

KSU AIRPORT AND AEROSPACE TECHNOLOGY  
TASK FORCE REPORT

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# KSU AIRPORT AND AEROSPACE TECHNOLOGY TASK FORCE REPORT

## Executive Summary

Over the past seven months, the KSU Airport and Aerospace Technology Task Force has convened on a regular and continuous basis to obtain background by evaluating existing documents and interviewing relevant constituencies, and to formulate recommendations to facilitate the phased-in growth of the Flight Training program. The Task Force has concluded that the Flight Training program, in its symbiotic relationship with the KSU Airport, has the potential to grow as an asset to the University. Past proposals to the University have been carefully examined by the Task Force, and while each proposal presents significant elements of merit, the Task Force is convinced that these elements either lack cost effectiveness or fail to outweigh the positive components already in place at Kent State University. The following report will detail recommendations that (1) affirm the use of the KSU Airport as the major laboratory setting for Flight Training; (2) realign the configuration of the Aerospace Technology/Flight Training faculty to better meet the needs of the students and the mission of the School of Technology; (3) control, but facilitate, the growth of the enrollment in Flight Training, thereby increasing the cost efficiency of the academic program and KSU Airport; (4) provide for the replacement/refurbishment of the aircraft fleet; (5) increase KSU Airport revenue; (6) substantially improve the physical facilities in which Flight Training and Airport operations activities take place; and (7) effectively market and promote the value of the academic and service components of KSU Flight Training and the Airport to potential students, consumers, and community members.

## Background

### Task Force and Expectations/Responsibilities

Task Force Membership. On July 8, 1994, the following individuals were appointed by President Carol A. Cartwright to the KSU Airport and Aerospace Technology Task Force: Jack Armul, Director of Financial Affairs; Tom Grossman, Coordinator of Flight Operations; Diane Johnson, Director of Business Services (Vice Chair); David Mohan, Associate Professor, School of Technology; Gary Neiman, Associate Dean, College of Fine and Professional Arts (Chair). Zachary Brandon, Chair, Undergraduate Student Senate was later appointed to augment the Task Force. On September 19, 1994, Dr. Mohan found it necessary to resign from the Task Force. Dr. Mohan was replaced with Mr. John Duncan, Assistant Professor from the School of Technology.

Expectations. The overall purpose of the Task Force was to recommend a plan that will maximize the academic expertise, the resources, and the opportunities available to the University to serve students and the general public. President Cartwright specifically defined the task as determining "...the feasibility of plans for phased-in growth for the Flight program, to evaluate possible partnerships within the region, and to assess the resources

required to support any recommended expansion." Further, the Task Force's ". . . comprehensive planning to meet the goals outlined above (was to) include:

1. Descriptions of the elements of phased growth and related conditions required for such growth.
2. Recommend(ed) standards for future review, for example, appropriate enrollment levels, various student populations to be included, expected financial results at benchmark years such as three to five years in the future.
3. A review and analysis of a proposal dated December 7, 1993 to determine if there are elements of the proposal, especially related to regional cooperation, to incorporate in your recommendations."

Schedule of Meetings. Following the written charge by President Cartwright, the Task Force met with Provost Henry and Vice President Kelley on July 26, 1994. At this time the Provost and Vice President amplified the charge to the task force. Including that meeting, the Task Force has held 24 meetings, each 2 to 5 hours in length. In addition, various members of the Task Force have met individually with selected constituencies and have toured various facilities, including the KSU Airport, Akron Fulton Airport, and Portage County Airport.

Constituencies Interviewed. The following constituencies have been interviewed by the Task Force:

- August 31, 1994: 1) Flight Training Staff (Flight Instructors and Educational Specialist);
- 2) ASAP (Association for Sensible Airport Policies), a Stow/Munroe Falls community group
- September 16, 1994: Flight Training students
- October 5, 1994: Eugene Ripple, former Coordinator of Flight Training, Airport manager, author of "Combined KSU/AU/City of Akron Aviation Proposal" (12/7/93).
- October 7, 1994: 1) Howard Flood, President, First National Bank of Akron;
- 2) Flight Training staff (Flight Instructors and Educational Specialists).



- October 14, 1994: 1) Donald Coughlin, Mayor of Stow;  
2) Kenneth Baker, proprietor, Baker Aircraft Technologies  
(located at KSU Airport);  
3) Al Beckwith, proprietor, Commercial Aviation Corporation  
(located at KSU Airport).
- October 21, 1994: KSU Airport staff.
- November 4, 1994: 1) Return interview with Al Beckwith and Kenneth Baker;  
2) School of Technology faculty.

Site Visits. Members of the Task Force participated in the following site visits:

- October 12, 1994: Tour of KSU Airport (Grossman and Neiman).  
Tour of Airspect facility at Akron Fulton Airport (Neiman, Johnson, Armul).
- November 2, 1994: Tour of Portage County Airport (Grossman, Neiman, Johnson).
- November 16, 1994: Tour of Akron Storage Facility at Akron Fulton Airport (Armul, Grossman, Johnson).

### KSU Airport

History. The Kent State University Airport (hereafter referred to as "Airport" or "KSU Airport") was founded in 1917. It is reported to be the oldest airport in continuous operation in Ohio, opening to the public in 1920 as Stow Aviation Field. A small hangar was built in the 1930's and is still in operation today as the Maintenance Hangar. Kent State University purchased the Airport from Rudy VanDevere in 1943. The Administration and Operations building was constructed in 1945, and a private pilot program began in 1947. In 1965, the North/South runway was paved, and the present 14-unit T-hangar for aircraft storage was constructed. At that time, additional T-hangars were planned, but have not been built.

Services. The Airport supports the Flight Training program offered through the School of Technology. While the Airport is used by and open to the public, its primary mission is to provide a safe, efficient training environment for the University's students.

The Airport is open 363 days per year. Personnel operate the Airport approximately 12 hours per day (dawn to dusk), 7 days per week. The Airport provides the following services or products to both Flight Training and the general public: fueling (100 octane and turbine fuel); lubricants; pilot supplies (maps, charts, flight computers); hangar facilities; tie-downs; Visual Approach Slope Indicator (VASI) landing system; 4,000-foot paved runway; aviation-band radio communications; safety and weather advisories; and public lobby. Additional available services include aircraft washing, de-icing, tire service, jump-starting, engine pre-heating, and various safety services.

Currently, there are two Fixed Base Operators (FBOs) at the Airport. Baker Aircraft Technology provides major aircraft maintenance to the public and the University. Commercial Aviation Corporation provides flight training, aircraft rentals, and other services to the general public.

The Airport is responsible for aircraft ground movements, snow removal, grass mowing, and grounds keeping. Routine inspections are conducted to ensure the safety of facilities, navigational lighting and landing aids, runway, and fueling operations.

The Federal Aviation Administration (FAA) Examination Center provides approved computerized testing to the Flight Training program and the general public for aviation certification, including Private Pilot, Commercial Pilot, Instrument, Multi-Engine, Radio Operator, and Certified Flight Instructor. Additionally, all Flight Training phase quiz testing is administered by the FAA Examination Center.

The Airport is expected to be a self-supporting operation which generates its revenues from the rental of storage space, and the sale of fuel, lubricants, and pilot supplies. This auxiliary currently relies on Flight Training operations to provide approximately 50% of its total revenues. The Airport does not receive any state or federal monies to subsidize its operational budget.

The FAA has designated the KSU Airport as part of its National Airport Plan (NAP). The Ohio Department of Transportation (ODOT) and the FAA have awarded approximately \$4 million in capital improvement grants to upgrade or replace airport facilities. One of the stipulations for receiving these grants was the assurance that the airport would be operational for at least 20 years after the last grant was received in 1990. Kent State University, as the grantee, remains responsible for the operation, maintenance, and safety of the facility throughout this term.

The Airport serves as home base for approximately 30 privately-owned aircraft. Currently, the airport handles approximately 72,500 takeoffs/landings per year. In the past, the total has been as high as 121,000. The decline in activity can be attributed to the reduction of the Flight Training Program and the decrease in general public activity due to overcrowded facilities, the latter pre-dating the 1989 reduction (as discussed on pages 6-7).

The KSU Airport is an asset and a resource to the surrounding communities in a variety of ways. Tours of the Airport are popular with school, church, and civic groups. The main hangar houses the Shriners' aircraft, which is used to transport burn victims to hospitals across the nation. Clients doing business with local companies enjoy the convenience of the Airport's strategic location. The Airport also has a positive financial impact on the community. Summit County received approximately \$60,000 in taxes and assessments on the Airport over the past ten years. Total earnings through employment at the Airport last year resulted in excess of \$8,000 in income tax revenues for the City of Stow.

Safety/Environmental Issues. The safety record of the airport is exemplary. There has been only one serious accident in the 75-year history of the Airport, that accident occurring in 1966 involving a non-KSU aircraft. In order to comply with Environmental Protection Agency (EPA) regulations, two 27-year-old gasoline tanks were drained and removed in 1992. All costs connected with the removal of old tanks and replacement with a new tank were funded from the Airport's operational budget, not from state subsidies. The new fuel tank contains turbine fuel, to accommodate the small turbine-powered aircraft which currently use the Airport. This traffic accounts for 4 or 5 flights per week. Studies have shown that noise from the type of turbine-fueled aircraft that land at the airport is no greater than from similar gasoline-powered planes.

In an attempt to proactively address safety concerns of area residents, the landing pattern altitude over the Airport was increased in 1989 from 600 feet AGL (Above Ground Level) to 884 feet AGL. The Visual Approach Slope Indicator (VASI) system and two instrument approach navigational signals provide pilots with landing approach tools for both VFR (Visual Flight Regulations) and IFR (Instrument Flight Regulations) conditions. For VFR operations at the Airport, the FAA requires 1,000 feet visibility above the Airport, and 3 miles for approach and takeoff. KSU Flight Training, in its use of the KSU Airport, exceeds FAA minimum visibility and cloud height requirements.

#### KSU Flight Training and Aerospace Technology

History. The origin of flight education at Kent State University can be traced to Fall, 1965. A Bachelor of Science degree program in Aerospace Technology was instituted in 1967. Since the inception of Flight Training at Kent State University, flight course enrollment grew steadily until Fall 1989. During that semester, the Admissions Office, on direction of the Provost, suspended admissions to the Aerospace Flight program pending a review. During this time, it was announced that the flight program/degree was being abandoned and that all courses would be phased out over the period of a few years. However, during May 1990, the Provost announced the reopening of admissions to the flight program with conditional requirements. These conditions were to limit enrollment of flight courses to majors in Aerospace Flight Technology and to establish standards to control the size of the flight program. Admission standards, degree progression standards, and course prerequisites were established the following semester to limit the size of the flight program.



Enrollment in flight courses and utilization of aircraft (flight hours) has progressively dropped by significant levels from 1989 to present. In 1989, 17,645 flight hours were flown, and 408 students were enrolled in flight courses. During 1994-95, it is estimated that 7,500 flight hours will be flown and flight course enrollment is estimated to be approximately 190 students.

From its inception and through the 1970's, the Airport and Flight Training budgets were assigned to the Vice President for Business Affairs. During that decade, management of the Airport and coordination of Flight Training were also combined and administered by a single staff person. In the 1980's, both the budgetary responsibility and administrative duties of the Airport and Flight Training were realigned. Since that realignment, the Airport budget (and management) has been maintained by the Vice President for Business Affairs, while the Flight Training budget and academic program has been assigned to the Vice President For Academic and Student Affairs.-

Prior to FY 1993, the Flight Training budget was classified as an auxiliary budget. Under this arrangement, departmental income was expected to offset expenses, with the majority of income consisting of special course fees (flight fees). During the late 1980's and early 1990's, flight fees were increased at a very aggressive rate. Between 1988 and 1992, required flight fees increased a total of 67%. The reasons for such an aggressive change was an attempt to offset increases in personnel expenses in prior years and to start building a fund balance for equipment replacements. During this time, KSU's flight fees in comparison to other university flight fees climbed from approximately the 50th percentile to approximately the upper quartile (see Appendix A).

After the change to an academic budget, flight fees were not increased for two years (FY93 and FY94) and were only increased 3.5% in FY95. This leveling off of increases was to keep flight fees at a competitive level. A seven-year history of annual percent increase in flight fees is presented below.

Annual percent increase in total flight fees required for degree.

FY89	FY90	FY91	FY92	FY93	FY94	FY95
14.60%	15.06%	8.00%	17.28%	0.00%	0.00%	3.53%

In FY93, the Flight Training budget was reclassified as an academic budget with an allocated fund balance account. However, the program continues to have fiscal responsibilities identical to other auxiliary entities on the Kent Campus. These include the expectation that flight fees meet all expenses necessary to conduct flight training, including salaries of contracted academic instructors, cost of facilities operations and maintenance, insurance requirements, etc. As a result of the drop in enrollment referenced above, the budgets for both Flight Training and the Airport operated in a deficit in FY93. The Flight Training budget continues to operate in a deficit, in large part due to low enrollment not offsetting fixed expenses.



During the last 10 years, the School of Technology, in general, and the Aerospace Technology Division, in particular, has been negatively affected by faculty reductions through retirements, resignations, and budget reductions. Because enrollment in the Aerospace Technology program was rapidly growing, concurrent with declines in faculty resources, the School of Technology found it convenient and expedient to fill required faculty lines by using non-tenure track Education Specialist positions. These positions were originally intended to be temporary, with little or no classroom instruction responsibility, until regular full-time faculty positions could be filled. As the number of tenure-track faculty decreased, the School was forced into expanding the responsibilities of the Education Specialist positions beyond flight laboratory instruction to include classroom instruction, student advising, and other academic duties.

Since 1980, the Aerospace faculty has experienced a large turnover, with losses through 6 tenure track retirements, 4 tenure track resignations, and 14 Instructor/Education Specialist resignations. As a result of these circumstances the Aerospace faculty has evolved during this period from one with several E & G funded tenured/tenure track faculty positions (six tenure track and four Education Specialists in 1985) to the current faculty which consists of a single tenure track faculty member, one term instructor, and five Educational Specialist positions. Also, because of the planned temporary nature of the Education Specialist positions and a lack of available faculty lines, it was decided to fund these positions solely through special course fees associated with flight laboratory courses. Currently, Aerospace Technology is the only academic unit at Kent State University that fully funds most of its faculty (the Education Specialists) strictly through special course fees. While the extensive use of Education Specialists was a timely, convenient, and easily implemented solution to the faculty shortage during this time, it was intended to be only a temporary solution; the long-term effects of continuing this staffing policy has had detrimental effects upon faculty morale and the academic quality of the Aerospace Technology programs.

Current Status. Flight Training is an academic unit of the School of Technology, responsible for instructing required Flight Training courses for students enrolled in the Aerospace Flight Technology degree program. At the current time, revenue is generated from student flight fees. The Flight Training budget is charged for all expenses except the salaries and benefits of the Flight Training coordinator and one clerical support position, which are charged to the School of Technology. Over the past several years, a freeze on faculty line positions in the School of Technology has occurred, creating significant staff shortages, some of which are currently being met by the five Flight Training Instructors (Educational Specialists), who spend 35% of their time supporting the instructional needs of the School of Technology Aerospace Technology area. The Flight Training instructors' salaries and benefits are charged entirely to the Flight Training budget.

The Flight Training staff provides course instruction, check rides, academic advising, phase quizzes, review of flight records, pre-solo evaluation rides, and dispatch functions (including scheduling, training, and monitoring of daily activities). They coordinate aircraft maintenance, promote and enforce safety programs, and recruit prospective students. Also,

the department is able to provide aircraft pilots for University air travel. Additionally, the staff participates in Parents' Day, Homecoming, High School Career Fairs, Flight Club, Flight Team, and New Student Orientation. The qualifications of the staff and the level of the programs offered meet or exceed the mandated requirements of Part 141 of the FAA Regulations for Flight School Instruction.

#### Description of Current Resources

KSU Airport Facilities. The Kent State University Airport is located in Stow, Ohio, County of Summit, consisting of approximately 291 acres. Due to its location, the Kent State University Airport is used as a reliever airport to Akron/Canton Airport. The Airport accommodates small to medium, single- and multi-engine aircraft activities, serving the Portage, Summit, Medina, and Stark counties region. As a result, the FAA has recognized Kent State University Airport as a key facility in its National Airport Plan (NAP), designating several federal and state grants to be used by the University for improvement or expansion of airport facilities.

The Airport terminal was built in 1945 and has approximately 1,500 square feet of operational space. The terminal houses Airport and Flight Training personnel along with students in the Flight program.

The following components constitute the Airport:

1. Airport runway facilities: main 4,000 feet x 60 feet runway with parallel taxiway and compass rose.  
East - West sod runway (1,170 feet x 55 feet) - closed  
South/West sod runway (2,400 feet x 165 feet) - closed
2. Airport fueling system:  
1 - 10,000 gallon AV gas single wall fiberglass underground storage tank  
1 - 10,000 gallon Jet-A double wall fiberglass underground storage tank  
Automated self-fueling terminal system  
Underground Storage Tank Leak Detection System, which includes a fuel inventory system and complies with EPA requirements through 1998 (further governmental standards have not been specified)
3. Airport storage facilities:  
14 aircraft T-hangars (approximately 15,000 sq. feet)  
Large aircraft community hangar (approximately 27,189 sq. feet)  
Ramp tie-down area (approximately 30 sites)  
Fingertip tie-down area (approximately 25 sites)  
Grass tie-down area (approximately 20 sites)



4. Airport aviation aids:

Lighting

- VASI (Visual Approach Slope Indicator landing guiding system)
- MIRL - Medium Intensity Runway Lighting system
- REIL - Runway End Identifier Light system

Weather

- GTE-DUAT - Direct-user access terminal (self-directed weather briefing system)
- FSS - Flight Service Station (Cleveland, dedicated telephone)
- Satellite access to weather channel

Additional components of the Airport include the Airport Fixed Base Operators and the FAA Examination Center. Commercial Aviation Corporation, owned by Al Beckwith, is housed in a temporary mobile unit (approximately 840 sq. feet). Baker Aircraft Technology, owned by Kenneth Baker, is housed in the Airport's maintenance hangar (approximately 5,300 sq. feet). The FAA Examination Center is housed in a temporary mobile unit (approximately 660 sq. feet) and provides testing services to prospective pilots seeking FAA certification.

Flight Training Facilities. The Flight Training facilities are located at the KSU Airport. These facilities (approximately 3,000 sq. ft.) include 20 rooms, of which 6 are offices, for instructional, clerical, and administrative staff functions. While these facilities are admittedly crowded, many functions are accommodated, including small areas for weather, equipment, offices, aircraft dispatcher, lobby, and restrooms. The facility also includes two trailers used for classrooms, instructor cubicles, and aircraft simulators. Equipment includes 24 aircraft as follows:

- 14 Single Engine Cessna 152 (IFR equipped)
  - 4 Single Engine Cessna 172 (IFR equipped)
  - 4 Single Engine Cessna 172-RG\* (IFR equipped)
  - 2 Twin Engine Piper Seminole (IFR equipped)
- \*retractable gear

The aircraft are approximately 10-15 years old, but are maintained according to FAA standards. Understandably, maintenance costs increase as an aircraft ages. The facilities also include three single engine and one twin engine ground trainers (simulators), all of which are somewhat outdated.

Description of Previous Proposals

In an attempt to reverse the enrollment decline in Flight Training and to improve the financial viability of the academic programming in flight and the auxiliary in which it is housed, a number of proposals have been considered over the past two years.



In February, 1993, in response to a request from Dean Thomas Barber (F&PA) and former Associate Vice President Chester Williams (Business Affairs), Thomas Grossman, Flight Operations Coordinator, and Lynn Feterle, former Airport Director, proposed the following:

- increase flight major enrollment through marketing
- open enrollment of flight courses to non-majors
- establish Aerospace Flight Technology minor
- offer flight courses to non-traditional students through College of Continuing Studies
- develop capital building plan and construct additional T-Hangars
- increase promotional efforts for Kent State University Airport.

In Spring, 1993, the above proposal was amplified to provide specific economic projections resulting from increased flight course enrollment. Specific emphasis was placed on the generation of sufficient funds to refurbish and replace the current fleet.

In November, 1993, the "Institute for Aviation Studies" proposal was prepared. This proposal included a consolidation of Aerospace Flight Technology with KSU Airport operations under a new organizational structure which would report to the Provost. Other elements are discussed in the next section.

In December, 1993, a proposal entitled, "Combined KSU/UA/City of Akron Aviation Proposal," was prepared. This proposal was forwarded to the University of Akron's and Kent State University's administrations. It has been determined that this report was authored by a former KSU Airport Director, with contributions from individuals involved in activities at the University of Akron, Akron Fulton Airport, and the Akron business community. It appears that all individuals involved in the preparation of this report are aviators. Essential elements of this proposal included moving Flight Training operations to Akron Fulton airport, collaboration with the University of Akron, and collaboration with the city of Akron. Specific elements are described in the next section.

#### Review of Proposals Considered By Task Force

In order to determine the feasibility of phased-in growth for the flight program, discussion began focused on elements contained in two separate proposals provided to the Task Force. These two proposals are *Combined KSU/UA/City of Akron Aviation Proposal* dated December 7, 1993 and *School of Technology - - Center for Aviation Studies* dated March 21, 1994. The most significant elements of each proposal are as follows:

##### Combined KSU/UA/City of Akron Aviation Proposal

- KSU moves the flight program from the KSU Airport to the present Airspect Air facilities or the Loral Facilities (Akron Storage) at the Akron Fulton Airport.

- The KSU Airport staff begins to take over the operation of the Akron Fulton Airport.
- The City of Akron subsidizes the combined operations at a level of \$300,000 the first year, decreasing by \$50,000 annually to zero subsidy in year six (6).
- The University of Akron:
  - begins to offer flight program courses for credit.
  - begins for arrangement of a joint Aeronautical Engineering degree.
  - considers a joint "Associate Degree" in aviation.
  - considers a joint "Computer Engineering" degree by 1999.
- Kent State University:
  - provides for the organization of a "Department of Aviation" reporting to the Provost's office.
  - provides for a subsidized budget for the new "Department of Aviation."
  - leases the KSU Airport to a Fixed Based Operator (FBO) and allows that FBO to occupy the present KSU Airport facilities and operate the airport.
- Airspect Air:
  - leases all facilities to the new "Department of Aviation" at a rate of \$12,000/month. (Facilities expenses projected at \$1,500/month additional.)
  - provides Kent State University a 15 or 20 year lease with an option to purchase at the end for a reasonably small lump sum.
- A Board of Advisors representing Kent State University, the University of Akron, the city of Akron, along with aviation business and educational representatives is developed to oversee the "Department of Aviation" operations.

#### School of Technology "Center for Aviation Studies" Proposal

- Kent State University establishes a "Center for Aviation Studies" by reorganizing Aerospace Flight Technology and consolidating that operation with the KSU Airport operation and FAA Testing Center.
- The new "Center for Aviation Studies" reports to the Provost's office
- Increased utilization of University resources is achieved through controlled growth to maximum capacity of the Airport/Flight Operations resources.
- Existing Airport and Aerospace Flight Technology personnel resources are pooled in order to reallocate and combine functional responsibilities where possible.

- A new funding structure which is more in line with other academic units is established.

While the two proposals contrast considerably, the commonality of the two include (1) increasing enrollment to maximum capacity; (2) reorganization of the structure more along academic lines; and (3) increasing visibility and prominence within the aviation, educational and local communities.

It was soon determined by the Task Force that a primary goal of Kent State University should be to maximize the use of resources available both at the Airport and Flight Training, while at the same time being both fiscally responsible to the University and sensitive to community concerns. To achieve this, attention focused on the viability of joint ventures with the University of Akron and the possibility of alternative locations for flight operations.

Joint Ventures with the University of Akron. With respect to joint ventures with the University of Akron, it was determined through discussions between university administrators that the University of Akron was not interested in pursuing any joint ventures in aviation/aerospace with KSU at this time. This fact, alone, re-focused the exploratory direction of the Task Force.

While the issue of collaboration with the University of Akron was beyond the control of the Task Force, it was determined that there are many positive aspects of the *"Combined KSU/UA/City of Akron Aviation Proposal"*. Advantages of a collaborative effort include benefits such as the sharing and better utilization of resources, enhanced marketing efforts, expanded research endeavors and increased enrollment. It should be noted, however, that collaborative efforts would have significant financial and operational impact on both universities, details of which should be closely evaluated when such endeavors take place. Collaboration with the University of Akron may also provide KSU with an entree into engineering degrees with joint programs in Aeronautical Engineering and Computer Engineering. Because of the substantive benefits of collaboration, it is recommended that future discussion take place aimed at establishing joint ventures that benefit both Kent State University and the University of Akron.

Alternative Sites for Flight Training. Alternative sites that were investigated include Airspect Air and Akron Storage, both located at the Akron Fulton Airport, and the general terminal facilities at Portage County Airport. Consideration was given to these three sites as possible alternative training sites and/or additional training sites if the size of training operations could not feasibly be conducted at the KSU Airport. Listed below is a brief summary of the advantages and disadvantages of each site.



#### Airspect Air Facility, Akron Fulton Airport:

- Advantages:
  - the Akron Fulton airport has significant "flight side" facilities (crosswind reliever runway, substantial ramp space, possibility of control tower, and enhanced navigational aids.)
  - there exists an established (but somewhat limited) customer base.
  - the modern "ground side" facilities (terminal & office/classroom) are designed as an aviation facility, would require minimal modification and are sufficient enough to handle enrollment of significant proportions.
- Disadvantages:
  - there is no location for a dedicated maintenance facility.
  - the cost of building lease/operating expenses is estimated at \$13,500/month.
  - the location of the facility is less desirable than the KSU Airport in relation to the KSU campus.

#### Akron Storage Facility, Akron Fulton Airport:

- Advantages:
  - the Akron Fulton airport has significant "flight side" facilities.
  - there appears to be significant interest on the part of Akron Storage to accommodate the needs of Kent State University.
  - there is a substantial amount of space available for lease.
- Disadvantages:
  - there are perceived operational difficulties between Akron Storage, City of Akron and Loral Defense Systems (owner of facility).
  - the cost of lease of building/storage facilities is estimated at \$10,000 - \$12,000/month.
  - the location of the facility is less desirable than the KSU Airport in relation to the KSU campus.
  - there is a shortage of aviation fueling facilities.
  - the facilities, while adequate in size, would need considerable renovations to accommodate the proposed operations.
  - the remainder of the facility, currently being used as a distribution center, is noisy and would not be compatible with a classroom environment.

## Portage County Airport Facility:

- Advantages:
  - the airport is located in a very sparsely populated area in which flight operations would have minimal adverse community impact.
  - there appears to be significant interest from the Portage County Airport Authority in cooperation with Kent State University.
  - the airport has planned and acquired initial FAA approval of \$5 million in facility improvement grants over the next 5 years.
- Disadvantages:
  - the location of the facility is less desirable than the KSU Airport in relation to the KSU campus.
  - limited "flight side" facilities in that there is only one runway with no plans for any type of crosswind relief runway.
  - no adequate "ground side" facilities immediately available for use.
  - current "flight side" facilities less desirable than facilities at the KSU Airport.

While all three of these sites have their own distinct advantages and disadvantages, it was determined by the Task Force that without the participation of the University of Akron, the financial investment required made relocating with the current program unfeasible. Relocation would increase the expenditures of the Flight Training operational budget and have a significant negative financial impact on KSU Airport operations. Additionally, the salient benefits of keeping "KSU at KSU" include marketing, visibility, program uniqueness, and convenience of location for KSU students and staff.

It was determined that current "ground side" facilities at the KSU Airport, while marginal, will be suitable for both Airport and Flight Training operations based on current enrollment and forecasted growth projections by the Task Force for the next five years. With modest capital investment into the "ground side" facilities, the location will be quite adequate during and beyond the five year period.

Oversight Responsibilities of the KSU Airport and Flight Operations. Both proposals include recommendations for the combining/consolidating of Airport/Flight Training resources into a single unit reporting to the Provost's office. While there are definite benefits to consolidation, the details of both proposals were contingent upon having a full-time professional aviation director. The Task Force does not recommend the addition of such a position at this time. It is viewed that the proposed organizational structures are too "top heavy" administratively and that such a change would not be prudent in the current financial climate of the University. The current administrative framework is capable of facilitating the phased growth and increased financial viability of the KSU Airport and Flight Training.

## Task Force Recommendations

### General

The Task Force has concluded that both KSU Aerospace Flight Training and the KSU Airport have been and continue to be important resources to the University and to Northeast Ohio. Significantly, each unit has the potential to increase its value to the University while, at the same time, becoming more cost efficient. With effective marketing, facilities updating, and curricular renovation, the following can be accomplished:

- 1.) The KSU Airport can generate increased revenue relative to cost;
- 2.) KSU Flight Training can grow from its present size of 200 to 250 majors over a five year period at a rate of approximately 5% per year; and
- 3.) The aircraft fleet can be upgraded on a regular basis.

The Task Force finds the present facilities at the KSU Airport to be marginal for growth of the Flight Training Program during this period. Facilities at the KSU Airport will be adequate until major enrollment reaches a level of 250-300, which is not projected until 2001. New and modern facilities would probably enhance enrollment marketing efforts as well as increase general aviation traffic. Planning efforts need to be immediately directed toward securing a capital prioritization sufficient to yield a new building by the early 2000's.

Kent State University maintains federal (FAA) and state (ODOT) contractual assurances to operate the KSU Airport through 2012. The Task Force recognizes the University's obligation and supports the University's right to operate the facility and the educational enterprise located at the KSU Airport. At the same time, however, the Task Force recognizes that the KSU Airport and the Flight Training Program operate within the context of the surrounding community. Accordingly, recommendations have been formulated which recognize the necessity to (1) continue our voluntary noise abatement program, (2) maintain an enrollment ceiling on Flight Training activities at the KSU Airport, and (3) maintain communication with the Stow/Munroe Falls communities.

### Size Issues With Respect to Ultimate Enrollment and Growth Rate.

Fundamental to many of the issues the Task Force has investigated has been the matter of controlled growth of the Flight Training program. We have been especially concerned with determining how best to achieve growth with respect to the ultimate enrollment size of the Flight program, the rate of growth, and the impact of that growth on students, academic quality, resources, the surrounding community, costs, and revenues.

More so than most academic programs, the academic quality of the Aerospace Technology programs is directly affected by the size of the student enrollment. Unlike most



programs, where faculty positions and laboratory courses are funded by E&G budgets, the flight program faculty and laboratories are funded solely by student special fees associated with flight courses. Because of this situation there is a need to maintain enrollment at sufficiently high enough levels to cover the costs of faculty, aircraft, and related flight laboratory associated expenses. Also, because Airport revenues are directly impacted by the size of flight operations, there is additional incentive to conduct as many flights as practicable in order to defray the operating costs of the Airport.

As a result, a dilemma exists in that the flight program is compelled to make the enrollment as large as possible to generate sufficient revenue. At the same time, however, the program incurs the attendant problems associated with high levels of flight activity. Since KSU is a service-oriented institution, in principle, academic or programmatic decisions should not be unduly influenced by fiscal concerns. However, the University must be fiscally responsible in its actions and has a vested interest in securing revenues, whenever possible, that defray costs and enhance the delivery of academic programs. Consequently, because there are significant fixed overhead costs and aircraft replacement costs associated with flight operations, the program is necessarily driven toward generating as much revenue as possible (mainly through enrollment) without overwhelming available resources or compromising the academic rigor and excellence currently provided.

Based on an analysis of resources and other issues presented elsewhere in this document, the Task Force submits several recommendations regarding growth, listed below.

Specific recommendations regarding controlled growth are as follows:

1. Attain a 5% annual growth rate in flight course enrollment over the next five years. This growth is to be realized through University supported marketing and recruiting efforts and through implementation of curricular recommendations described elsewhere in this document.

An analysis of previous marketing and recruiting efforts, demographics, current trends in the aerospace industry, and available resources indicate that an incremental growth in enrollment of 5% annually is reasonable and manageable.

2. Establish an ultimate maximum enrollment limit of 150 flight students per semester until additional facilities are secured.

The main factor influencing the maximum size of the flight program is the limitations of the existing facilities, particularly the Operations Building. When the program was at its peak enrollment of approximately 200 students per semester, the facilities were inadequate and severely overextended. Therefore, the Task Force recommends a maximum enrollment of 150 flight students per semester based on past experience, and upon our analysis of existing Airport facilities, program costs, community impact, and available resources. This limit would be significantly below the maximum program enrollment and represents nearly a 25% reduction from the peak level of 428 students in 1988.

An additional factor in this recommendation is the importance of Aerospace Technology programs to the School of Technology. The Aerospace Technology programs have a beneficial and significant role in the School of Technology in that they fulfill the mission of the School to produce Technologist and Engineering Technologist graduates and contribute to the critical mass of enrollment required by the School to operate effectively and efficiently.

Another consideration related to the maximum enrollment is the impact of increased operations on the surrounding community. While the University should make every attempt to not unnecessarily disturb or otherwise antagonize the surrounding community, it must be made clear to the public that the Airport is a public airport and that the University has the obligation, right, and responsibility to provide the services that taxpayers and students pay for. The University should not make decisions that seek to placate the very small, but very vocal, local opposition to Airport operations; however, it should point out that the program will not grow beyond its previous high mark and that, in fact, we have reasonably compromised size to a number smaller than it was in the recent past.

Finally, the University has an opportunity to make a positive statement in support of significant growth of the program that will help to counter the cynicism and negativity currently surrounding the program.

3. Perform an assessment of the flight program at the five year benchmark to determine the successes, needs, and future directions of the program.

If the program is successful in building a strong foundation during the five year growth period, then it will be necessary to determine if further growth is warranted and to explore the possibility of establishing satellite facilities to accommodate the growth.

#### Faculty Recommendations

The Task Force believes that a change in current faculty composition and job responsibilities should be made that would better meet the best interests of students, the Aerospace Technology faculty, and the University. The policy of funding faculty lines strictly through special student fees runs counter to policy in other academic units at the University, fostering an atmosphere in which academic decisions are improperly controlled and unduly influenced by fiscal considerations. In addition to being detrimental to the program and staff morale, the current faculty structure is unwieldy and inefficient from an academic and administrative perspective. The lack of tenured faculty also has caused a decline in faculty continuity and an inability of the faculty to effectively engage in scholarly activities and research. Overall, this situation is harmful to the long-term quality of the Aerospace Technology programs.

Because of the inadequacies in faculty staffing referenced in the "History" section, the Task Force believes that it is essential that current faculty be restructured into a configuration and composition that will serve two key purposes:



1. Demonstrate a commitment by the University to Flight Training and put forth a positive statement of support for Aerospace Technology programs to students, parents, faculty, and the community.
2. Provide a substantial infrastructure of highly-qualified, highly-credentialed, career-oriented professional tenure-track faculty that will be able to seek out and secure grants, perform research, teach undergraduate and graduate courses, develop and improve laboratories, and otherwise engage in activities that are beneficial to the University and the surrounding community.

In addition, this structure will provide the expertise, stability, and continuity necessary to increase and maintain program excellence and increase efficiency. These changes will allow Aerospace Technology to better serve students and will provide a foundation that will accommodate further growth and movement to a higher level of quality and excellence.

#### Specific faculty recommendations:

1. To transform the current faculty composition of 1 Tenure Track faculty, 1 Term faculty, 5 Educational Specialists, and 4 (1.3 FTE) Part Time faculty, into the following configuration:

- 4 Tenure Track Faculty positions
- 2 Instructor positions on nine month terms
- 2 Instructor positions on twelve month terms

This proposed reorganization of staffing is based upon enrollment and staffing needs projected by the Task Force and offers the most efficient method of providing academic instruction across all Aerospace Technology programs. The new faculty structure would be composed of three levels of positions with different requirements regarding experience, abilities, academic credentials, scholarly expectations, and instructional responsibilities. This new structure will accommodate all instructional and flight related duties of all Aerospace Technology programs with a total proposed increase in personnel funding of \$19,394 (See Appendix B).

A. The first level will consist of faculty holding tenured/tenure track appointments at the Assistant Professor level. Their primary responsibility will be teaching undergraduate and graduate Aerospace Technology courses with an emphasis on the engineering related aerospace courses and advanced aeronautical science courses. When appropriate and necessary, these individuals shall also be capable of teaching fundamental technology courses within the Technology core courses of the School of Technology. Additional responsibilities will include grant writing, developing a master's degree program and providing graduate instruction, engaging in research and scholarly activities, and serving on various school and university committees.



Minimum qualifications will be a Ph.D. or master's degree with appropriate experience/qualifications. There may be some flight related duties, but these will be limited to a maximum of 1/4 time load.

B. The second level will be those holding 9 month term appointments as Instructors. Their responsibilities will mainly involve the teaching of flight-related courses and basic aeronautical science courses. Qualifications include a master's degree and/or other appropriate credentials. Flight instruction duties will comprise approximately 1/2 of their load.

C. The third level will be those holding 12 month term appointments as Instructors. Their responsibilities will consist entirely of flight-related duties, including stage checks, standardization, and supervision of flight instructors. These faculty members will not be assigned classroom instruction. Minimum qualifications will be a bachelor's degree along with appropriate FAA credentials to serve as a chief/assistant chief flight instructor.

### Curricular Recommendations

Several programmatic/curricular recommendations are presented below. These recommendations are directed towards several specific goals: to promote growth by removing current restrictions to enrollment and by increasing access; to raise efficiency through increased enrollment during Summer sessions, intersession periods, and other periods of reduced activity and enrollment; and to increase the academic quality of all Aerospace programs.

1. Allow open enrollment for all flight courses.
2. Establish an Aerospace Flight Technology minor.
3. Continue and expand Selective/Controlled Admissions Standards (2.25 GPA) to all Aerospace Technology programs and controlled enrollment in all upper division aeronautical science courses.
4. Remove the University imposed cap (80 students) on the number of Freshman admissions to Aerospace Flight Technology.
5. Implement a self-imposed limit of 150 flight students per semester with the current facilities. Also, to restrict enrollment in flight courses to only Aerospace majors through controlled registration when flight course enrollment is within 10% of the maximum limit.
6. Begin a feasibility review of an Aeronautics option for a Master of Science degree in Technology in order to enhance the quality of the Aerospace programs and to further attract students to the University.

7. Provide increased access and educational opportunities for non-traditional students and others through evening and weekend flight courses/seminars by means of the College of Continuing Studies.
8. Establish formal articulation agreements to encourage and promote matriculation of students at colleges with 2 year Aviation degree programs into the Aerospace Technology degree programs at Kent State University. In addition, to engage in collaborative efforts with other educational institutions within this region.
9. Establish community and high school aviation programs that will educate the public, improve community relationships, and encourage attendance at KSU in pursuit of an aviation career.
10. Develop programmatic and curricular methods of increasing utilization of aviation resources during the Summer terms and other available times.

#### Budget Findings and Recommendations

Current Budget Structure. The current costs associated with the four Aerospace Technology programs (Aerospace Engineering Technology, Aerospace Flight Technology, Aerospace Manufacturing Management Technology, and Airway Science/Airway Computer Science) are housed in two separate E & G budgets - School of Technology (#100163) and Flight Training (#101097). An analysis of these two budgets reveals the following:

Fiscal Year 1995 School of Technology budget applicable to Aerospace Technology	\$195,420
Fiscal Year 1995 Flight Training budget	791,371
Fiscal Year 1995 flight fees generated by the program (estimated)	(720,000)
Net E & G Commitment	<u>\$266,791</u>

While the fiscal 1996 budget has not been finalized, no drastic changes are envisioned.

Resource Requirements. The Committee believes that the budget philosophy behind the Flight Training program needs to change. In the past, flight course fees were expected to cover all costs of the academic program. The School of Technology has affirmed that the Aerospace Flight Technology program continues to fit within the mission of the School; therefore, flight fees should be treated as are any other special course fees, and the program should be budgeted in a manner similar to any other academic program.

In order for the flight training program to achieve phased-in growth, and to establish appropriate, realistic financial benchmarks, five-year budgets have been developed by the Committee and are included as Appendices C and D. Several specific items in these budgets warrant additional discussion below.

Faculty. It is important for accountability and benchmarking that faculty lines associated with the Aerospace Technology programs be identified appropriately. The budgets as proposed reflect the appropriate staffing necessary to service the enrollments in both the classroom and the flight portions of all four Aerospace Technology programs, as discussed in the curriculum section of this report.

Aircraft/Engine Replacement. As has been discussed previously, all of the University's aircraft are, at a minimum, ten years old. A fleet of this age requires additional maintenance and is not a strong advantage as the University attempts to market the program. The aircraft do, however, still have value on the resale market. Additionally, since the passage of the General Aviation Revitalization Act on August 17, 1994, Cessna has indicated that it again plans to manufacture new Cessna 172's, at a projected cost of \$125,000 each. In light of these circumstances, the budgets include funding for aircraft and/or engine replacements. While fiscal constraints of the past several years have precluded funding new aircraft, it is recommended that a phased replacement program be implemented. The Task Force recommends selling five of the Cessna 152's, using the proceeds as down payments, and utilizing a seven year lease/purchase plan for approximately five new Cessna 172's. The fleet would then be comprised of nine 152's, nine 172's, four 172RG's and two Piper Seminoles. This would enable the Aerospace Flight Technology program to support the five-year projected enrollment and upgrade the quality of the fleet. Additionally, the faculty and staff would have the flexibility to make decisions on maintenance of older aircraft based upon actual enrollments, since the budgets also include appropriate funding (utilizing an allocated fund balance) to replace engines on a regularly-scheduled basis, until such time as the remaining older aircraft could be replaced.

Flight Fees. Current KSU flight fees in comparison to those at other universities are at approximately the upper quartile and are within 1% of the highest in the state (see Appendix A). While increases to flight fees must continue to provide for increased expenditures, they should be held to a modest level and made on a more regular and justifiable basis. It is recommended that flight fees be increased in accordance with inflation or slightly higher as long as fees can remain competitive. For the purposes of financial planning, an annual 4% increase in flight fees has been used.

Self-Insurance Fund. The budgets as presented include a component for self-insurance. This will enable the University to reduce future reliance on traditional insurance and hopefully minimize potential premium increases.



Five-Year Summary. As indicated in Appendix E, the growth of the flight program will require an ongoing, but declining, commitment of E & G funds, from an estimated \$441,000 in fiscal 1997, to \$302,000 in fiscal 2001. This commitment is based upon the following assumptions:

- 1) Enrollment increases of five percent annually;
- 2) Flight course special fee increases of four percent annually;
- 3) Annual expenditures ranging from \$140,000 (FY97) to \$153,000 (FY01) to cover aircraft acquisition and engine replacement, some of which would be offset by a reduction in the maintenance budget.

It is anticipated that this level of E & G contribution would enable the program to grow at a controlled rate, while upgrading the academic equipment. Should the enrollment increase exceed projections, particularly in the early years, this commitment of funds could be lower than anticipated.

Airport Budget. The decline in Flight Training enrollment since 1989 has severely impacted the Airport budget. Budgetary constraints precluded needed improvements to the operation, allowing only for necessary, safety-related maintenance upkeep. Airport expansion has been suppressed due to limited funding.

Over the years, the Airport operation has been supported by E & G funds at an average contribution of \$150,000 annually. The Airport has continued to maintain safe service operations in compliance with Federal, State, and university standards and requirements throughout this period, but dwindling revenues from aircraft utilization, fuel sales, and pilot supplies required significant operational support from E & G funds. Clearly, rejuvenation of the Flight Training program would restore Airport operations to a position of financial viability in support of continued service integrity and safety.

The Task Force has developed performance benchmarks to guide and measure the impact on the Airport's budget of a program of phased-in growth in Flight Training enrollment. These projections outline target revenues and expenses for the Airport to the year 2001, factoring in a 5% enrollment increase (See Appendix F). These projections represent an increase in new revenues averaging approximately \$68,000 annually. Consequently, the past operational support levels from E & G funds will decrease significantly to an average of \$56,000 annually during this period. These projections are based on accomplishment of the following activities:

- Increased fuel and supply sales should be realized due to a projected 5% annual growth in Flight Training student enrollment. This will amount to approximately \$90,000 in additional revenues over the five year period.
- A plan to market fuel and supplies to the general aviation public should be developed and implemented, generating approximately \$155,000 in additional revenue over the five year period.

- The Airport should pursue opportunities to lease Airport land for development. Possible opportunities may include leasing land to other Fixed Base Operators (FBO's), professional building developers, small commercial operations, farmers, the adjacent golf course developer, and for the construction of additional T-hangars. It is projected that the Airport will receive a conservative estimate of \$90,000 in new revenues during this five year period.
- No additional staffing or equipment will be needed during this period. Operational support needs should remain stable.
- Projections regarding operating expenses include allowances for future inflation. Purchases of fuel and supplies will increase in direct proportion to sales.
- The projections include the establishment of a reserve fund for equipment and capital needs. An amount of \$15,000 should be allocated annually, accumulated, and used for the purchase of navigational and weather aids, replacement of equipment, local share for FAA and ODOT grants, major repairs to the terminal, and computerization.

The Task Force recommends that the Airport continue to apply for grants from the FAA and ODOT to fund capital improvement projects such as ramp extension, deer fencing, ground clearing, and runway repair. Acceptance of FAA and ODOT grants requires the Airport to remain operational for 20 years after receipt of each grant.

The Airport's performance throughout the period of phased-in growth should be regularly measured against the projected benchmarks and reviewed for continuous improvements in cost efficiency, productivity, revenue enhancement, and accountability.

#### Capital/Building Recommendations

The Task Force recommends that new facilities be constructed to house the Airport and Flight Training operations.

Currently, the Airport and Flight Training operate out of several buildings which are marginally adequate. Flight Training classes are conducted in two trailers which were originally intended for only temporary use until new facilities could be built. The FAA Examination Center is housed in another temporary trailer of the same type. These trailers are not conducive to an appropriate classroom atmosphere. They are inconvenient, difficult to secure, and present a continuing financial burden in operational maintenance costs. The Airport terminal provides minimally adequate office space for staff, limited accommodations for flight operations, no conference rooms or storage areas, and no pilot lounge.



The construction of a new Aviation and Operations Center is included as part of the overall Airport Master Plan. With phased-in growth of the Flight Training program, there will be further demands on the Airport's already limited physical facilities, making a new facility a necessity by the end of 2001.

In order to efficiently and professionally accomplish the respective missions of the Airport and Flight Training, the Task Force proposes the construction of a building of approximately 13,000 square feet, with an estimated cost of \$2.1 million. This building would adequately serve the current and future needs of both the Flight Training program and the general aviation public.

This facility will include a weather and flight planning room, pilot lounges for students and public customers, conference rooms, testing center, office space, simulator room, dispatch area, storage/records/equipment room, classrooms, restrooms, and a maintenance and safety equipment area.

This project should be included in the University's capital plan. A program review needs to be conducted in order to determine specific facility needs.

#### Marketing Recommendations

The Task Force recommends that a strategic long-range marketing plan be established. This plan can be developed utilizing the internal resources of the University, particularly the combined efforts of Aerospace Flight Training faculty and staff, Airport staff, the Marketing department in the College of Business Administration, and the marketing expertise of the College of Continuing Studies.

Marketing the Flight Training and related Aerospace Technology programs to prospective students will ensure that enrollment levels are reached and maintained. University recruitment efforts in high schools, adult education programs, at each KSU campus, and through the Admissions office will attract students to this unique program. Visibility of the program will be heightened in University promotional materials, as well as in regional and national publications. Special emphasis will be placed on Kent State University's national prominence in the field of Aerospace Technology studies. This program is known for its quality curriculum and faculty, and programs which couple Aerospace Engineering and Technology theory with hands-on experience.

In an effort to fully utilize Airport resources and enhance revenue, a marketing plan should be developed to promote the features and services of this regional airport facility. The Airport should build cooperative relationships within the business and educational communities, working in partnership to identify needs and develop long-range strategic plans associated with regional development. Additionally, the Airport should pursue opportunities to lease land for development purposes.



The marketing plan should include the development of community outreach programs. A community education initiative will heighten awareness of the Airport's value as a resource to the surrounding communities. Public perception of the Airport can be positively influenced by informing and educating nearby residents and businesses about the positive aspects of a community airport.

In an effort to maintain a good neighbor policy, Kent State University must remain sensitive and responsive to local community concerns. The University should continue to meet with local officials to address issues of community interest.

The Task Force believes that University administration should develop a new philosophy in support of Flight Training which will positively impact University and community perception of the program. Since the viability of the Flight Training program within the School of Technology curriculum has been affirmed, and its contributions to the academic mission acknowledged, the next step is to recognize the operational structure of the Flight Training program as an integral part of the academic unit, rather than as a self-supporting auxiliary operation. Marketed and supported effectively, this program's position as an asset to the University will be advanced.

## APPENDIX A

### Survey of Costs of Flight Training

# Survey of Costs of Flight Training

## 2 and 4 Year Institutions

Special Flight Course Fees Associated with Flight Courses  
Leading to Commercial Pilot Multi-Engine and Flight Instructor Certificates  
(Fees current as of January, 1995)

<u>School</u>	<u>Flight Costs</u>
Texas State Technical Institute - Waco, TX . . . . .	\$12,500
Vincennes University - Vincennes, IN . . . . .	\$15,408
Central Missouri State University - Warrensburg, MO . . . . .	\$15,500
Palo Alto College - San Antonio, TX . . . . .	\$15,900
Auburn University - Auburn, AL . . . . .	\$16,691
Ohio University - Athens, OH . . . . .	\$17,615
Bowling Green State University - Bowling Green, OH . . . . .	\$18,931
Parks College of St. Louis - Cahokia, IL . . . . .	\$19,500
Southern Illinois University - Carbondale, IL . . . . .	\$19,926
Aims Community College - Greeley, CO . . . . .	\$20,000
University of North Dakota - Grand Forks, ND . . . . .	\$21,887
Kent State University - Kent, OH . . . . .	\$23,774
Ohio State University - Columbus, OH . . . . .	\$24,007
Florida Institute of Technology, Melbourne, FL . . . . .	\$24,369
Daniel Webster College - Nashua, NH . . . . .	\$24,550
Embry Riddle Aeronautical University - Daytona Beach, FL . . . . .	\$26,700



## APPENDIX B

### Aerospace Technology Staffing (Current and Proposed)

# AEROSPACE TECHNOLOGY STAFFING

Current Staffing  
Fiscal Year 1994-95

Name	Appointment	Budget	Salary
Ms. Robin Bennett	12 m. Civil Service	Technology	\$24,743
Mr. John Duncan	9 m. Tenure Track	Technology	\$44,226
Mr. Thomas Grossman	12 m. Term	Technology	\$38,518
Mr. Kevin Hart	12 m. Ed. Spec.	Flight Training	\$25,477
Mr. Joel (Pat) McKinzie	12 m. Ed. Spec.	Flight Training	\$29,849
Ms. Kris Palcho	12 m. Ed. Spec.	Flight Training	\$24,981
Ms. Ruth Sitler	12 m. Ed. Spec.	Flight Training	\$34,605
Mr. Charles Wentz	12 m. Ed. Spec.	Flight Training	\$31,945
Mr. Bill Musolf	Adjunct/Part Time	Tech./Part Time	\$ 5,000
Mr. Anotol Kwartler	Adjunct/Part Time	Tech./Part Time	\$13,200
Mr. Lynn Feterle	Adjunct/Part Time	Tech./Part Time	\$12,120
Mr. Rick Kattell	Adjunct/Part Time	Tech./Part Time	\$ 2,200

Summer Load	Contingent
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Total cost FY 1994-95	\$286,864
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Projected cost for current configuration FY 1996-97 (3.5% inc.)	\$296,904
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## Summary of faculty positions

1	Tenure Track
1	Term Faculty
5	Educational Specialists
4(1.3 FTE)	Part Time

# AEROSPACE TECHNOLOGY STAFFING

## Proposed Staffing Projected Salaries 1996-97

Name	Appointment	Budget	Salary
Ms. Robin Bennett	12 m. Civil Service	Flight Training	\$25,600
Mr. John Duncan	9 m. Tenure Track	Technology	\$45,800
Vacant	9 m. Tenure Track	Technology	\$38,650
Vacant	9 m. Tenure Track	Split	\$38,650
Vacant	9 m. Tenure Track	Split	\$38,650
Vacant	9 m. Term Faculty	Split	\$35,000
Vacant	9 m. Term Faculty	Split	\$35,000
Vacant	12 m. Term Faculty	Flight Training	\$26,200
Vacant	12 m. Term Faculty	Flight Training	\$26,200

Adjunct:			
1 FTE/each 50 flight students over 100	Flight Training	Hourly	

### Summer Load

Coordinator	Flight Training	\$ 6,548
Adjunct as necessary (dep. on enrollment)	Flight Training	Contingent

Total projected cost FY 1996-97	\$316,298
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### Summary of proposed faculty/civil service positions:

1	12 Month Civil Service
4	9 Month Tenure Track
2	9 Month - Term Faculty
2	12 Month - Term Faculty



# AEROSPACE TECHNOLOGY STAFFING

## Proposed Load and Budget Distribution

John Duncan - 9 month tenure track	Fall	Spring
TECH 35040 Aerospace Systems	3	
TECH 45030 Adv. Aerospace Systems	3	3
TECH 45350 Avionics	4.5	4.5
TECH 45700 Aircraft Design		4.5
Aerospace Technology Coordinator	3	
Total Load	13.5	12

Budget Distribution: Technology - 100% Flight Training - 0%

Vacant - 9 month tenure track	Fall	Spring
Technology Instructional Load	6	6
Flight Training Duties		
Administrative	2	2
Instructional	1	1
Coordinator	3	3
Total Load	12	12

Budget Distribution: Technology - 50% Flight Training - 50%

Vacant - 9 month tenure track	Fall	Spring
Technology Instructional Load	9	9
Flight Training Duties		
Administrative	1	1
Instructional	2	2
Total Load	12	12

Budget Distribution: Technology - 75% Flight Training - 25%

Vacant - 9 month tenure track	Fall	Spring
Technology Instructional Load	12	12
Total Load	11.5	12.5

Budget Distribution: Technology - 100% Flight Training - 0%

Vacant - 9 month term instructor	Fall	Spring
Technology Instructional Load	7	10
Flight Training Duties		
Administrative	3	2
Instructional	4.5	3.5
Total Load	14.5	15.5

Budget Distribution: Technology - 50%      Flight Training - 50%

Vacant - 9 month term instructor	Fall	Spring
Technology Instructional Load	9	10
Flight Training Duties		
Administrative	2	1
Instructional	4	4
Total Load	15	15

Budget Distribution: Technology - 66 2/3%      Flight Training - 33 1/3%

Vacant - 12 month term faculty	Fall	Spring	Summer
Flight Training Duties			
Administrative	6	6	6
Instructional	9	9	9
Total Load	15	15	15

Budget Distribution: Technology - 0%      Flight Training - 100%

Vacant - 12 month term faculty	Fall	Spring	Summer
Flight Training Duties			
Administrative	6	6	6
Instructional	9	9	9
Total Load	15	15	15

Budget Distribution: Technology - 0%      Flight Training - 100%

# AEROSPACE TECHNOLOGY STAFFING

## Proposed Technology Instructional Loads

<u>Technology Instructional Load for Vacant Faculty Lines</u>	Fall	Spring
EXPR 10290 University Orientation	3	
TECH 15000 Aerospace Technology	3	3
TECH 15740 Elements of Flight Theory	4.5	4.5
TECH 25250 Elements of Aviation Weather	2	2
TECH 25744 Instrument Flight Theory	3	3
TECH 35020 Aerospace Propulsions	3	3
TECH 35040 Aerospace Systems		3
TECH 35101 Helicopter Theory		2
TECH 35150 Aerospace Structures	4.5	4.5
TECH 35340 Airport Management	2	
TECH 35341 Air Trans. & NAS		3
TECH 35648 Theory of Flight Instr.	3	3
TECH 35746 Commercial Pilot Theory	2	2
TECH 45092 / TECH 41096	2	
TECH 45121 Adv. Aerospace Propulsions		3
TECH 45130 Aero Phys & Human Factors		3
TECH 45150 Applied Flight Dynamics	3	3
TECH 45250 Aviation Law & Safety	3	
TECH 45291 Aerospace Senior Seminar	2	2
TECH 45651 Flight Instructor Instrum.	2	2
TECH 45653 Multi Engine Pilot	1	1
Total Load	43	47



## AEROSPACE TECHNOLOGY STAFFING

### Explanation of Flight Training Duties

Coordinator duties include but are not limited to:

- Coordination of marketing and advertising
- Coordination and direction of flight operations personnel
- Developing and administering flight operations budget
- Developing and submitting flight operations academic proposals
- Coordinating flight operations business such as:
  - Insurance
  - FAA supervision
  - Staff meetings

Administrative duties include but are not limited to:

- Aircraft maintenance supervision
- Dispatch supervision
- Flight instructor/student progress supervision
- Safety program coordinator
- Student advising
- Flying club/Flight team advisor
- Assist in recruitment/marketing
- University transportation
- Evening and weekend supervision

Instructional duties include but are not limited to:

- Flight instructor standardization flights
- Student progress flights
- Student final course flights & exams
- Writing and administering written exams
- Flight course teaching