and access road
- Construct snow removal equipment (SRE) building to house equipment

How was sustainability incorporated?

Kent State has proven its commitment to sustainability through involvement in and creation of sustainability organizations, efforts to reduce resource consumption, and numerous energy conservation

A waste audit helped identify how recycling programs could be improved.

projects. Kent State pursued additional federal funding to integrate sustainability into the master planning process. Kent State University Airport was one of 20 airports nationwide selected by the FAA for the most recent round of funding for sustainability planning projects.

Airport sustainability is defined by the Airports Council International–North America as ensuring economic viability, operational efficiency, natural resource conservation and social responsibility (EONS). A sustainability baseline assessment documented existing sustainability initiatives and opportunities and established goals for integrating sustainability into the Airport's management and operation. The sustainability component of the master plan focused on six specific subject areas that are most related to the needs of the Airport—air quality and greenhouse gases, energy, sustainable materials management, land use compatibility, community outreach, and airport business model/ operations analysis. Specific sustainability initiatives were included in the alternatives development and EONS criteria were used to evaluate all development alternatives.

What alternatives were considered?

The following four scenarios or themes were developed, each of which included one or more alternatives. Each scenario and their associated alternative(s) are described below.

Scenario 1: No Build

Alternative 1—A no-action scenario is used as a baseline to evaluate the advantages and disadvantages of various development alternatives. There would be no expansion or improvements to existing facilities, though ongoing maintenance would be continued and safety measures would be implemented.

Scenario 2: Town Gown

This scenario focuses on enhancing the town-gown relationship between the Airport and surrounding communities—by balancing the academic mission with community programs and benefits. The Airport would remain open for public use but the focus would be on Flight Training and it would not be actively marketed to attract corporate aviation activity. The scenario minimizes off-airport impacts and maximizes opportunities for community benefits on airport property. Alternatives include:

- **Alternative 2-A:** Improve facilities to meet FAA design standards for an Airport Reference Code (ARC) of A-I—Obstruction identification and proposed mitigation is based on surfaces for a non-utility runway (serving aircraft with a maximum takeoff weight [MTOW] more than 12,500 pounds) to reflect larger aircraft unrelated to Flight Training. This alternative includes construction of a new terminal/academic building.
- **Alternative 2-B**—Similar to Alternative 2-A, but proposes that development and improvements be based on the small aircraft standards (serving aircraft with a MTOW less than 12,500 pounds). This acknowledges that 90% of the operations at the Airport are by small single-engine aircraft, with the most frequently operated aircraft being the Cessna 172 used by Flight Training. The utility (small aircraft) designation minimizes off-airport impacts associated with obstruction removal and land acquisition/avigation easements.

Scenario 3: Balance Beam

This scenario balances the academic mission with the need to generate additional revenue to help offset the cost of airport operations and maintenance. This is accomplished through marketing the Airport to attract additional aircraft, particularly corporate aviation. The ARC would be increased to B-I to accommodate small business jets. To represent this family of aircraft, the Swearingen Merlin III, a twin-engine turboprop, was selected as the critical aircraft. The critical aircraft would require additional runway length (approximately 4,380 feet). However, given the property constraints, including adjacent roadways, the alternatives depict a runway extension for a total length of 4,219 feet. Given the reduced length, some small business aircraft may need to operate with limitations on take-off weight or divert operations during poor weather conditions.

While this scenario minimizes off-airport impacts and maximizes opportunities to provide community benefits, the attraction of corporate aviation and the anticipated increase in operations, particularly by small business aircraft, may be perceived as a potential community impact. Two alternatives were identified:

Alternative 3-A—Involves a number of necessary facility improvements, including construction of a new terminal/academic building.

Alternative 3-B—In addition to the facility improvements, this alternative separates Flight Training from other general aviation activity. The latter would be relocated to the southwest side of the Airport with access provided via North River Road. Be-

Scenario 3: Balance Beam critical aircraft—Swearingen Merlin III.
Source: phlairline.com

sides ensuring segregation from student activities, this could provide access to land to the west for a potential research facility or aviation-oriented businesses that would not require frontage.

Alternative 4: Soar critcal aircraft—the Cessna Citation II. Source: Cessna.com

Scenario 4: Soar

Under this scenario Flight Training would be relocated to a nearby airport while the existing Kent State University Airport would remain open for public use. Since Kent State would be reallocating its personnel resources and financial support to another nearby airport, they would look to transfer sponsorship to a public operator or hire a management firm to maintain and operate the Airport. In order to make the Airport marketable and offset the loss of Flight Training, the existing airfield would need to be upgraded. Due to the anticipated increases in the national and state jet aircraft fleet, the Cessna Citation II was selected as the critical aircraft, which represents an ARC of B-II.

Under this scenario, the projected 20,000 non-Kent State operations would remain at the Airport. Ideally, the facility improvements, presence of a Fixed Base Operator (FBO), and implementation of a strong marketing strategy would continue to grow general aviation.

Alternative 4-A—FAA guidelines for determining runway length indicate the critical aircraft would require approximately 4,980 feet for dry-pavement conditions. However, based on feedback from the Steering Team it was decided that the relocation of Flight Training should be evaluated without a significant runway extension that would have major impacts on the surrounding community. Therefore, Alternative 4-A shows the maximum extension possible given the property constraints at the Airport (4,219 feet). This runway length would not accommodate the family of aircraft (B-I or B-II) without some limitations on operations.

Alternative 4-B—This alternative involves an extension of the runway to 5,000 feet to accommodate the scenario's critical aircraft, requiring over 11 acres of land acquisition and 31 acres of easements. This would also improve the Airport's role in the aviation system and meet most insurance requirements for corporate aircraft. The extension would require land acquisition and the relocation or tunneling of North River Road. Landside improvements would include the replacement of the existing aging hangars and terminal facility.

What criteria and process were used to evaluate alternatives?

Alternatives were evaluated based on the ability to meet the purpose and need of the particular scenario and sustainability criteria—Economic viability, Operational efficiency, Natural resource conservation and Social responsibility (EONS).

Based on a qualitative and quantitative assessment of the alternatives, each evaluation criterion was assigned a comparative rating. Similar to the *Consumer Reports*' system, the rating system uses a modified circle to visually communicate the qualita-

tive assessment. The ratings correlate to a simplified non-weighted score as shown on the Alternatives Matrix at the end of this document. Alternatives with a higher summary score have an overall positive impact. A summary of the rankings is provided in the Alternatives Ranking table.

Alternatives Ranking

Ranking	Alternative	Summary Score
1	2-B: Town Gown ARC A-I Utility	30
2	2-A: Town Gown ARC A-I	25
3	3-A: Balance Beam	21
4	3-B: Balance Beam	18
5	1: No Build	12
6	4-B: Soar	6
7	4-A: Soar	5

Source: C&S Companies

The alternatives development and evaluation was presented to the Steering Team, Community Liaison Group (CLG) and the public in a series of meetings. Public comments were received through November 30, 2014. Fifty-six comments were received:

- Approximately 65% of comments were in support of the airport in its existing location.
- 25% of comments were in opposition to the airport activity and supported relocation of flight training.
- The remaining 10% were about specific features of the airport or alternatives.

In general, Alternative 2-A: Town Gown and Alternative 3-B: Balance Beam received the most positive feedback. The majority of the comments focused on:

- The location of the automated weather observing station and the need to preserve an area for future GA development.
- The location of the terminal/academic building and its relationship to both Kent Road and the runway run-up area.
- The flight pattern and its effect on residential areas.

What is the preferred alternative?

After consideration of the alternatives evaluation and community input, the Steering Team identified Alternative 2-A: Town Gown Improve to FAA design standards for an Airport Reference Code (ARC) of A-I as the preferred alternative. The primary reasons for selection of Alternative 2-A over other alternatives include its ability to:

- Maximize community benefits.
- Minimize residential impacts by maintaining the existing runway length.
- Minimize the addition of non-pervious surfaces and associated water runoff issues.
- Maintain and improve current infrastructure rather than expand.

- Maintain co-location of GA and University Flight Training activities, reducing operation/management issues.

The preferred alternative was modified to reflect input from the community, tenants, and users:

- Shifted the potential location of the AWOS to allow for future aviation-related development (final location to be determined during design).
- Added a snow removal equipment building to accommodate a recent (2014) purchase of a TV6070 tractor with loader, snow blower, runway broom, and blade.
- Identified areas for future aviation-related development and terminal/landside development with building needs identified for general planning purposes. The final building size, location, and orientation will be determined during design using sustainable principles, including:
  - Orientation to take advantage of daylight, prevailing winds, and solar potential and consideration of adjacent aviation activity.
  - Site design to reduce, control, and/or treat stormwater runoff.
  - Building design to optimize building space, material use, energy use, water conservation, and operational and maintenance practices.

The attached airport layout plan, depicts the preferred alternative.

The Project Phasing Plan presents a recommended phasing schedule for implementing the proposed project program for the 20-year planning period (2015-2035) as follows:

- Phase 1 (2015 to 2019)—short-range airport growth and immediate needs.
- Phase 2 (2020 to 2024)—mid-range airport growth.
- Phase 3 (2025 to 2035)—long-range airport growth and future rehabilitation.

The phasing plan, presented on the ALP, may change if federal, state, or local funding is not available or if the forecasted demand varies. If aviation demand is less than forecasted, demand-based projects will be deferred. If demand increases, projects may be moved to an earlier date. Where applicable, relevant sustainability initiatives have been included.

A financial plan, provided in the master plan report, was prepared to support investment decisions and to serve as a guide for orderly development at the Airport. It identifies projects (capital improvements, plans, and programs), their sequencing, and the possible financial obligations to be assumed by the federal government and the airport sponsor (Kent State University). The objective of this financial analysis is to identify the potential funding mechanisms and costs for implementing the program through the year 2035, with an emphasis on the projects in the first five years. The overall development plan consists of approximately $40 million in capital improvements and $1 million to $2 million in plans and programs. Of this total, approximately $16 million to $17 million would be eligible for FAA Airport Improvement Program (AIP) funds, with the remaining funds coming from local and other non-AIP sources. The plan identifies a range of potential non-AIP funding opportunities, including the State of Ohio grant program, local (increased Airport revenue and in-kind services), private investment, research and sustainability funding.

Alternatives Matrix

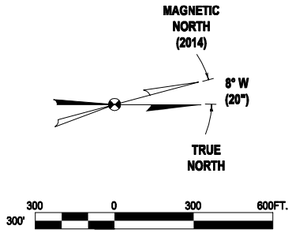
2—Positive
1—Neutral
0—Negative

EONS—Evaluation Criteria	Alternative Strategy	1: No Build	2-A: Town Gown Airport Reference Code A-I	2-B: Town Gown Airport Reference Code A-I Utility	3-A: Balance Beam	3-B: Balance Beam	4-A: Soar	4-B: Soar
		Continue on-going maintenance and implementation of safety measures. Does not provide for expansion or improvement to facilities and services.	Focus on academic mission and maximizing community benefits. Meet design standards for Airport Reference Code A-I.	Focus on academic mission and maximizing community benefits. Meet design standards for Airport Reference Code A-I Utility (small aircraft only) to minimize off-airport impacts.	Attract non-University airport users. The increase in revenue will offset the cost of airport operations and maintenance.	Attract non-University airport users and separate GA activities from Flight Training. The increase in revenue will offset the cost of airport operations and maintenance.	Relocate the Flight Training. Improve airport to attract sufficient non-University activity to cover the cost of airport operations and maintenance. Extend runway to 4,219 feet.	Relocate the Flight Training. Improve airport to attract sufficient non-University activity to cover the cost of airport operations and maintenance. Extend runway to 5,000 feet.
Purpose And Need								
Ability to Meet Purpose and Need	Depicted development meets the purpose and need of the scenario.	●	●	●	●	●	○	●
Economic Vitality								
Economic Impact to Community	Considers economic development impact associated with drawing students to the area for Flight Training and employees, faculty and staff at the Airport and in the Flight Training program.	◐	●	◐	●	●	○	○
Development Cost	Considers order-of-magnitude and life cycle costs, potential to leverage other resources, consideration of immediacy of benefit.	●	◐	●	◐	◐	◐	○
Operation and Maintenance Cost	Annual cost to operate and maintain the airport. Also considers the additional costs to operate Flight Training at a new facility.	○	◐	●	◐	○	○	○
Revenue Generation	Considers the potential revenue generation from an increase in airport users (Flight Training and non-University).	○	●	◐	●	●	◐	◐
Operational Efficiency								
Airport Design Standards	Ability to meet FAA design standards—emphasizes the importance of improving safety.	○	◐	●	◐	◐	○*	○
Constructability	Considers timeframe, availability of technology, support/partners for implementation.	◐	●	●	○	○	○**	○
Ownership/Management	Considers the impact on operations of having the Airport operated by or its sponsorship transferred to another entity. Also considers the operational efficiency of any configuration changes.	◐	●	●	●	◐	○	○
Impact on Flight Training	Considers the operational impacts on Flight Training associated with the alternatives including its relocation to a non-Kent State-owned facility.	○	●	●	●	●	○	○
Natural Resource Conservation								
Air Quality and GHG Emissions	Change in GHG emissions associated with airport activity.	○	●	●	◐	◐	○	○
Energy	Change in energy consumption or generation.	○	●	●	●	●	●	●
Sustainable Materials Management	Considers the change in materials management at the Airport.	◐	●	●	●	●	◐	◐
Fish, Wildlife, and Plants	Considers the project alternative's potential effect on fish, wildlife and plants, particularly changes to habitat.	◐	○	◐	◐	○	○	○
Water Quality/Management	Change in the impervious surface area for both Kent State University Airport and the facility if Flight Training were to be relocated.	○	○	◐	○	○	○	○
Social Responsibility								
Operations/Noise	Change in operations and associated change in aircraft noise.	◐	◐	●	○	○	○	○
Land Use Compatibility	Considers the project alternatives potential effect on land use compatibility (safety and noise) for both Kent State University Airport and the facility if Flight Training were to be relocated.	◐	◐	●	○	○	○	○
Community Benefits/Amenities	Considers the project alternatives potential effect on current and future community benefits/amenities.	◐	●	●	●	●	○	○
Summary Score		12	25	30	21	18	5	6
Ranking		5	2	1	3	4	7	6

*Soar would require significant costs to meet design standards.

**Balance Beam and Soar 4-A would require retaining wall. Soar would require significant investment and coordination with surrounding community including relocations of homes.

Airport Layout Plan



LEGEND

SYMBOL	DESCRIPTION
	Runway Centerline
RSA	Runway Safety Area (RSA)
ROFA	Runway Object Free Area (ROFA)
OFZ	Obstacle Free Zone (OFZ)
RPZ	Runway Protection Zone (RPZ)
	Approach Surface
TOFA	Taxiway Object Free Area (TOFA)
TSA	Taxiway Safety Area (TSA)
BRL	Building Restriction Line (BRL)
	NAVAID Critical Area
	Pavement
ARP	Airport Reference Point
	Airport Buildings
	Other Buildings
APL	Airport Property Line
	Other Property Lines
	Railroad
	Fence
	Tree line
	Wetlands
	Ground Elevation Contours

NOTES:
1. ALL LATITUDE/LONGITUDE COORDINATES ARE IN NORTH AMERICAN DATUM OF 1983 (NAD 83)
2. ALL ELEVATIONS ARE IN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

FACILITIES TABLE

EXISTING/PROPOSED

#	Facility Description	Top Elevation
E1	~~T-hangar (14-bay)~~	~~1,170'~~
E2	Main Community Hangar	1,210'
E3	~~Terminal & Aircraft Maintenance Hangar~~	~~1,175'~~
E4	~~Trailer (Private)~~	~~1,170'~~
E5	~~Trailer (Ground School)~~	~~1,169'~~
E6	~~Trailer (Simulator/Office)~~	~~1,167'~~
E7	~~Trailer (FAA)~~	~~1,165'~~
E8	~~Trailer~~	~~1,163'~~
P1	Proposed Maintenance Hangar	N/A
P2	Proposed T-Hangar	N/A
P3	Proposed Terminal/Academic Building	N/A
P4	Proposed Snow Removal Equipment Bldg.	N/A

KEY:
- E# Existing Building
- ~~E#~~ Building to be Removed
- P# Proposed Building
- Indicates Building to be Removed

AIRPORT CAPITAL IMPROVEMENT PROGRAM

Phase 1 (2015 - 2019)	
1-A	Design and Construct: Pavement Maintenance (2015)
1-A-8	Install: Automated Weather Observation Station (AWOS)
1-A-3	Design and Construct: Obstruction Mitigation
1-G-1a	Study/Plan: Storm Water Management
1-A-1&2	Design and Construct: Runway Rehabilitation/Safety Area
1-A-4	Design and Construct: Taxiway A/Safety Area
1-A-7	Design and Construct: Runway and Taxiway Lighting/Upgrade Electrical
1-E-1	Environmental Assessment: 5 year ACIP Landside Development

Phase 2 (2020 - 2024)	
2-L-1	Design and Construct: New Terminal/Academic Building
2-L-2	Design and Construct: New Access Road and Parking
2-L-6	Design and Construct: Snow Removal Equipment Building
2-A-6	Design and Construct: Rehabilitate Apron/Install Fuel Tanks
2-P-2	Acquire: RPZ Avigation Easement

Phase 3 (2025 - 2035)	
3-A-9	Design and Construct: Rehabilitate Compass Calibration Pad
3-A-10&11	Design and Construct: Install Perimeter Fencing/Implement Security Measures
3-A-12	Design and Construct: Repair/Re-commission or Install New REILs
3-L-5	Design and Construct: New Maintenance Hangar
3-A-5	Design and Construct: Remove Taxilanes/Tie-down Areas
3-L-4	Design and Construct: Rehabilitate Community Hangar
3-L-3	Design and Construct: New T-Hangars

AIRPORT PLANS AND PROGRAMS

Phase 1 (2015-2019)	
1-A-13	Plan/Program: Conduct Wildlife Hazard Assessment Site Visit (2015)
1-S-9	Plan/Program: Community Outreach Program
1-S-16	Plan/Program: Sustainability Education and Promotion Program
1-S-8,12&13	Plan/Program: Key Management Documents/ Track Performance Metrics
Phase 2 (2020-2024)	
2-S-4	Study/Plan: Conduct an Energy - Air Quality Cost Benefit Study
2-S-3	Plan/Program: Transportation Demand Management (TDM) Program
2-S-6	Program: Implement Measures to Minimize Noise Impacts
2-S-5	Plan/Program: Enhanced Materials Management Program
2-S-7	Program: Enhance safety through land use compatibility
Phase 3 (2025-2035)	
3-P-3	Plan/Program: Pursue land lease(s)
3-S-10	Plan/Program: Increase Community Amenities

FAA APPROVAL STAMP