

UCC Program Review Committee Summary of Review

Home Department: Aviation

Date of last review: AY 2020-21 (Dec, 2020)

Date of this review: AY 2023-34 (Feb, 2024)

This is a follow-up review and provides updates on the areas of concerns from the previous review in December 2020. The following programs were included in this review:

- B.S. in Aviation Flight
- B.S. in Aviation Management
- Associate in Applied Science in Aviation Technology

Recommendation:

This program is found to be viable but in need of additional resources from the University to execute its educational mission and fulfill its potential as one of Ohio University's most distinctive programs fully and capably. The Department Chair and Dean provided plans and strategies to address the concerns.

See report for commendations, concerns, and recommendations.

The report was forwarded to the program director and college dean. Their responses are attached.

Department of Aviation

Reviewer: David M. Brown, Ph.D., Associate Professor of Instruction, College of Business, Ohio University

This report is an update related to the department's previous review conducted in December 2020. Among the review team's findings was a request for a follow-up in AY 2023-24 to reassess the concerns raised in their report. As this is not a full program review, this report covers only those issues raised in 2020 and the department's efforts to address them in the years since.

The 2020 report raised five primary areas of concern: department leadership, the recruitment of diverse faculty, the lack of a private space for briefings and debriefings, management of the flight training process, and the standardization of the institution's fleet of aircraft. A summary of the department's corrective actions in response to these concerns was provided in a letter dated September 15, 2023. A follow-up, in-person site visit was conducted on February 1, 2024. What follows is an evaluation of each of the areas of concern, incorporating both the department's written response and insights shared by key stakeholders interviewed during the site visit.

Reevaluation of the areas of concern cited in 2020 report

a. Leadership

The interim status of department leadership noted in the 2020 report has been rectified. That report noted that, "Numerous stakeholders mentioned the need for a permanent chair who understands the nuances of the aviation industry." That permanent chair, Deak Arch, was appointed in September 2021. Conversations with multiple stakeholders (administrators, faculty, staff, students) during the February 2024 site visit affirmed a collective belief in both the character and competence of Mr. Arch, whose improvements to the department have contributed to an uptick in morale and confidence in leadership during his tenure. His efforts merit specific mention here, as several individuals cited Mr. Arch as a force for positive change in the department and commended his flexibility, commitment to consensus building, and willingness to listen to and incorporate feedback from those around him.

The safety issues noted in the 2020 report have also received new attention under Mr. Arch. Process improvements have introduced additional checks and balances aimed at ensuring safe operations. These efforts could be amplified by the presence of a designated safety manager (see personnel recommendations on page 3).

b. Recruitment of Women and Under-Represented Faculty

While no women or individuals of color have been hired into faculty roles in the years since the last report, that circumstance is attributable to a lack of resources and limits on the available pool of talent rather than a deficiency on the part of the department. The 2020 report noted that "The current level of faculty is categorically insufficient" and suggested immediate

efforts to remedy that deficiency. Unfortunately, that situation persists, and it bears repeating: this program is critically understaffed from a faculty standpoint.

c. Private Briefing/Debriefing Space

The department has been creative and adaptable in finding solutions to provide space for necessary activities such as briefings and debriefings. However, the availability of these spaces too often relies on the goodwill of individuals willing to forego working in a particular area so that it can be utilized for these purposes. While the situation is workable for the time being, it is not ideal. This is addressed in greater detail on page 4 in the recommendations pertaining to space planning.

d. Structured Management of the Flight Training Process

The procedural issues noted in the 2020 report that were negatively affecting students' experiences in the program have been proactively addressed under Mr. Arch. The department's memo dated 9/15/23 calls attention to ongoing hiring challenges for flight instructors, given the strong job market in aviation, but notes that the program currently employs its highest number of flight instructors to date. The progress of individual students through the program has benefitted from increased scrutiny of students' progression and proactive handling of issues once they are discovered.

Supply chain issues continue to affect the availability of parts for fleet maintenance, though this phenomenon is industry-wide and beyond the program's control.

Several parties noted the benefits of the impending transition from the department's outdated scheduling software (Skyscheduler) to a more modern software (Talon) that will reduce or eliminate many of the procedural inefficiencies that have hampered previous efforts to maximize the efficient use of planes and training personnel. It will also introduce additional capabilities for data generation to facilitate analysis of current and future operations.

e. Fleet Standardization

The department has made progress in addressing the review committee's concerns about the state and nature of the fleet of aircraft with which the program is working. Since 2020, three additional aircraft (Cessna 172 models) have been purchased. The current mix of aircraft have been apportioned such that students remain with a particular type of aircraft for the duration of their flight course. The University, College, and Department of Aviation are working through the process of purchasing an updated fleet of single-engine aircraft that will add stability and uniformity to fleet operations and better ensure students' consistent experiences across the program.

Findings and Recommendations

This report reaffirms the 2020 report's findings: the program is viable but is in need of additional resources from the University to fully and capably execute its educational mission and fulfill its potential as one of Ohio University's most distinctive programs. Recommendations for specific areas of need are as follows:

Articulation of Vision

The Russ College of Engineering and Technology is encouraged to develop and articulate to its stakeholders a clear vision for existing aviation-related assets. The Aviation program as an academic entity represents a true growth opportunity for the College and for Ohio University. Circumstances in the aviation industry have shifted markedly since the last program review was completed in 2020. Turnover in the workforce has made this a uniquely attractive major and institutions that capitalize on the robust and growing interest of applicants for this major will reap significant benefits. The Aviation program is in a position that is becoming increasingly rare: they are turning away qualified students who would otherwise enroll in the program. The capacity and personnel constraints necessitating this could, with appropriate resources, be rectified. In an era where shrinking student enrollments have introduced new hardships into higher education, the University has a significant opportunity with this program to tap into a pool of willing applicants.

By both qualitative and quantitative measures, the costs associated with an aviation degree from OU are lower than those of peer institutions—a powerful factor in the minds of cost-conscious students. Opportunities exist for the University to better leverage marketing to highlight ongoing success stories in the program and to increase the visibility of the program for potential applicants (as detailed on the following page). Yet any efforts aimed at increasing the pool of applicants would be counterproductive in the absence of additional investment in personnel, equipment, and infrastructure. Enrollment growth would need to occur in lockstep with an expansion of resources.

Beyond the direct benefits to the institution, it is also worth noting that there is significant untapped potential to use the Aviation program and the Ohio University airport as vehicles for economic development for the Southeast Ohio region. This is another area where the College of Engineering has an opportunity to build a compelling vision for these assets by developing a plan to better support the program in its current form while also charting a growth trajectory for the years ahead. That plan should include specific milestones and metrics for evaluating success and a strategy for ensuring that the number and nature of personnel in the department keep pace with actual growth. As evolving technologies, such as drones, present new markets and areas of study, the College should position itself to leverage the expertise of its faculty and its connections to industry to capitalize on Aviation's status as one of its most unique and desirable programs.

Personnel

Estimates varied on the number of faculty members that would need to be hired to appropriately staff the program (ranging from one to four), but a common point of agreement was that the current state of affairs—having a single faculty member in the department—is untenable. The lack of faculty is actively working against the institution's interests; existing personnel in the department are stretched too thin and are asked to do more with resources that are not equal to the task at hand.

It should be noted that the University's existing approach to faculty hiring is unlikely to yield success in recruiting additional personnel to teach in this program. Industry salaries have risen drastically in recent years, making the compensation structure of academia significantly less competitive by comparison. Staffing this program with qualified faculty members will necessitate salary offers well beyond the norms of other disciplines and, at a minimum, comparable with those of aviation programs at peer institutions. Immediate and concerted efforts to staff up this program should be a priority. This strategic investment in personnel, while representing a significant cost, would facilitate a level of enrollment growth that could net an appreciable return on investment to the institution.

With respect to ongoing personnel moves, University Human Resources was identified as a pinch point in the process of transitioning student instructors into staff instructors, with personnel actions taking an inordinate amount of time to make their way through the system.

The 2020 report noted this program's high level of risk exposure and what that means for the University. Any plan for growing the personnel in the program should include hiring a safety manager—or, at a minimum, an individual who fulfills that role as a dedicated portion of their assigned duties (perhaps a faculty member doing it as a course release). This position is common at peer institutions and would promote the safety of staff and students as well as help safeguard the University's interests.

Space Planning

While the program is handling ongoing space challenges admirably, consideration of how dedicated briefing/debriefing spaces can be created would ideally come in the context of a more holistic space planning study that also addresses other issues department personnel raised, such as constraints on records storage and the need for additional restrooms. Whether through the reimagining of existing spaces or the creation of new ones, the department will need room to grow.

The location of the airport presents a challenge for students, particularly those who are not permitted to have cars on campus. The existing solution of ferrying students to and from Athens via the department's passenger van is unwieldy and, as with other issues in the department, relies on the goodwill of department personnel to function. The logistics for this—and any attendant costs—could be more appropriately handled at the College or University level.

Marketing, Industry & Alumni Outreach, and Support for Students

The students in this program speak of it in glowing terms, noting in particular the dedication of the staff and the camaraderie that they enjoy with their peers. Yet there also seems to be a sense among students—and some personnel—that they are largely “out of sight, out of mind” given their location away from the main campus. Two related initiatives could help to remedy this: better messaging to promote the department's activities to internal and external stakeholders and increased support for student organizations. Increasing the department's exposure inside the University sphere could help to highlight potential areas of common interest across disciplines and better attract high potential internal transfer students, while outreach to audiences beyond the institution could better position the program for collaborative efforts with public and private entities.

One area in which this outreach could be especially significant is with program alumni. Department personnel report that industry professionals routinely laud the quality of OU graduates. A more deliberate and concerted effort to parlay that positive reputation into a vehicle for recruitment and alumni donations should be considered. The department's ongoing efforts at industry collaboration would benefit from additional support.

Student organizations add a positive dimension to many students' time on campus. Some students in the Aviation program reported not understanding or being aware of their options for student organizations until later in their courses of study, and some personnel expressed a desire to better support the efforts of such organizations with institutional resources. These

organizations have the potential to serve as enrichment opportunities for students while showcasing both their talents and one of Ohio University's most unique programs. As mentioned above in the Personnel recommendations, strategic investment in these efforts could pay for themselves many times over in a program that is poised for growth, should it be given the means to flourish.



OHIO UNIVERSITY

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February 19, 2024

Dr. Yang,

I appreciate the thoroughness of the examination performed by Dr. Brown regarding the follow-up to the seven-year review conducted in December of 2020. Dr. Brown's insightful review of the program identifies areas of strengths as well as areas that need to be further developed in the program. I am pleased to have the opportunity to respond to the points identified in the report.

Articulation of Vision

The Department has concentrated its efforts into the internal support structure for the students enrolled in the program. As this has been the ongoing focus, external articulation of vision, beyond that of industry, has been lacking. Student and Departmental achievements have been celebrated internally with minimal emphasis placed on wide reaching external announcements. Going forward, the Department's Website will need to be reworked so that announcements and accomplishments can be better distributed to entities outside of the Department. This effort will mirror the practices of other peer institutions that have aviation programs. Additionally, the Department has been slow to incorporate the support of the alumni. For many years, alumni of the program were not actively engaged, and external support floundered. This situation is being rectified by strengthening efforts to reengage with the alumni. Keeping alumni apprised of current events will promote the achievements of the program and allow for further support within the industry as well as expanding the reputation of the Department.

Personnel

It has been challenging for the Department to recruit and fill vacant faculty positions. As noted by Dr. Brown, the Department is in direct competition with the aviation industry in recruiting qualified faculty candidates. The Federal Aviation Regulations (FARs) require instructors to have the appropriate Federal Aviation Administration (FAA) issued certificates and faculty within the Department must also hold a master's degree in aviation. All past and present faculty members within the Department have held advanced pilot certificates. As the industry is offering unprecedented compensation packages for qualified pilots, it will be increasingly difficult to recruit qualified candidates to fill faculty vacancies in the Department.

The recommendation regarding incorporating a safety manager to oversee an established safety program is a notable suggestion. Currently, the oversight of safety protocols resides under the stewardship of the Department Chair and the FAA Designated Chief Instructor of the flight program.

Designating these duties to a single individual would provide a single contact within the Department that would be responsible for directly promoting and managing safety. Having a safety manager on staff would also allow the program to pursue a Safety Management System (SMS) and foster continued development of safety related protocols by aligning the SMS with peer institutions, all while sharing safety data to further promote the identification and mitigation of safety risks. These responsibilities could be incorporated into the additional duties of a future faculty member or of an additional staff member, should additional openings become available within the Department. It should be noted that duties related to safety management are specialized within the aviation industry and collegiate aviation training environments. Individuals filling these positions must have a background in aviation safety to be a successful safety program manager.

Space Planning

Physical space at the airport will remain an important consideration going forward. The Russ College of Engineering and Technology has worked with the Avionics Engineering Center to allow the Department of Aviation to expand the training facilities located at the airport. The Russ College remains committed to assisting the Department in finding solutions to physical space requirements when the need arises.

Marketing, Industry & Alumni Outreach, and Support for Students

Several items related to marketing and promotion of the program were discussed earlier in this response. However, the “out of sight, out of mind” perception is a falsehood that was promoted by the previous administration in the Department. The Russ College continues to promote the success of the Department, faculty, staff, and students. In the last few years, the College has made a concentrated effort to foster the inclusion of aviation students in college wide events. Additionally, the Russ College openly supports the Department and is continually working to improve the aviation program for the students.

The Department remains committed to supporting student organizations. The Department has promoted student organizations by providing links to the student organizations on the Department’s Webpage, utilized social media to provide updates on student organized events, and has allowed student organizations to introduce themselves during the semester meetings for the flight majors. However, one method of communication that has not been fully utilized is using email to promote student organizations. The Department will start a collaborated effort to send out notifications, including email, about student organized events to students enrolled in the program.

The Department values the recommendations provided by Dr. Brown and the determination of the Program Committee to call for continuous improvement of programs residing at Ohio University. The Department of Aviation is committed to providing the best academic experience and appreciates the continued support of the university to meet this objective.

Respectfully,

Deak Arch
Chair, Department of Aviation



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Russ College of Engineering
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April 1, 2024

Ohio University
University Curriculum Committee

Re: Dean's Response to Aviation Program Review

Dear Members of the University Curriculum Committee,

I sincerely thank Dr. Brown for conducting a thorough re-review of the Aviation (AVN) program in the Russ College of Engineering and Technology during this academic year and submitting his report dated February 14, 2024. The report provides an update to the previous AVN review conducted in December 2020 and is not a full program review. Rather, the report addresses only those issues raised in 2020 and the department's subsequent efforts to address these issues.

The 2020 report identified five areas of concern: department leadership, the recruitment of diverse faculty, lack of private space for briefings and debriefings, management of the flight training process, and standardization of the institution's fleet of aircraft. The AVN Department Chair, Deak Arch, has provided a response to the February 14, 2024, report. I am pleased to have this opportunity also to provide my views on the AVN program as part of the review process.

a. Leadership

Dr. Brown notes that, with the appointment of Mr. Arch in September 2021, the interim status of department leadership noted in the 2020 report has been rectified. I am pleased to read that there has been improvement in morale, confidence, and attention to safety issues as a result of his leadership. Mr. Arch has my full support in his role as Department Chair and we hold regular meetings on the status of the AVN program.

b. Recruitment of Women and Under-Represented Faculty

I concur that the lack of recruitment of under-represented faculty to the AVN program is not a fault of the department, and also agree that the AVN program is critically understaffed from a faculty standpoint.

c. Private Briefing/Debriefing Space

In Fall 2023, the AVN department was given significant additional space in the McFarland Building at the airport to support their operations, including 5 rooms for flight simulators, offices, and private meeting space.

d. Structured Management of the Flight Training Process

I am pleased to read that Mr. Arch has proactively addressed the procedural issues associated with flight training, including the transition to Talon software, and that the program has its highest number of flight instructors to date.

e. Fleet Standardization

I am pleased to read that the program has made progress with regard to its fleet of aircraft, including adding three Cessna 172 airplanes since 2020. I can also report that, in the last 9 months, I have worked with Mr. Arch to formulate a plan for the fleet that includes a tiered approach to flight instruction. Students entering the program will begin with the more basic teaching aircraft, such as the Cessna 172 airplanes, and then advance to more modern Cirrus SR20 airplanes later in the program, including training for the commercial flight certificate. This approach offers advantages in recruitment, retention, and cost over the previous plan of having a uniform fleet of aircraft, such as all Cessna or all Cirrus airplanes. To implement this plan, we have recently ordered six new Cirrus SR20 airplanes for the fleet.

With regard to the Findings and Recommendations of Dr. Brown's report, I am pleased to read that the program is considered viable and I agree that the program is in need of additional resources. I also can provide feedback on the recommendations in this section of the report.

Articulation of Vision

The AVN department and degree program represent a core strength of the Russ College of Engineering and Technology and a true growth opportunity for the university. As such, Mr. Arch and I have had many discussions on how to support and strengthen the program. For example, the concept of tiered flight instruction and a matching hybrid fleet of airplanes resulted from those discussions. The six new Cirrus SR20 airplanes will yield an additional enrollment capacity of about 85 students in the AVN program. I have also requested the hire of a new AVN faculty member to accommodate the expected higher enrollment. We are in the process of raising the flight fees for the program, which are lower than many of our peer programs in the state, to provide more income for program growth. I have begun discussions with Mr. Arch on the possibility of creating a master's degree program in AVN, focusing on administration and management. A new flight simulator was purchased in Fall 2023. Finally, President Gonzalez and I are interested to leverage the potential of the Ohio University Airport to increase economic development for southeast Ohio and have had discussions along those lines.

Personnel

I agree that immediate and concerted efforts to increase staff for the AVN program should be a priority. I have requested additional faculty for the AVN program to support the expected future growth of enrollment and degree options. I am also working with Mr. Arch to upgrade some instructor positions to faculty positions to improve the retention of qualified instructors in the program. Mr. Arch and I will discuss the need for a safety manager for the program.

Space Planning

Space allocated to the AVN program has improved substantially in the last 6 months and we will continue to look for opportunities for additional improvements. Although we cannot, unfortunately, reduce the distance between main campus and the airport, we will keep attention on the current shuttle system for ferrying students back and forth.

Marketing, Industry & Alumni Outreach, and Support for Students

I can assure the university that the success of AVN program is a top priority of the Russ College of Engineering and Technology. The suggestion to strengthen messaging to better promote the department's activities to internal and external stakeholders is well taken. Currently, the university communications program is in a process of reorganization and I no longer have a communications specialist within the college. Regardless, we are arranging for more alumni activities, such as the Joan E. Mace Memorial Aviation Alumni Reunion that will be held at the airport on April 19 and 20, 2024. I will work with Mr. Arch to increase promotion of the program and its student organizations going forward.

Sincerely,



Patrick J. Fox, Ph.D., P.E., BC.GE, F.ASCE
Dean, Russ College of Engineering and Technology
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