



Memo

To: Randy Smith, Vice Provost for Academic Programs, Office of Academic Affairs
From: Cory Matyas, Assistant Dean for Curriculum and Assessment
Date: November 18, 2025
Re: Proposal to Re-Establish Department of Aviation

Please find enclosed the proposal to re-establish the Department of Aviation within the College of Engineering. This initiative reflects our commitment to advancing Ohio State's leadership in aviation education and research, while meeting the growing demand for expertise in this critical field.

The Engineering College Committee on Academic Affairs reviewed the proposal on October 6, 2025, and unanimously endorsed it. Following this, the proposal was presented for a full faculty vote within the College of Engineering, where it received overwhelming approval.

We believe reinstating the Department of Aviation will strengthen interdisciplinary collaboration, enhance student opportunities, and position Ohio State as a national leader in aviation innovation.

Thank you for your consideration.



November 18, 2025

Office of Academic Affairs
University Square South
15 E. 15th Ave.
Columbus, OH 43201

Re: College of Engineering Eligible Faculty Vote for transitioning the Center of Aviation to Department of Aviation.

Dear Committee Members,

This letter is to inform you that the faculty of the College of Engineering have approved the proposal for the Department of Aviation with a vote of 151 for to 27 against.

The College of Engineering distributed a Qualtrics ballot to all 542 eligible voting faculty regarding the proposal to transition the Center of Aviation into the Department of Aviation. Faculty were given 10 days to vote; with a reminder email sent during the voting period. 33% of eligible faculty responded, with 178 total votes submitted. Of these, 151 were in favor of the transition and 27 were opposed. This is an approval rate of 85%.

Sincerely,

Rachel Garshick Kleit, PhD
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Associate Dean for Faculty Affairs,
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Proposal to Establish the Department of Aviation

Submitted to
The College of Engineering
The Ohio State University

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July 1, 2025

PREAMBLE: In continuing Ohio's strong tradition and reputation as the birthplace of aviation, we propose to re-establish the Department of Aviation within the College of Engineering. We believe this will enhance the reputation of Ohio State Aviation and its degree programs beyond its current capabilities. The proposed department is designed to achieve high impact applied research, education, and service, addressing key gaps in 21st Century aviation.

Aviation enjoys a long history at The Ohio State University and is the oldest collegiate aviation institution in the United States. In 1917, the United States War Department established the School of Military Aeronautics on campus as one of eight institutions, aimed at training pilots for service in World War I (California, Cornell, Georgia Tech, Illinois, MIT, Ohio State, Princeton, Texas). Of these original eight, Ohio State is the only institution to continuously offer aviation education during that span. Students have continued to study aviation at Ohio State with over 6,500 graduates over 108 years. Since 1956, Aviation has resided within the College of Engineering but supports aviation degree programs housed in three colleges.

In 2012, due to faculty attrition and administration priorities, the Department of Aviation was abolished and replaced by the Center for Aviation Studies (CAS), which does not have Tenure-Initiating-Unit (TIU) status. Furthermore, CAS went through a series of interim and short-lived directors between 2018-2023. Nevertheless, during that time, aviation experienced a resurgence through increased enrollment and research expenditures. However, without TIU status, the Center for Aviation Studies has not been able to recruit and hire tenure-track or practice faculty to leverage and exploit these opportunities for strategic growth.

The Dean of the College of Engineering has invested in Ohio State Aviation by hiring a permanent Director to elevate CAS back to a Department of Aviation. The Director's TIU currently is the Department of Mechanical and Aerospace Engineering. The Dean recently approved the Director's Strategic Plan: "*Where Campus Runways Meet Academic Excellence: 2025-2030.*" The Dean also hired a new Director for The Ohio State University Airport (KOSU). Working together in constant collaboration, these two experienced leaders are working diligently to write the next chapter of Ohio State Aviation.

The proposed effective date of the Department of Aviation is July 1, 2026.

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I) RATIONALE.

A. Vision and Mission.

Vision: The Department of Aviation is a team of faculty and staff, practitioners and researchers, committed to

- Producing early-career professionals who are prepared to enjoy productive and satisfying careers in the Aviation Industry.
- Generating solutions to the challenges and leveraging opportunities in 21st Century Aviation.

Mission: The Center for Aviation Studies promotes and advances aviation through education, research, and outreach.

We accomplish our mission by

- Providing relevant instruction to promote future innovations in the aviation workforce (**Education**).
- Creating interdisciplinary solutions that support aviation modernization (**Research**).
- Increasing accessibility, awareness, and appreciation for the aviation community (**Outreach**).

B. Purpose.

The purpose of the Department of Aviation is to institute expert-level (TIU) authority over the following:

- Developing, approving, and revising aviation curricular content and coursework to support aviation degree programs at Ohio State.
- Delivering all coursework with the AVIATN prefix at the university.
- Determining faculty requirements, recruitment, and criteria for appointment, promotion, and tenure.
- Increasing institutional research capabilities in aviation.
- Determining Ohio State's role in shaping social, economic, commercial, and technical trends in the aviation industry.
- Enhancing Ohio State's reputation among the 131 collegiate aviation institutions in the University Aviation Association (UAA).

The Department of Aviation within the College of Engineering will maintain its own field of study and research to enhance the industry. In partnership with three colleges across the University it will leverage this knowledge to offer three unique degree programs.

- | | |
|--|----------------------------|
| • Bachelor of Science, Aviation | College of Engineering |
| • Bachelor of Arts and Social Sciences, Air Transportation | College of Arts & Sciences |
| • Bachelor of Science, Aviation Management | Fisher College of Business |

The Department of Aviation will enhance the aviation discipline at Ohio State through the following strategic priorities (goals):

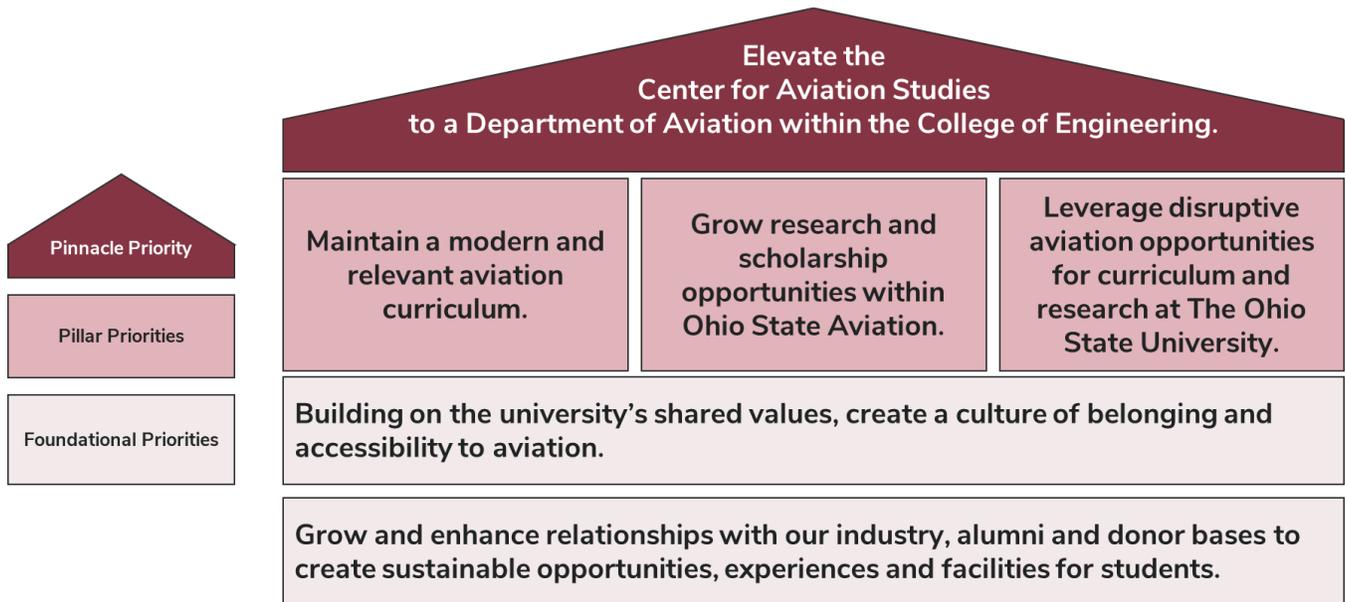


Figure 1: Aviation Strategic Priorities

C. Role of Aviation within the College of Engineering.

The Department of Aviation will be a separate department in the College of Engineering. The Chair will report to the Dean of the College. The CAS Director already reports to the Dean and is a member of the Dean’s Executive Committee. In many ways, CAS already performs many of the functions of a department, such as academic advising and scheduling, faculty course assignments, with a staff including business manager, administrative assistant, and communications director.

The items below map to the academic requirements outlined in the OAA Academic Organization and Curriculum Handbook, University Organization, Academic Department or School (OAA, rev2021, p.8).

a. A recognized, fairly discrete area of academic specialization not already included within the mission of another department.

“The modern-day airline pilot needs to be part meteorologist, mechanic, counselor, public relations specialist, security specialist, record keeper, computer programmer, and flight systems manager (Johnson, 2005, p.10).”

Aviation is an area of applied academic specialization and the operational/technology counterpart to traditional engineering disciplines such as aerospace, aeronautical, systems, or mechanical engineering. Aviation professionals contribute to the operational and practical aspects of aviation such as professional pilot, air traffic controller, aircraft maintainers, aircraft dispatchers, safety inspectors, accident investigators, airport operators, airline managers, etc.

Aviation as a discipline prepares its graduates for careers in a heavily regulated global industry using a Human – Vehicle – System educational model, presented in Table 1.

Table 1: Human-Vehicle-System Educational Model

Human	Vehicle	System
<ul style="list-style-type: none"> • Crew Operations • Administrative Operations • Flight Operations • Human Factors • Service 	<ul style="list-style-type: none"> • Technical Operation • Aircraft Systems • Flight Mechanics • Aircraft Performance 	<ul style="list-style-type: none"> • Airspace / Air Traffic Control • Environment / Weather • Regulatory / Legal / Policy • Security • Socioeconomic • Communication • Airports
<p>Experiential opportunities</p>		

Aviation is recognized as an academic discipline at the national and international levels by the federal government and the following academic advocacy organizations:

1. National Center for Education Statistics, Department of Education.
 - a. Classification of Instructional Program (CIP) Code: [49.01](#)
 - b. Title: Air Transportation
 - c. Subcategories: (NCES, 2025).
 - [49.0101](#): Aeronautics/Aviation/Aerospace Science and Technology, General.
 - [49.0102](#): Airline/Commercial/Professional Pilot and Flight Crew
 - [49.0104](#): Aviation/Airway Management and Operations
 - [49.0105](#): Air Traffic Controller
 - [49.0106](#): Airline Flight Attendant
 - [49.0108](#): Flight Instructor
 - [49.0199](#): Any instructional program in aviation and air transportation services not listed above
2. Aviation Accreditation Board International (AABI).

AABI is the official accreditation body for collegiate aviation programs, recognized by the Council for Higher Education Accreditation. The aviation degree programs at Ohio State are AABI accredited through 2027, with the next accreditation site visit in Autumn 2026. As of January 2025, there are 45 AABI-accredited collegiate institutions worldwide (AABI, 2025).

3. University Aviation Association (UAA).

UAA’s mission is “to promote and foster excellence in collegiate aviation education by providing a forum for students, faculty, staff, and practitioners to share ideas, to enhance the quality of education, and to develop stronger programs and curricula. To influence aviation education policy at all governmental levels. To provide and nurture the linkage between college aviation education, the aviation industry, and government agencies (UAA, About UAA, 2025).” Ohio State is currently one of UAA’s 131 member institutions.

b. Potential academic programs at both graduate and undergraduate levels.

1. Undergraduate.

Undergraduate aviation programs already exist at Ohio State, as mentioned previously in Section I.B. Students not majoring in one of the three programs can also enroll in an aviation minor. The degrees and their intended enrollees are outlined in Table 2.

Table 2: Ohio State Aviation Degree Programs

College of Engineering	College of Arts and Sciences	Fisher College of Business
B.S., Aviation (Professional Pilot Option) Department of Aviation	B.A., Air Transportation (Professional Pilot Option) Department of Geography	B.S., Aviation Management Fisher College of Business
Aviation access for engineering and technology-oriented students	Aviation access for physical and social science-oriented students	Aviation access for business-oriented students
The Department of Aviation manages, maintains, and delivers all Aviation (AVIATN) coursework supporting these degree programs as well as the aviation minor .		

The Professional Pilot Specialization offers students the opportunity to enroll in Flight Education, obtain licensure by the Federal Aviation Administration (FAA), and upon graduation, pursue a career as a professional pilot. In addition, students have ability to take course work to earn their Remote Pilot certificate, as well as their Aircraft Dispatch certificate from the FAA. The Dispatch certificate is recognized as the highest level of non-pilot certificate that can be obtained and is equivalent to the highest pilot certificate, the Airline Transport Pilot.

It is worth noting from Table 2 that Ohio State is the only UAA member of 131 collegiate aviation institutions to spread its degree programs across three different colleges. All other collegiate aviation programs reside within a single college or school. This speaks to the recognition by previous administrations that (1) aviation as a discipline appeals to populations with different interests; as well as (2) a desire by those previous administrations to provide multiple avenues of access to aviation through its degree and minor offerings.

Table 3 provides a summary of the aviation (AVN) coursework required for each degree program. Note that the minimum and maximum credit hour columns are based upon the number of AVN electives allowed for each program. Lastly, the Center for Aviation Studies delivers the culminating experience (capstone) courses for all three degrees: AVN 4500: Aviation Capstone (Air Transportation); AVN 4520: Aviation Capstone – Engineering, and AVN 5000: Air Transportation Analysis II (Aviation Management).

Table 3: Aviation (AVN) Coursework Requirements in Degree Programs

Degree	Total AVN credit hours (% of total degree credits)	
	Minimum	Maximum
Without Professional Pilot Certificate		
B.S., Aviation	39 (32%)	45 (37%)
B.A., Air Transportation	36 (30%)	60 (50%)
B.S., Aviation Management	26 (22%)	
With Professional Pilot Certificate		
B.S., Aviation	51 (42%)	76 (63%)
B.A., Air Transportation	47 (39%)	65 (54%)

2. Graduate.

Ohio State has never offered graduate programs in aviation. However, there are opportunities available. Several other collegiate aviation programs offer graduate coursework in aviation. The Center for Aviation Studies has already begun exploring the development of an aviation graduate certificate.

In general, a master’s degree has traditionally served as the terminal degree in aviation. Some institutions do offer a doctoral degree in aviation. This is further discussed in Section I.C.2. Often, those wishing to serve on faculty

will pursue a doctorate in a related field such as education, policy, technology, or engineering. Finally, many institutions have shifted to an online focus for their graduate programs.

It is the intention of the Department of Aviation to develop an aviation graduate program that aligns with the research capabilities of its faculty and the needs of its strategic partners and the aviation industry at large.

c. A source of faculty members prepared to offer academic work in the academic area concerned.

Approximately 65 collegiate aviation institutions offer graduate coursework in aviation or closely related areas (UAA, Collegiate Aviation Guide, 2024). Only six domestic institutions currently offer doctoral education in aviation: Embry-Riddle Aeronautical University (Florida), Florida Institute of Technology, Liberty University (Virginia), Purdue University (Indiana), St. Louis University (Missouri), and the University of North Dakota.

The Center for Aviation Studies currently has five faculty or staff, educated at the Ph.D. level, who teach and conduct research in aviation. Additionally, the Center currently employs six full-time lecturers to deliver the academic content.

In its strategic planning process, the Director in consultation with the Dean and her staff has developed a hiring plan to grow the faculty of the Department of Aviation to at least ten regular faculty, including 6 tenure-track faculty. With college approval, open tenure-track positions will be filled following national searches, guided by the department's proposed Appointments, Tenure, and Promotions document included in Appendix B, in conjunction with SHIFT guidelines. Lastly, the Department of Aviation actively seeks collaborations with other departments to establish joint and courtesy appointments for their faculty whose research and teaching interests include aviation.

d. An area of academic specialization that offers research and/or public service opportunities in addition to formal classroom/online teaching.

The National Science Foundation offers substantial funding for aviation activities through its many directorates. An award search using the keywords “aviation” and “air transportation” yielded 154 active awards (as of Jan 2025), totaling \$139.8M (NSF, 2025).

The FAA provides significant funding opportunities as well. In FY 2024, the FAA awarded grants in three areas, totaling \$85.2M (FAA, 2025). The Center for Aviation Studies was the recipient of some of these awards.

- Aviation Research Grants: 27 grants totaling \$9.9M.
- Aviation Workforce Development Grants: 22 grants totaling \$13.5M.
- Centers of Excellence Grants: 140 grants totaling \$61.8M.

A review of research awards and expenditures from FY2013 to FY2025 reveals that the Center for Aviation Studies has continued active research in the discipline, according to Table 4 below.

Table 4: CAS Research Expenditures: 2013-2025

Number of Awards	Total Award	Total Cost Share	Total
41	\$6.98M	\$1.75M	\$8.72M

The Ohio State University has been a core university member of the following FAA Centers of Excellence since their inception:

- Alliance for System Safety of UAS through Research Excellence (ASSURE)
- National Center of Excellence for Aviation Operations Research (NEXTOR)

- Partnership to Enhance General Aviation Safety, Accessibility and Sustainability (PEGASAS)
- Technical Training and Human Performance (TTHP)

The Center for Aviation Studies employed the Ohio State site director for the NEXTOR, PEGASAS, and TTHP centers of excellence.

Aviation performs several public service roles to include professional societies and advocacy groups, collegiate aviation, general aviation, outreach, and annual events.

Professional Societies and Advocacy Groups. There are numerous professional societies connected to the aviation discipline. These societies provide several services to the industry and community through membership, networking, events, advocacy, journals, book press services, student competitions, conferences, recognized standards, and archived proceedings.

Collegiate Aviation Organizations: The purpose of these organizations is to provide access, accreditation, networking, and commonality across the spectrum of institutions offering collegiate aviation. Some offer publication opportunities through journal and conference activity.

General Aviation Organizations: These are national associations that provide services for aircraft owners as well as non-professional pilots. They are particularly important for performing outreach activities to introduce local populations, and specifically children to aviation.

Outreach Organizations: These organizations generally focus on youth in grades K-12.

Annual Events: These are largely aviation displays in different regions of the country. For purposes of outreach or public service, these are large scale activities that attract thousands of people.

The more prominent aviation organizations providing public and professional service are listed in Table 5.

Table 5: Aviation in Public and Professional Service

Category	Organization
Professional & Advocacy	Air Traffic Control Association (ATCA) American Institute of Aeronautics & Astronautics (AIAA) Association for Unmanned Vehicle Systems International (AUVSI) American Association of Airport Executives (AAAE) Aerospace Industries Association (AIA) National Business Aviation Association (NBAA) Organization of Black Aerospace Professionals (OBAP) Latino Pilots Association (LPA) NGPA (NGPA) Royal Aeronautical Society – United Kingdom (RAeS) Society of Flight Test Engineers (SFTE) The Ninety-Nines International Organization of Women Pilots (99s) Vertical Aviation International (VAI) Vertical Flight Society (VFS) Women in Aviation International (WAI)
Collegiate Aviation	Aviation Accreditation Board International (AABI) Alpha Eta Rho Aviation Fraternity (AHP) National Intercollegiate Flight Association (NIFA) University Aviation Association (UAA)

Category	Organization
General Aviation	Aircraft Owners and Pilots Association (AOPA) Experimental Aircraft Association (EAA)
Outreach	Buckeye Tigers – Local, Columbus Metropolitan Area (Link) Civil Air Patrol (CAP) Taxi to Takeoff!! – Local, Dublin City Schools (Link) Youth Aviation Adventure (YAA)
Annual Events	Cleveland National Air Show (Link) Columbus Air Show (Link) EAA AirVenture – Oshkosh, Wisconsin (Link)

Ohio State Aviation has a robust presence with many of these organizations.

e. An area of academic specialization that has the potential for developing national or international recognition as an academic discipline.

The University Aviation Association lists 131 collegiate aviation members, each having a distinct unit, whether it be a section, department, school, or college of aviation (UAA, 2024). Aviation as an academic specialization has already developed national and international recognition as an academic discipline.

Notably, there are several avenues for refereed journal publication in aviation. AIAA offers several journals to include the *AIAA Journal*, *Journal of Air Transportation*, *Journal of Aerospace Information Systems*, and *Journal of Aircraft*, among others. Additional journals include the *International Journal of Aviation, Aeronautics, and Aerospace*, and *Journal of Aviation/Aerospace Education and Research*. Lastly, UAA publishes the *Collegiate Aviation Review*.

f. An area of academic specialization that either has or is in the progress of developing a student clientele either for the purpose of major programs or as an important "service" discipline to other major programs.

Aviation has always maintained a satisfactory student clientele at The Ohio State University. The Center for Aviation Studies has continued to increase the numbers of credit hours taught, the number of lecturers associated with the Center and faculty assigned to CAS from other departments, while maintaining and increasing its level of academic research and external collaborations. Section E provides historical enrollment and will expand on projections for maintaining and growing the student clientele.

In terms of service discipline, the evolution and proliferation of drone technology across several different disciplines has necessitated new operational requirements and certification for this disruptive technology. Remote pilot education and flight services are significant opportunities to serve other major programs.

g. A minimum of 10 faculty positions spread through at least the three academic ranks from assistant professor to professor.

Table 6: 4-Year Faculty Projections

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
AY	26-27	27-28	28-29	29-30	30-31	31-32	32-33	33-34
Tenure Track	1	2	6	6	7	8	9	10
Practice Track	3	4	4	4	8	8	8	8
Associated Faculty	7	6	6	6	0	0	0	0
Total Faculty	11	12	14	16	15	16	17	18

Table 6 provides the department’s faculty projections. The Department Chair will fill the first tenured professor position in the new department, followed by incremental growth in subsequent years. Table 6 represents the highest estimate of total faculty over the next four years. Depending upon the outcome of a SHIFT search, some of our interested practice faculty may receive an offer to become tenure-track faculty. Research and curricular direction will govern our faculty hiring requirements from 2030 onwards. Table 6 clearly shows a path forward to achieving a positive ratio of tenure-track to practice faculty.

The desired research competencies in tenure-track faculty include, but are not limited to, aviation safety and human factors, aviation education and policy, aviation system architecture, aircraft electrification, and air traffic management. Desired practice faculty qualifications include air traffic management and crew resource management in jet aircraft.

h. Courses that enroll students for a minimum of 2,000 semester credit hours per semester.

Aviation currently has 50 active courses in the [University Catalog](#) from the 2000 to 5000 level. Other courses are in development to continue aviation curricular modernization efforts. Table 7 provides the total and semester credit hours of student enrollment since AY 2015-16. Aviation has enjoyed year-over-year growth during those nine years. CAS has met the 2,000-credit-hour enrollment requirement since AY 2019-20 (highlighted in green).

Table 7: Aviation Course Credit Hour History

AY	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
Annual Credit Hours	2780	2909	3014	3782	4682	5048	5545	5866	6281
Semester Credit Hours	1390	1455	1507	1891	2341	2524	2773	2933	3141
Annual Growth		5%	4%	25%	24%	8%	10%	6%	7%
Cumulative Growth		5%	8%	36%	68%	82%	99%	111%	126%

D. Describe similar units at other universities in Ohio, in the Big Ten, and in the United States and their levels of success.

Table 8 provides a summary of the aviation programs at other relevant universities. The table groups programs into three categories (1) Big 10 institutions, (2) peer or near-peer institutions, and (3) Ohio institutions. The institutions highlighted in boldface are considered the most relevant to our proposal because they are all members of the University Aviation Association and have more than one AABI-accredited program.

Table 8: Collegiate Aviation Comparison to Relevant Institutions

Institution (Aviation Unit Home)		UAA Member	Ph.D.	# Accredited Programs	Undergraduate Students	Graduate Students	Flight School
Big 10	The Ohio State University (Center for Aviation Studies)	•		5	451	0	Unit*
	Purdue University (School of Aviation and Transportation Technology, Polytechnic Institute)	•	•	2	1650	230	Unit*
Pe	Arizona State University (Program in The Polytechnic School)	•		4	652	16	Contract

Institution (Aviation Unit Home)		UAA Member	Ph.D.	# Accredited Programs	Undergraduate Students	Graduate Students	Flight School
	Auburn University (School of Aviation)	•		2	615	0	Unit*
	Embry-Riddle Aeronautical University – FL (College of Aviation)	•	•	9	2811	192	Unit
	Florida Institute of Technology (College of Aeronautics)	•	•	4	512	30	Unit
	Liberty University (School of Aeronautics)	•	•	4	2788	163	Unit
	University of North Dakota (John D. Odegard School of Aerospace Sciences)	•	•	3	2000	42	Unit
	University of Oklahoma (School of Aviation)	•		4	415	0	Unit*
Ohio	Kent State University (School of Aeronautics est. 2025)	•		5	555	9	Unit*
	Bowling Green State University (School of Aviation)			2	350	0	Contract
	Ohio University (Department of Aviation)	•		0	217	0	Unit*
	University of Cincinnati – Clermont (Department of Math, Computers, Geology & Physics)			0	Not published	0	Contract
	Wright State University (College of Health, Education, and Human Services)			0	Not published	0	Contract

*Indicates university-owned airport

Big 10 Institutions. **Purdue University** is the only other Big 10 institution with a collegiate aviation program. The program resides in the School of Aviation and Transportation within the Polytechnic Institute. Aviation has existed at Purdue since 1935. It enjoys a robust enrollment with four undergraduate majors, two graduate certificates, one masters degree, a combined BS-MS program, and two doctoral programs. Graduate coursework is offered in person and online.

Research areas include biofuels testing and development, gender issues in aviation, evaluation of fuel blends, high performance turbine operations, and human factors and crew resource management. Its facilities include an aviation electronics lab, aviation materials lab, engine test cells, hangar of the future, simulator center with 12 flight simulators, operations control center, powerplant, and advanced composite lab. Like Ohio State, Purdue owns its own airport and fleet of flight training aircraft.

Purdue and Ohio State enjoy a collaborative relationship. Both institutions are core members of the PEGASAS Center of Excellence (FAA). Additionally, both Purdue’s airport director and a senior faculty member occupy two positions on the [Ohio State Aviation External Advisory Board](#).

Peer Institutions. As mentioned previously, there are currently 131 UAA member institutions. In addition to UAA membership and AABI accreditation, peer institutions listed in Table 8 were selected based upon (1) overall institutional size, infrastructure, and research status, (2) number of students, or (3) reputation and influence in the

collegiate aviation community. The information provided for each institution below was obtained from institutional online data.

Arizona State University offers five undergraduate majors in aviation and one master of science in technology degree. The aviation program resides in The Polytechnic School. The faculty are composed of 100% clinical positions. The aviation program has a healthy enrollment, slightly larger than Ohio State. Research and educational infrastructure at Arizona State include a high-altitude hyperbaric training chamber, and a simulator building with air traffic control simulation laboratory and five flight simulators. Its geographic location provides the annual weather for year-round flying.

Auburn University's School of Aviation resides in the College of Liberal Arts. It offers two undergraduate majors, an aviation minor, and aviation hospitality management certificate with no graduate programs. Its enrollment is comparable to Ohio State. The School of Aviation has one tenure-track faculty member, with two practice faculty, and several affiliated faculty. Research is not a priority at Auburn, but it has significant infrastructure with an aviation academic complex and simulator center with significant funding by Delta Airlines.

Embry-Riddle Aeronautical University (ERAU), Daytona campus is the largest aviation program in the United States. All aviation degrees reside in the College of Aviation, which offers a significant number of degrees at the associates, bachelors, as well as a number of certificates. At the graduate level, ERAU offers 10+ masters degrees and two Ph.D.s. The College of Aviation faculty consists of approximately 51% in tenure-track positions, teaching approximately 3,000 students. This is the one collegiate aviation institution with over 100 faculty. There are 32 distinct labs supporting research and education in the areas of aeronautical science, applied aviation sciences, aviation maintenance science, flight, and the school of graduate studies.

Florida Institute of Technology is one of five institutions in the U.S. to offer education at the doctoral level. All aviation programs are housed in the College of Aeronautics. It offers four AABI accredited programs to include professional pilot with a comparable fleet to Ohio State. The college employs approximately 20 faculty with 40% tenure-track, 35% practice, and 25% associated faculty.

Liberty University has one of the newest aviation programs, having begun formalizing and expanding its program in 2002. The aviation degrees reside in the School of Aeronautics. The school offers five undergraduate majors, one masters degree, and a Ph.D. in Aviation. All graduate work is 100% online. Approximately, 38% of the faculty appears to be tenure-track. By enrollment, Liberty University has the second largest collegiate aviation program in the country.

The **University of North Dakota** is the third largest aviation program in the United States. Begun in 1968, Its aviation program is housed in the Department of Aviation of the John D. Odegard School of Aerospace Sciences. There are four undergraduate majors, three of which are accredited. There is a masters degree and a Ph.D. in aviation. Approximately 39% of the faculty are tenure-track.

The **University of Oklahoma's** collegiate aviation program has existed since 1947. The School of Aviation resides in the College of Atmospheric and Geographic Sciences. Oklahoma offers four undergraduate majors in aviation. It does not offer any majors at the graduate level. Some aviation research is conducted as part of the FAA Centers of Excellence. Oklahoma has a very low faculty count with only 25% being tenure-track.

Ohio Institutions.

Bowling Green State University has two accredited aviation degrees. They are housed in a School of Aviation in the College of Technology, Architecture, and Applied Engineering. There are only five full-time faculty. The entire flight program is supplied by external contract. Wood County Regional Airport is located on the campus of Bowling Green but is owned by the county.

Kent State University's aviation programs reside in the College of Aeronautics and Engineering. Like Ohio State, the university owns its own airport. It offers five undergraduate programs and one online master's degree in aviation. The aviation program formalized in 1967 and was the first collegiate aviation institution in the State of Ohio to receive AABI accreditation. Approximately 30% of its aviation faculty are tenure-track.

The other Ohio institutions with aviation programs are listed in Table 8. However, due to their size and lack of accreditation, they are not discussed in further detail.

E. Enumerate proposed major programs.

The major programs supported by the Department of Aviation are the three existing majors listed previously in Table 2.

- Bachelor of Science, Aviation College of Engineering
- Bachelor of Arts and Social Sciences, Air Transportation College of Arts & Sciences
- Bachelor of Science, Aviation Management Fisher College of Business

i. Make enrollment projections (include justification for the estimates).

Table 9 provides the 11-year enrollment history of all aviation students at Ohio State. Aviation shows a history of sustained growth over the past 11 years in all three majors. The student enrollment for Academic Year 24-25 is almost triple that of Academic Year 2014-15.

Table 9: Ten-Year Enrollment History

Major	Academic Year										
	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	24-25
B.S., Aviation	47	45	50	53	64	74	91	135	127	165	199
B.A., Air Transp.	110	118	135	146	170	187	219	227	245	224	207
B.S., Avn Mngmnt	16	8	14	12	17	23	35	36	33	38	45
Total Avn Majors	173	171	199	211	251	284	345	398	405	427	451
Annual Increase		-1%	16%	6%	19%	13%	21%	15%	2%	5%	6%
Cumulative Increase		-1%	15%	22%	45%	64%	99%	130%	134%	147%	161%

Figure 2 provides a graphic depiction of the percentage of aviation students by major over the past 11 years. The B.S. in Aviation Management has held consistently near 10% of the total enrollment. Over the past 11 years, however, the B.S., Aviation and B.A., Air Transportation majors have moved toward parity, both contributing approximately 45% in enrollment percentage.

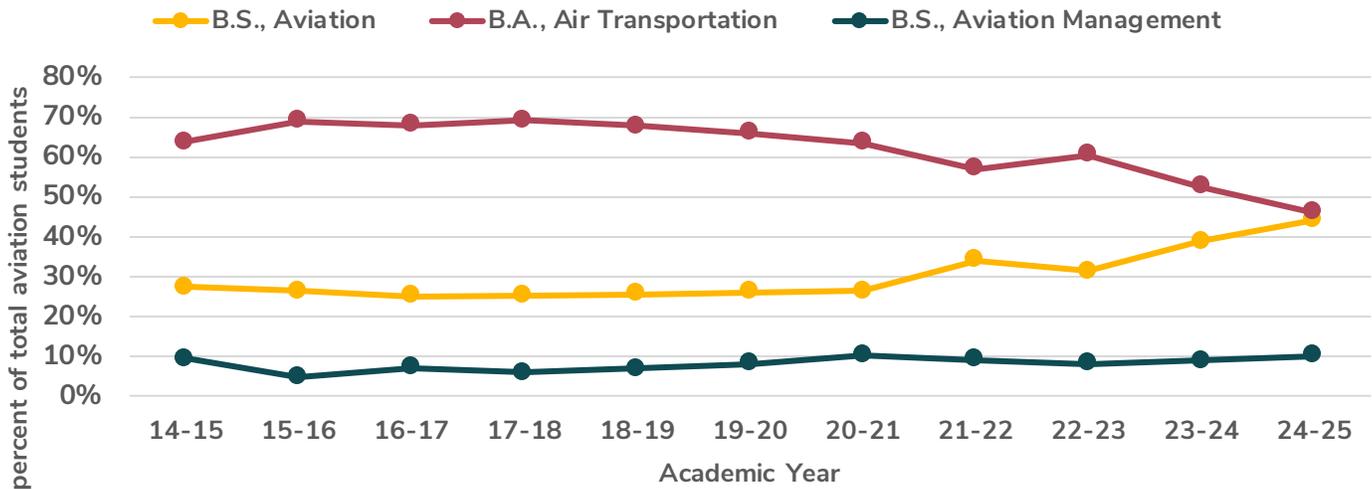


Figure 2: Percentage of Students in Each Major

Enrollment in all three programs is healthy. Air transportation has nearly doubled its enrollment. Aviation and aviation management have tripled their enrollment or better.

Enrollment growth is limited by infrastructure, faculty, and flight-line capacity. Under the current strategic plan, we would like to see enrollment between 500 and 700 students annually.

ii. State goals of enrollees in proposed programs.

B.S., Aviation. Students choosing this degree path have career aspirations to run airports and fly planes, as well as design, manage and operate aviation systems all over the world. For every pilot in an aircraft, there are numerous other aviation experts responsible for successfully planning and operating a flight. Example careers, other than work as a professional pilot, include airport and airline management, flight support and planning, government and regulatory oversight, and aviation research and development.

B.A., Air Transportation. Students gain a broad understanding of how aviation affects and is affected by social forces like the economy, international relations, and government policy. This is for students who wish to pursue an aviation career in the areas above or become a professional pilot, but are not comfortable with the study of physics, calculus and engineering, or business logistics, finance and accounting.

B.S., Aviation Management. Students choosing this program typically hope to work for either an airline or airport in a business role, or work for financial firms specializing in the aviation industry through lending or other business operations.

iii. Estimate opportunities for graduates of proposed programs.

Many different opportunities exist for graduates of the degree programs. Table 10 lists the wide range of careers available within the aviation industry. The table lists the careers by category.

Table 10: Typical Careers for Aviation Graduates

Category	Careers
Professional Pilot	<ul style="list-style-type: none"> • Airline / Cargo Transport • Corporate / Commercial • Military Aviation

Category	Careers
Airline Operations	<ul style="list-style-type: none"> • Operations • Aircraft Dispatch • Management • Finance
Airport Operations	<ul style="list-style-type: none"> • Fixed-Base Operations (FBO) • Port Authorities • Maintenance, Repair and Overhaul (MRO)
Aviation Oversight	<ul style="list-style-type: none"> • Safety Inspector / Accident Investigation • Policy & Regulatory Compliance • Operations Development and Assessment • Air Traffic Management (ATM) and Control (ATC)
Engineering Operations	<ul style="list-style-type: none"> • Computer-Aided Design and Manufacturing (CAD / CAM) • Quality Control (QC) • Production Control (PC) • Technical Support
Disruptive Technology	<ul style="list-style-type: none"> • Advanced Air Mobility and UAS • Uncrewed Traffic Management (UTM) • Virtual/Augmented/Extended Reality Simulation

Professional pilot is only one of category of several jobs available in the aviation industry. To further illustrate real-world industry opportunities, Table 11 provides the 2023 employee data for our most strategic airline partner, Southwest Airlines (SWA, 2023). Pilots only make up 14.4% of the SWA workforce.

Table 11: 2023 Employee Breakdown - Southwest Airlines

Employee Category	Employees	%
Pilots	11429	14.4%
Flight Attendants	20986	26.4%
Dispatchers, Meteorologists, Simulator Technicians, Flight Training Instructors	848	1.1%
Ground Operations	24963	31.4%
Maintenance Operations	3810	4.8%
Customer Support	3468	4.4%
Executives	70	0.1%
Other Leaders	6276	7.9%
Individual Contributors	7669	9.6%
Total	79519	100%

Table 11 does a good job of capturing the ratio of non-pilots to pilots in the airlines, roughly 6 non-pilots to one pilot. Add to that the number of regulatory personnel, airport personnel, air traffic controllers, etc., that ratio only grows. In other words, airplanes and pilots create jobs, an architecture, and an ecosystem.

F. State opportunities provided for study or application of the subject beyond the structure of the classroom/online interaction space.

Significant opportunities exist for both students and faculty beyond the instructional space. As already mentioned, several opportunities exist at the local, national, and international levels. Several of our students secure internships and ambassador positions with industry. The Center for Aviation Studies has instituted an

international travel abroad program for students to travel to other countries and experience international aviation. These trips have included Brazil, France, Spain, Switzerland, and the United Kingdom. Additionally, our faculty set up regional and national trips to visit airport or other major aviation facilities around the country.

Additionally, KOSU airport as a learning laboratory consists of several non-traditional learning spaces to include aircraft, flight simulators, a crash lab run by two faculty who are National Transportation and Safety Board-trained accident investigators. The airport is FAA Part 139 certified, meaning it can serve all aviation up to and including airline traffic. In this capacity, it provides the same functions as major airports around the country, to include a working air traffic control tower. Future opportunities include an air traffic control laboratory.

G. Estimate the potential to develop national or international recognition as an academic discipline.

The field of aviation has already achieved national and international recognition as an academic discipline, as evidenced by the numerous examples of professional societies, research, publication outlets to include peer-reviewed journals, and an accreditation body previously mentioned in this proposal. Faculty within CAS already enjoy recognition to include a Fellow of the Royal Aeronautical Society, member of the ALICANTO International Association of Aviation and Aerospace Education. Lastly, for the past 28 years, Dr. Nawal Taneja, Professor Emeritus, has organized and chaired the International Airline Symposium, which he plans and runs through Ohio State.

H. Describe previous submittals of the same or similar unit proposals (indicate reasons for withdrawal or disapproval).

Not applicable.

II) DEMAND

A. Give evidence of sufficient demand by students, faculty, general public, and/or business.

Table 9 clearly showed the 10-year growth in student enrollment. Additionally, Boeing published a 20-year commercial aviation market outlook in 2024 forecasting aircrew growth, fleet growth, and passenger growth (Boeing, 2024). These are presented in Table 12.

Table 12: Boeing Commercial Market Outlook, 2024-2043

	USA/Canada	World
Airline Traffic Growth	+3.40%	+4.70%
Airline Fleet Growth	+1.50%	+3.20%
Pilot Demand	+123K	+674K
Technician Demand	+123K	+716K
No. Aircraft Deliveries	8985	43975
Annual Services Demand (Maintenance & Operations)	\$995B	\$4.4T

Lastly, the Bureau of Labor Statistics' Occupational Outlook Handbook provides a 10-year outlook for aviation-related positions (BLS, 2024).

Table 13: Aviation Occupational Outlook - Bureau of Labor Statistics

Occupation	Median Salary	Number of Jobs	10-yr Job Outlook	10-yr Job # Change
Airline & Commercial Pilot	\$171,000	152,800	5%	8,000
Air Traffic Controller	\$137,000	24,000	3%	700

Occupation	Median Salary	Number of Jobs	10-yr Job Outlook	10-yr Job # Change
Airport Director*	\$99,200	211,800	9%	19,100
Logistician	\$79,400	237,100	19%	45,800
Management Analyst	\$99,000	1,018,300	11%	107,900
Operations Research	\$83,640	123,100	23%	28,300
Production Control	\$116,970	230,100	3%	6,500
Production Control Technologist	\$62,610	74,500	4%	3,000
Safety Inspector / Auditor	\$78,600	153,500	14%	21,900

*This position outlook falls under the Transportation, Distribution, and Storage category.

B. Estimate the duration of demand (long/short term).

The enrollment trend in aviation at Ohio State, combined with the market and government forecasts indicate a healthy long-term demand for collegiate aviation programs nationwide. It is also important to note that student demand in aviation has traditionally been strong at Ohio State. Anecdotally, the reputation of The Ohio State name brand has also been a strong draw for our students.

C. State the reasons that other units are not able to meet the demand.

Other units are not able to meet this demand due to the lack of credentials, certification, or immersion in the aviation industry that only an aviation TIU can provide. Aviation does provide several opportunities for effective collaboration between disciplines across the university. However, no other unit at Ohio State understands the FAA relationships required to govern many aspects of our academic program. Nor do they have the competencies to understand the relationships between the different sub-disciplines in aviation. Other units are therefore ill-equipped to develop a comprehensive strategy for Ohio State Aviation as well as the faculty and infrastructure required to keep it aligned with aviation modernization, research, and development.

III) COST

A. Describe anticipated internal funding and external funding potential.

Internal funding potential. CAS has demonstrated increased demand and growth in credit hour offerings over the past 11 years. We believe that we can continue to increase the demand and growth through (1) deliberately modernizing the aviation courses at Ohio State, (2) expanding our drone courses as electives, a separate minor, or general education courses, and (3) establishing an online graduate program.

Our aviation modernization plan includes the acquisition of traditional and virtual reality flight simulators to incorporate new course sequences as well as work with the FAA to fundamentally transform Part 141 flight training, revolutionizing professional pilot training and preparation. Drones and other uncrewed aviation systems (UAS) have revolutionized and disrupted several industries. Our basic courses are applicable to a wide range of majors throughout the university. We intend to pursue opportunities to expand access to our drone coursework. Lastly, we must establish an online graduate program as Purdue and several of our peer institutions have already done.

External funding potential. CAS already has an established track record with research over the past decade while only having one tenure-track faculty in that time, with a bulk of the research conducted by practice faculty or staff. Research funding is expected to increase in the near term through traditional government grants, cooperative agreements, and industry connections, especially with an increase in tenure-track faculty.

B. Compare cost of proposed unit with that of like institutions with similar academic units.

We would expect the cost of the proposed unit to be similar to other departments within the College of Engineering or at our sister institutions. Unfortunately, actual budget numbers are not published nor available. Table 14 below provides a breakdown of faculty between tenure-track, practice, and affiliated faculty. This data was compiled based upon online faculty data from each institution for Academic Year 2024-25.

There are some unique budgetary realities with The Ohio State model. Because the degrees reside in different colleges, students pay different amounts for access to aviation. Students within the College of Engineering are subject to the engineering program fee which covers the acquisition and upkeep of technology, financial aid, etc. Students in the Aviation Management and Air Transportation major are not subject to the fee. This creates a unique inequity for students in different programs paying different amounts for the same services.

Table 14: Approximate Faculty Breakdown of Relevant Institutions

Institution	Tenure-Track		Practice		Affiliated		Total
Purdue University (School)	15	33%	12	27%	18	40%	45
Arizona State University (Program in School)	0	0%	7	100%	0	0%	7
Auburn University (School)	1	4%	2	8%	21	88%	24
Embry-Riddle Aeronautical University – FL (College)	57	51%	49	44%	5	5%	111
Florida Institute of Technology (College)	8	40%	7	35%	5	25%	20
Liberty University (School)	10	38%	11	42%	5	19%	26
University of North Dakota (School)	12	31%	23	59%	4	10%	39
University of Oklahoma (School)	2	25%	3	38%	3	38%	8
Bowling Green State University (School)	2	40%	3	60%	0	0%	5
Kent State University (Program in College)	3	30%	5	50%	2	20%	10
Average	11	37%	12	41%	6	21%	30
The Ohio State University (8-year goal)	10	56%	8	44%	0	0%	18

The data in Table 14 combined with the descriptions of each institution provided in Section II.D. is meant to exemplify and provide insight into the diversity of collegiate aviation faculty around the country. They vary in the number and type of major programs that they offer. Some have robust research programs and infrastructure; others focus on undergraduate education. The number and type of faculty vary greatly among institutions. The data from these select institutions indicates a fairly even mix of tenure-track and practice faculty, supplemented with a small percentage of lecturers.

C. Evaluate cost of additional faculty that may be needed.

Over the next four years, the Department of Aviation will seek to fill six tenure-track positions as originally presented in Table 6. These new positions will require salary and start-up. This requires an annual rate budget and one-time cash expenditures.

CAS fiscal balances are presented in Appendix A. Since CAS does not have TIU status, we have been primarily reliant on tuition revenue, the engineering program fee, and philanthropy to meet our requirements. The college has assisted us in providing staff to support students and faculty.

D. State adequacy and availability of facilities as well as faculty.

Current coursework is offered with current facilities. Lecture courses are typically assigned out of the classroom pool on campus, with some flight ground courses being offered in the classrooms of the Knowlton Executive

Terminal at KOSU Airport. The airport provides lab space for our suite of flight simulators. There are no lab spaces on main campus currently utilized by CAS, other than an office in Bolz Hall, where our drone fleet is maintained.

Faculty and staff offices are currently split. Faculty, associated faculty, and advising staff occupy office space on the 2nd floor of Bolz Hall. Our business manager and communications director occupy office space at the airport. Hoteling space is available at both Bolz Hall and the airport.

Main campus. The CAS Director is working with the Associate Dean for Facilities for an Aviation master plan for main campus. The primary requirements include (1) adequate office space for faculty and staff growth, and (2) aviation laboratory space for offering aircraft dispatch and air traffic control coursework. Additionally, there is no aviation immersive space on main campus. Modernization will require the acquisition of additional hardware that includes the following simulation capabilities: air traffic control, drone flight, and virtual reality cockpit environment. This infrastructure would serve both our programmatic content and research activities.

KOSU Airport. There is available office space in the community hangars at the airport. These offices require some renovation, but could serve as research and additional lab space for faculty, especially if their research requires being at the airport.

IV) OTHER

A. Include information regarding the use of consultants or advisory committees in the development of the proposal, with copies of reports from such consultants or advisory committees.

No consultants or advisory committees were used in the development of this proposal.

B. Propose a date for the unit to be effective:

The proposed effective date is **July 1, 2026**. The planned timeline for implementation follows in Table 15.

Table 15: Milestones to Department of Aviation

No.	Milestone	Date
1	Draft full proposal.	Jan – Feb 2025
2	Draft APT document.	Feb - Mar 2025
3	Submit proposal to the <ul style="list-style-type: none"> • College of Engineering • College of Arts & Sciences • Fisher College of Business • Office of Academic Affairs (OAA). 	Apr – May 2025 2025
4	Meet with CoE Executive Committee, share draft proposal, and collect feedback.	Apr 2025
5	Introduce department concept to CCAA to prepare for formal vote in fall.	May 2025
6	Submit full proposal to CCAA for discussion and approval.	Aug 2025
7	Distribute department “pitch video” to CoE faculty via email.	Aug 2025
8	Visit department faculty meetings and socialize department concept.	Sep - Nov 2025
9	Redistribute proposal and pitch-video to CoE faculty via email.	Oct 2025
10	Present final proposal for vote by CoE faculty at All Faculty Meeting	Nov 2025
11	Submit proposal to University Council on Academic Affairs (CAA).	Dec 2025
12	CAA committee discusses and votes on proposal.	Jan 2026
13	Schedule with University Senate’s Steering Committee.	Jan 2026
14	University Senate Faculty Council discusses and votes.	Spring 2026

No.	Milestone	Date
15	University Senate discusses and votes.	Spring 2026
16	Ohio State Board of Trustees discusses and votes.	May 21, 2026
17	Establish Department of Aviation.	July 1, 2026

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APPENDIX A: CAS BUDGET REVIEW & STRATEGY.

CAS and the college are currently preparing a budget model and MOU for seeding the initial investment for the Department of Aviation.

Ledger Account	FY2022	FY2023	FY2024	FY2025
Total Sources	\$1,382,688.66	\$1,970,044.53	\$1,955,864.69	\$2,108,993.76
Sources	\$1,353,316.66	\$1,261,290.97	\$1,073,260.19	\$1,178,428.92
Total General Funds Allocation	\$1,050,715.00	\$901,168.28	\$516,318.00	\$541,975.00
Grants and Contracts	\$141,797.12	\$37,708.75	\$142,235.09	\$349,100.44
Earnings	\$20,000.00	\$33,775.00	\$76,240.13	\$43,782.60
All Investment Income	\$100,707.54	\$110,314.77	\$143,325.26	\$163,977.78
Advancement Activity	\$40,097.00	\$177,235.42	\$194,842.65	\$79,593.10
All Student Fees	\$0.00	\$1,088.75	\$0.00	\$0.00
Non-operating Revenues	\$0.00	\$0.00	\$299.06	\$0.00
Transfers In	\$29,372.00	\$708,753.56	\$882,604.50	\$930,564.84
Total Uses	\$1,563,821.30	\$1,790,101.86	\$1,888,099.75	\$2,320,092.52
Transfers Out	\$7,440.00	\$59,174.15	\$26,946.70	\$954.45
Uses	\$1,556,381.30	\$1,730,927.71	\$1,861,153.05	\$2,319,138.07
Salaries	\$999,773.10	\$1,089,774.89	\$1,200,511.84	\$1,228,460.36
Salaries: Faculty	\$494,935.14	\$573,605.72	\$603,179.77	\$702,094.66
Salaries: Staff	\$370,483.59	\$443,167.79	\$473,942.59	\$401,558.66
Salaries: Graduate Associates	\$32,238.00	\$0.00	\$0.00	\$1,929.00
Salaries: Hourly Students	\$37,416.07	\$31,921.08	\$33,503.76	\$23,726.78
Salaries: Other Pay	\$64,700.30	\$41,080.30	\$89,885.72	\$99,151.26
Benefits	\$255,910.79	\$305,694.07	\$342,135.48	\$343,815.34
All Fee Authorizations	\$44,609.00	\$9,640.00	\$0.00	\$0.00
All Student Aid	\$13,397.00	\$31,337.00	\$37,263.25	\$53,079.13
Supplies and Services	\$242,691.41	\$294,481.75	\$281,242.48	\$688,783.24
All Capital Expenditures	\$0.00	\$0.00	\$0.00	\$5,000.00
Net Margin	(\$181,132.64)	\$179,942.67	\$67,764.94	(\$211,098.76)
<u>Balance Information</u>				
Beginning Equity	\$755,741.68	\$574,609.04	\$754,551.71	\$822,316.65
Net Margin	(\$181,132.64)	\$179,942.67	\$67,764.94	(\$211,098.76)
Ending Equity	\$574,609.04	\$754,551.71	\$822,316.65	\$611,217.89

APPENDIX B: AVIATION RESEARCH STRATEGY

The purpose of this appendix is to provide additional context for the viability of aviation research and how department status increases Ohio State’s capabilities and profile.

Referring again to Table 1 of the proposal, aviation is highly applied and inter-disciplinary, incorporating the disciplines of aviation, business, education, engineering, health sciences, law, liberal arts, social and physical sciences, and technology.

Table 1: Human-Vehicle-System Model

Human	Vehicle	System
<ul style="list-style-type: none"> • Administrative • Flight Operations • Human Factors • Service 	<ul style="list-style-type: none"> • Technical Operation • Aircraft Systems • Flight Mechanics • Aircraft Performance 	<ul style="list-style-type: none"> • Airspace / Air Traffic Control • Environment / Weather • Regulatory / Legal / Policy • Security • Socioeconomic • Communication • Airports
Experiential opportunities		

Faculty Requirements.

The terminal degree for all tenure-track faculty and research faculty positions in the Department of Aviation is a doctoral degree. These include the doctor of philosophy (Ph.D.), doctor of aviation (Av.D.), doctor of engineering (D.Eng), doctor of education (Ed.D.), and juris doctor (J.D.) degrees.

For professional practice and associated faculty, the terminal degree is generally the master’s degree. Additionally, there are professional certifications that, when combined with experience, may substitute for a traditional academic degree. These may include accredited airport executive (AAE), flight and/or ground instructor certification, airline transport/cargo pilot (ATP/CTP), lesser pilot certifications, air traffic controller certification, or aircraft dispatch certification.

Increasing Ohio State’s Competitive Research Advantage.

As the state’s flagship institution, The Ohio State University enjoys a large number of robust colleges, departments, and research centers, conducting impactful research in many areas, to include aviation. A Department of Aviation provides a home for aviation-centric researchers who can establish and strengthen a powerful network across the university and state. None of our peer or aspirational collegiate aviation institutions have such a robust number of established research capabilities.

While many of these centers focus on traditional fundamental research, partnerships with researchers from the Department of Aviation allow us to take advantage of different capabilities to perform applied research that enhances the aviation system domestically and abroad.

An example framework is presented in Figure 3 for a research network around Advanced Air Mobility (AAM), an emerging disruptive technology in aviation characterized by low-level, autonomous, electrified aircraft transporting cargo, sensors, and passengers over small distances. The required interdisciplinary competencies are presented as well as the Ohio State centers, departments, and colleges that comprise the AAM research network.

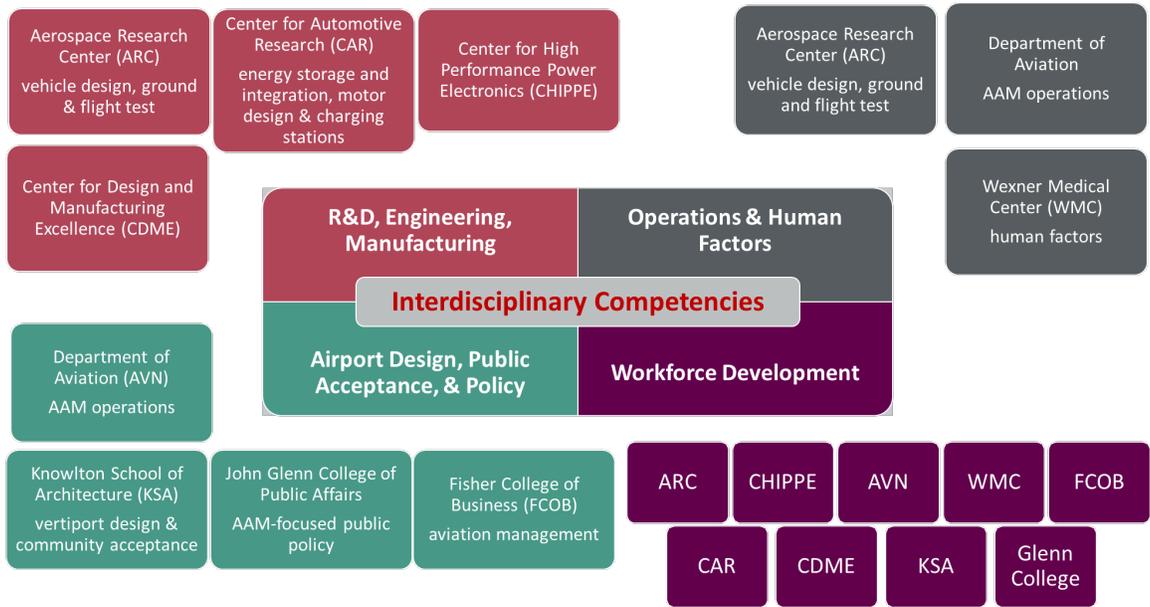


Figure 3: Ohio State Advanced Air Mobility Research Network

In the AAM space, the fundamental and applied research activities include, but are not limited to, the following:

Table 16: Ohio State AAM Research Activities

Competency	Research Activities / Areas
R&D, Engineering, Manufacturing	<ul style="list-style-type: none"> • Composite structures • Ice protection • Autonomy • Battery improvement • Airport infrastructure • Electric motor development
Operations & Human Factors	<ul style="list-style-type: none"> • Type certification • Commercial demonstration • Operational development • Safety analysis • Data analysis
Airport Design, Public Acceptance, & Policy	<ul style="list-style-type: none"> • Airport planning and infrastructure • Value proposition
Workforce Development	<ul style="list-style-type: none"> • Operator and maintainer training and evaluation

21st Century Aviation Research

Figure 4 describes research opportunities for 21st Century aviation. Such a technology dependent discipline in the modern era can be characterized as data driven, technology enabled, and human supported. The Department of Aviation can effectively contribute to all of the areas outlined in Figure 4.

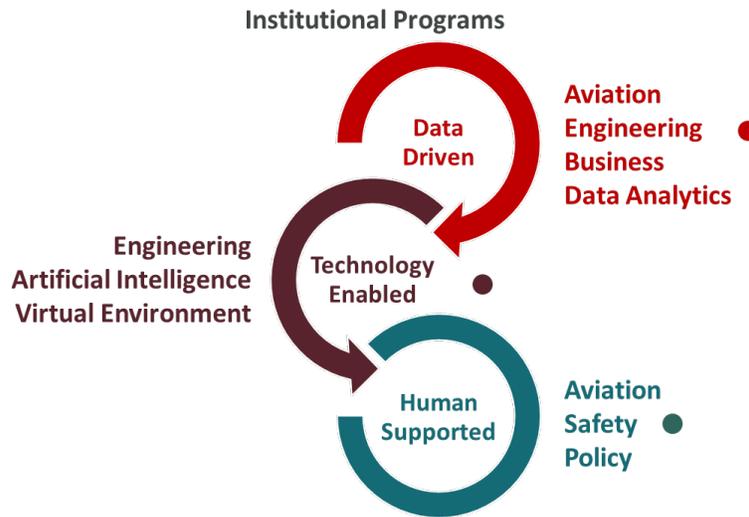


Figure 4: 21st Century Aviation Research Model

Desired Aviation Research Competencies.

The following is a list of desired faculty competencies in the Department of Aviation. Faculty with some of these competencies are already in or affiliated with the Center for Aviation Studies. These competencies fall into three categories.

Category 1: Areas with strong funded research potential

- Technology: Data analytics, artificial intelligence, and prescriptive maintenance.
- Aviation education, policy, and safety
- Advanced air mobility
- Airport operations

Category 2: Areas with strong publishing, partnership, and consortium potential

- Aviation business operations
- Airline industry analysis
- International aviation
- Accessibility to aviation

Category 3: Areas traditionally leading to certification with potential for some applied research (data analysis) and industry partnerships

- Professional pilot
- Aircraft dispatch
- Airspace design, air traffic management and control (ATC)
- Drone operations and application

Research Workforce

In the absence of an aviation graduate program, we project the primary workforce to be graduate students in other departments that intersect the areas outlined above. New tenure-track faculty will have start-up packages that can fund graduate students from these disciplines. We will seek courtesy or joint appointments for our faculty in partnership with other units where applicable, such that they have adequate workforce to build their research programs. We already have strong relationships with these prospective units.

We anticipate launching an aviation-centric graduate degree within two years of gaining department status. Our current strategy is to build a relevant program that leverages intersecting coursework from nationally ranked programs at the university and tying them to current challenges and future innovations in the aviation industry. We have already conducted market research to determine the validity of this course of action.

Summary

We believe this strategy will allow us to use the combined strength of numerous centers and partnerships to “lift all boats” at Ohio State, in addition to appealing to potential partners at other institutions. We also believe that these faculty competencies will greatly enhance our contributions to the aviation body of knowledge and enhance our reputation as a leading collegiate aviation institution. Finally, we believe that our desired faculty competencies will position the Department of Aviation well to address the projected and unforeseen challenges to 21st Century Aviation for the next 25 years (2025-2050).

APPENDIX C: PREPARATION OF GOVERNANCE DOCUMENTS

A draft APT document has been drafted with initial review by the Associate Dean for Faculty Affairs. We anticipate drafting the initial POA during AY 25-26, while awaiting and implementing guidance from the Office of Academic Affairs and the College of Engineering for maintaining compliance with the Advancing Ohio Higher Education Act (Senate Bill 1).

Sean Menke
Ohio State Aviation Alumnus '92
BS Aviation Management & BS Economics

November 5, 2025

Dean Ayanna Howard
College of Engineering
The Ohio State University
Columbus, OH 43210

Dear Dean Howard,

Thank you for the warm welcome during my recent visit to Ohio State. Speaking at Aviation Industry Night, meeting with you, and engaging with students in the program was a powerful reminder of the impact Ohio State Aviation has on our industry.

As an alumnus who began my career here—interning at Columbus International Airport and graduating in 1992—my career expanded to the C-suite at Air Canada and Hawaiian Airlines, and President and CEO at Frontier, Pinnacle and Sabre. I am writing to express my enthusiastic support for establishing the Department of Aviation and to commend both you and Blake Stringer for your visionary leadership in advancing the prominence of Ohio State Aviation.

Ohio State is uniquely positioned to address the most pressing challenges facing 21st-century aviation—from sustainability and workforce development to air mobility and digital transformation. The university's interdisciplinary strengths in engineering, business, data science, and public policy provide a powerful foundation to shape the future of flight.

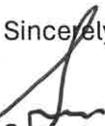
During my visit, I met several students in the program. I was deeply impressed by their professionalism, curiosity, and commitment to the field. Their passion and eagerness to engage with industry leaders reaffirmed my belief that Ohio State is cultivating the next generation of innovators and leaders in aerospace.

Ohio State's legacy in aviation is both deep and distinguished. Elevating the Center for Aviation Studies into a full department will reflect the strategic importance of aviation within the university and attract the talent, resources, and partnerships needed to lead nationally and globally.

I am particularly encouraged by the efforts to expand industry engagement, modernize curriculum, and foster innovation in areas such as autonomous systems, sustainable propulsion, and integrated airspace management. These initiatives align with the evolving needs of the aviation ecosystem and demonstrate the leadership that will define the next century of flight.

Please know that I stand ready to support this endeavor. Ohio State Aviation shaped my career, and I am confident that with your guidance and Blake's leadership, it will continue to shape the future of our industry.

Sincerely,



Sean