## UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Office of the Provost and Vice Chancellor for Academic Affairs Swanlund Administration Building 601 East John Street



November 9, 2010

Champaign, IL 61820

Abbas Aminmansour, Chair Senate Committee on Educational Policy Office of the Senate 228 English Building, MC-461

Dear Professor Aminmansour:

Enclosed is a copy of a proposal from the Chancellor and Vice Chancellor for Academic Affairs to eliminate the BS in Aviation Human Factors, the Professional Pilot Curriculum, and the MS in Human Factors in the Institute of Aviation.

Sincerely,

Kust flumts

Kristi A. Kuntz Assistant Provost

KAK/njh

Enclosures

c: R. Easter R. Wheeler



# **Proposal to the Senate Educational Policy Committee**

#### **PROPOSAL TITLE:**

Eliminate the Bachelor of Science in Aviation Human Factors, the Professional Pilot Curriculum, and the Master of Science in Human Factors in the Institute of Aviation.

#### SPONSOR:

Robert A. Easter Chancellor and Provost (Interim)

Richard Wheeler Vice Chancellor for Academic Affairs (Interim)

#### **BRIEF DESCRIPTION:**

Chancellor Easter (Interim) and Vice Chancellor for Academic Affairs Wheeler (Interim) recommend the elimination of the Bachelor of Science in Aviation Human Factors, the Professional Pilot Curriculum and the Master of Science in Human Factors in the Institute of Aviation. The programs will be phased down and current students will be allowed to complete their degrees. The proposal recommends ceasing admissions activity effective Fall 2011. Existing students will continue to be supported during the completion of their studies.

#### JUSTIFICATION:

The Institute of Aviation has a prestigious history and a well-earned reputation for being a leader in aviation education. Almost as long as its history, however, questions about its "fit" and the strength of its ties to our core missions have existed. Over the years the campus has continually examined how we may support the Institute, its faculty and students, while honoring our larger commitments to the broader student body, campus community and the public. In 2007, those efforts led then-Provost Linda Katehi to charge a Blue Ribbon Committee to study the research, education and service mission of the Institute of Aviation. The Blue Ribbon Committee proposed that the campus transform the Institute of Aviation into a new College of Technology and Society. Although the fiscal circumstances did not support the creation of a new college at that time or currently, our faculty continue to be leading researchers and educators in the field of technology and human interaction and we remain committed as a campus to supporting this exciting and important work.

Fueled by that commitment, in 2008, Provost Katehi asked the Human Factors faculty to work with others from across campus to examine whether opportunities existed to bring together their work by transferring the Human Factors programs and creating a multidisciplinary program within an existing college. Unfortunately, these efforts to relocate the Human Factors programs into an existing campus unit were also unsuccessful. Faced with the inability to pursue the ambitious proposal for a new college and a lack of support for a transfer of the Human Factors programs, it was imperative that the campus find a way to support the 4.5 HFD faculty (two of whom were probationary faculty at critical points in their career development) whose academic unit was growing ever smaller.

Because of the interest in ensuring that all faculty have an adequate tenure home to support their academic endeavors and professional careers, the Office of the Provost encouraged the Human Factors faculty to think carefully about whether other units would provide a more robust academic home than the Institute. Towards that end, during the 2009-2010 academic year, Alex Kirlik, head of the Human Factors Division and then-Vice Provost Richard Wheeler individually worked with the faculty members to explore whether other academic units would be appropriate tenure homes. All five individuals are now in tenure-track positions in other academic units on campus. These units include the College of Engineering, the College of Liberal Arts and Sciences, the Graduate School of Library and Information Sciences, and the College of Education.

In March of 2010, the *Stewarding Excellence @ Illinois* Project team was charged with analyzing the Institute given the on-going fiscal difficulties and recent relocation of faculty. Specific questions included the viability of the degree programs in a unit with no tenure-system faculty as well as the connection of the flight training program to the academic core of the institution. In pertinent part, the Project Team was charged with examining the following questions:

With the relocation of the Human Factors faculty to other units on campus, can the BS and MS in Human Factors remain viable degrees? Should the degrees, and the students pursuing those degrees, continue to be housed in the Institute when the Institute has no tenure-system faculty?

Is the Professional Pilot flight training program sufficiently connected to the core academic mission of the University? Should the Professional Pilot program continue to admit freshmen, therefore serving as a *de facto* general studies program for students interested in pilot training? Should campus resources, both direct and indirect, be used in support of this program or should it be designated as cost recovery?

[Charge Letter, Attachment 1]

The Project Team was unable to arrive at an overarching conclusion regarding the longterm viability of the Institute of Aviation but did offer observations about the academic curricula and made several recommendations about future study and action. [Stewarding Excellence @ Illinois, Institute of Aviation Report, Attachment 2] These included the following:

- <u>Human Factors Aviation Bachelors Degree:</u> "[S]hould no academic unit with an appropriate number of tenure system faculty make a commitment to supporting the ongoing administration of this program, including the recruitment, advising, and mentoring of undergraduate students, the Office of the Provost should give consideration to beginning the phased elimination of this degree program."
- Human Factors Masters Degree: "[T]he future of the M.S. degree program in Human Factors must be tied closely both to the question of the tenure home for the faculty currently associated with the Institute of Aviation and to the question of long-term financial sustainability. An existing suggestion that the M.S. program could be housed administratively in the Graduate College must be reviewed in order to confirm Graduate College ability to undertake the administration of the program, including the recruitment, advising, and mentoring of graduate students, the management of grievance and degree completion procedures, ongoing curriculum review, etc. Likewise, a financial plan for the enhancement of tuition revenues, management of tuition waivers, etc., must be designed, approved, and implemented in order to demonstrate the long-term sustainability of this degree program from a financial standpoint, especially should the administration of this program be divorced from that of the undergraduate programs currently associated with the Institute of Aviation. Should the Institute and the Graduate College prove unable to identify an acceptable approach to addressing these issues, the Office of the Provost should give consideration to beginning the phased elimination of this degree program."
- <u>Professional Pilot Curriculum: "[T]</u>he future of the Professional Pilot program must be tied to broader discussions of the place on the Urbana Campus of technical education not leading to the award of an undergraduate or graduate degree. While there is strong support for this program among its students, there are significant financial subsidies required by the high instructional and capital costs associated with this program. In the absence of a sustainable plan for financial support of this program, e.g., through the application of differential tuition or an increase in flight fees assessed to students, the Office of the Provost should consider other organizational models to support this program, e.g., through integration with a similarly-focused academic unit on campus, and should pursue active discussion with Parkland College regarding the potential for that institution to undertake responsibility for this highly-regarded aviation education program.

Since the submission of the final SEI report, the Office of the Provost has worked with several academic units to explore the possibility of transferring the degree programs. Both the Colleges of Engineering and Liberal Arts and Science have indicated that they do not have an interest in housing the undergraduate degree programs. In either case, a transfer would require a substantial revision of the curricular requirements to align with

the other offerings of those units. These changes were determined to be beyond the scope of the units and not in the units' best interests. Similarly, LAS and the Graduate College have indicated that they are not able to support a proposal to transfer the Master degree into their respective colleges. Likewise, conversations about partnering with Parkland College ended when Parkland indicated that they could not support such a partnership.

The College of Engineering has expressed some interest in the possibility of transitioning the current Master degree program into a new Master degree with a non-aviation focus. College administration, the Department of Computer Science, and interested faculty continue to evaluate a new Master degree program that incorporates human factors scholarship but is broader than aviation and includes such areas as health care, highway safety and human-computer interaction. Those conversations are ongoing and Engineering is not prepared to present its proposal for a new masters program at this time.

In sum, elimination of the Bachelor of Science in Aviation Human Factors, the Professional Pilot Curriculum and the Master of Science in Human Factors is appropriate based on the declining enrollment, absence of tenure-line faculty within the Institute, and inability to identify new academic homes for those degree programs. The campus is called upon to make difficult decisions about how to allocate declining general revenue funds, including whether it is in the overall best interest to discontinue some academic programs. After comprehensive consideration and extensive efforts to identify other solutions, the Offices of the Chancellor and the Provost have concluded that elimination of these programs is necessary and appropriate.

### BUDGETARY AND STAFF IMPLICATIONS:

- a. Additional staff and dollars needed None. Internal reallocations (e.g., change in class size, teaching loads, student-faculty ratio, etc.) –
- b. Effect on course enrollment in other units and explanations of discussions with representatives of those departments None anticipated; explanations of discussions provided above.
- c. Impact on the University Library (A letter of acknowledgement from the University Librarian must be included for all new program proposals.) None
- d. Impact on computer use, laboratory use, equipment, etc. None

**DESIRED EFFECTIVE DATE:** Cease admissions Fall 2010; eliminate degrees upon completion of current students' studies, anticipated end of AY 2013/2014.

STATEMENT FOR PROGRAMS OF STUDY CATALOG: Not applicable.

**CLEARANCES:** (Clearances should include signatures and dates of approval) - - These signatures must appear on a separate sheet. If multiple departments or colleges, add lines.)

Signatures:

Richard Wheeler

Vice Chancellor for Academic Affairs (Interim)

hull Ead

Robert A. Easter Chancellor and Provost (Interim)

Educational Policy Committee Representative

10/8/10

Date:

November 8, 2010 Date:

Date:

# Appendix A: (Notes on Budgetary and Staff Implications) (Replace following material with your appendix, if any.)

In the past, many of the proposals for revised curricula and programs submitted to the Senate Educational Policy Committee have carried the claim, "Budgetary and Staff Implications: None." Yet some of these proposals have called for increases in required courses or hours of faculty-supervised experience; some have projected that more students would enroll in the program when the proposed change was put into effect; some programs even increased the total number of hours or courses required for a degree. Presumably, the words "Budgetary and Staff Implications: None" meant that the unit proposing the change was not requesting new dollars or faculty lines to implement the change. However, it is difficult to see how there can be increases in the number of required courses or students served without entailing budgeting implications. If new dollars are not allocated to meet these increases, the increases may be covered by offering current classes less frequently, by increasing class size, or by increasing faculty workloads.

The Committee is concerned that in many cases the faculty of a unit may agree to accept increased class size or larger workloads because they perceive that changes requiring additional dollars will be difficult or impossible to achieve. While such a decision may indeed be defensible, a pattern of such decisions represents an erosion in faculty compensation and may, if class size is increased, lead to an erosion in educational quality. Less frequent scheduling of present courses may also have broad educational policy implications.

When courses outside the sponsoring unit are required, the units offering those courses may say routinely that yes, they can accommodate the additional students, when in fact the sections presently offered may already be full or even be overenrolled. If this is the case, the new or revised program obviously has budgetary implications for the campus even if the sponsoring department requests no additional funds. EPC requires written concurrence from the executive officer of any unit offering courses outside the unit sponsoring the proposal.

Finally, new or revised programs may well require additional library acquisitions, allocations of computer time, access to laboratories, or other support services, all of which have budgetary implications.

Providing information about internal reallocations, the effect of the change on enrollments in other departments, and the impact in auxiliary units will help the Educational Policy Committee make better decisions and help the college and campus incorporate the budgetary implications of new and revised programs in a more timely and deliberative manner.

### UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Office of the Chancellor Swanlund Administration Building 601 East John Street Champaign, IL 61820



Revised March 3, 2010

#### Project Team: Institute of Aviation

Wynne Korr, Chair, School of Social Work Kanglin Chuang, Undergraduate Student Keith Marshall, Associate Provost Alison Schmulbach, College of ACES William Trent, Department of Educational Policy Studies Bruce Walden, Capital Programs and Real Estate Services Scott Walter, University Library Rayvon Fouché, Department of History (CAC liaison), *ex officio* 

Dear Colleagues:

As a campus, we are engaging in a thoughtful and thorough evaluation of how we use resources toward the broader aim of advancing excellence in our scholarship, education and outreach activities. We write to invite you to serve on a working team to review the Institute of Aviation. The primary focus of this review is the effectiveness and efficiency with which the Institute's current organizational structure enhances cross-campus intellectual synergies. Your working team is one of many that will be asked to review specific units or activities as part of the campus evaluation effort.

The financial context of the University and the state of Illinois is a catalyst for this review. Given a challenging financial climate, it is vital for the campus to carefully consider our expenses and the ways in which our investments contribute to our mission. At the same time, it is critical to emphasize that this review is a complete and open process that does not begin with a predetermined aim of withdrawing or reducing resources or concluding activities. Instead, we ask that the review openly examine the extent to which the resources dedicated to the Institute of Aviation enhance our institution and its missions.

As your team begins its work, we ask that the following key questions be explored:

• With the relocation of the Human Factors faculty to other units on campus, can the BS and MS in Human Factors remain viable degrees? Should the degrees, and the students pursuing those degrees, continue to be housed in the Institute when the Institute has no tenure-system faculty?

telephone 217-333-6290 • fax 217-244-4121

Project Team: Institute of Aviation March 3, 2010 Page 2

- Is the Professional Pilot flight training program sufficiently connected to the core academic mission of the University? Should the Professional Pilot program continue to admit freshmen, therefore serving as a *de facto* general studies program for students interested in pilot training? Should campus resources, both direct and indirect, be used in support of this program or should it be designated as cost recovery?
- Are there opportunities to partner with Parkland College, which also offers pilot training ground school? Should the Institute of Aviation be discontinued?
- How would the changes in the Institute proposed through this process affect the longterm stability of Willard Airport and/or commercial airline service at Willard Airport?

In conducting your review, we ask that your team devise a process that allows you to provide well-reasoned, comprehensive responses and recommendations on the key questions outlined above. It will be important for you to consult experts within the unit and related units, as well as internal and external stakeholders who will have valuable insights on the Institute of Aviation and its contributions to the campus and the broader community. Members of the Provost's office leadership team will also stand ready to assist you in this work, primarily Associate Provost Mike Andrechak (budget and finance), and Vice Provost Barbara Wilson (academic affairs).

We have invited Dean Wynne Korr to serve as the chair of your working team, and she has graciously agreed to do so. Staffing for your team's work will be provided by Dean Korr's office. We ask that you complete an initial written report summarizing your review by April 2, 2010.

We are deeply grateful for your time and expertise in this important review process, and look forward to your report and recommendations.

Sincerely,

Robert A. Easter Chancellor and Provost (Interim)

Richard P. Wheeler Vice Chancellor for Academic Affairs (Interim)

c: M. Andrechak T. Emanuel

B. Wilson

# STEWARDING EXCELLENCE @ ILLINOIS

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

INSTITUTE OF AVIATION

FINAL REPORT

2010



ILLINOIS

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

# STEWARDING EXCELLENCE @ ILLINOIS

INSTITUTE OF AVIATION FINAL REPORT

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#### II. COMMITTEE CHARGE

#### Revised March 3, 2010

#### Project Team: Institute of Aviation

Wynne Korr, Chair, School of Social Work Kanglin Chuang, Undergraduate Student Keith Marshall, Associate Provost Alison Schmulbach, College of ACES William Trent, Department of Educational Policy Studies Bruce Walden, Capital Programs and Real Estate Services Scott Walter, University Library Rayvon Fouche, Department of History (CAC liaison), *ex officio* 

#### Dear Colleagues:

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The financial context of the University and the state of Illinois is a catalyst for this review. Given a challenging financial climate, it is vital for the campus to carefully consider our expenses and the ways in which our investments contribute to our mission. At the same time, it is critical to emphasize that this review is a complete and open process that does not begin with a predetermined aim of withdrawing or reducing resources or concluding activities. Instead, we ask that the review openly examine the extent to which the resources dedicated to the Institute of Aviation enhance our institution and its missions.

As your team begins its work, we ask that the following key questions be explored:

- With the relocation of the Human Factors faculty to other units on campus, can the BS and MS in Human Factors remain viable degrees? Should the degrees, and the students pursuing those degrees, continue to be housed in the Institute when the Institute has no tenure-system faculty?
- Is the Professional Pilot flight training program sufficiently connected to the core academic mission of the University? Should the Professional Pilot program continue to admit freshmen, therefore serving as a *de facto* general studies program for students interested in pilot training? Should campus resources, both direct and indirect, be used in support of this program or should it be designated as cost recovery?
- Are there opportunities to partner with Parkland College, which also offers pilot training ground school? Should the Institute of Aviation be discontinued?
- How would the changes in the Institute proposed through this process affect the long term stability of Willard Airport and/or commercial airline service at Willard Airport?

In conducting your review, we ask that your team devise a process that allows you to provide well-reasoned, comprehensive responses and recommendations on the key questions outlined above. It will be important for you to consult experts within the unit and related units, as well as internal and external stakeholders who will have valuable insights on the Institute of Aviation and its contributions to the campus and the broader community. Members of the Provost's office leadership team will also stand ready to assist you in this work, primarily Associate Provost Mike Andrechak (budget and finance), and Vice Provost Barbara Wilson (academic affairs).

We have invited Dean Wynne Korr to serve as the chair of your working team, and she has graciously agreed to do so. Staffing for your team's work will be provided by Dean Korr's office. We ask that you complete an initial written report summarizing your review by April 2, 2010.

We are deeply grateful for your time and expertise in this important review process, and look forward to your report and recommendations.

#### Sincerely,

Robert A. Easter Chancellor and Provost (Interim) Richard P. Wheeler Vice Chancellor for Academic Affairs (Interim)

c: M. Andrechak T. Emanuel B. Wilson

> 2 INSTITUTE OF AVIATION

### **II. COMMITTEE MEMBERSHIP**

Wynne Korr, Chair, School of Social Work Kanglin Chuang, Undergraduate Student Keith Marshall, Associate Provost Alison Schmulbach, College of Agriculture, Consumer and Environmental Sciences William Trent, Department of Educational Policy Studies Bruce Walden, Capital Programs and Real Estate Services Scott Walter, University Library Rayvon Fouche, Department of History (CAC liaison), *ex officio* 

#### **III. EXECUTIVE SUMMARY**

The Institute of Aviation at the University of Illinois at Urbana-Champaign has a long and rich history of providing a highly-regarded aviation education program and of conducting research that contributes to the advancement of aviation science and the enhancement of aviation safety. The Institute of Aviation Project Team was charged by the Office of the Chancellor and the Office of the Provost to review the effectiveness and efficiency of the current organization of the Institute and to consider whether the Institute remains sustainable in its current form from an economic standpoint and from the standpoint of its unique contributions to the core missions of the University.

To address these questions, the team engaged in a review of annual reports and other documentation of the efficiency and effectiveness of the Institute of Aviation, as currently composed, as well as a study of the relationship between Institute faculty, students, and programs, and complementary programs across the Urbana Campus. The team supplemented its review of annual reports, strategic plan proposals, enrollment data, and fiscal information available through units such as the Office of the Provost, the Office of Business and Financial Services, and the Division of Management Information, through personal interviews with Institute faculty, staff, students, and alumni, and through a site visit to the Institute in March 2010.

While the team was unable to come to an overarching conclusion regarding the long-term viability of the Institute of Aviation owing to the emergent status of key issues such as the decision to relocate tenure-system faculty currently associated with the Institute to other campus units and the willingness of Parkland College to consider assuming responsibility for the highly-regarded Professional Pilot program, several recommendations for future study and action may be made.

First, the future of the B.S. degree program in Human Factors must be tied closely to the question of the tenure home for the tenure-system faculty currently associated with the Institute of Aviation. Should the faculty be distributed to complementary academic units across campus, and should no academic unit with an appropriate number of tenure-system faculty make a commitment to supporting the ongoing administration of this program, including the recruitment, advising, and mentoring of undergraduate students, the Office of the Provost should give consideration to beginning the phased elimination of this degree program.

Second, the future of the M.S. degree program in Human Factors must be tied closely both to the question of the tenure home for the faculty currently associated with the Institute of Aviation and to the question of long-term financial sustainability. An existing suggestion that the M.S. program could be housed administratively in the Graduate College must be reviewed in order to confirm Graduate College ability to undertake the administration of the program, including the recruitment, advising, and mentoring of graduate students, the management of grievance and degree completion procedures, ongoing curriculum review, etc. Likewise, a financial plan for the enhancement of tuition revenues, management of tuition waivers, etc., must be designed, approved, and implemented in order to demonstrate the long-term sustainability of this degree program from a financial standpoint, especially should the administration of this program be divorced from that of the undergraduate programs currently associated with the Institute of Aviation. Should the Institute and the Graduate College prove unable to identify an acceptable approach to addressing these issues, the Office of the Provost should give consideration to beginning the phased elimination of this degree program.

Finally, the future of the Professional Pilot program must be tied to broader discussions of the place on the Urbana Campus of technical education not leading to the award of an undergraduate or graduate degree. While there is strong support for this program among its students, there are significant financial subsidies required by the high instructional and capital costs associated with this program. In the absence of a sustainable plan for financial support of this program, e.g., through the application of differential tuition or an increase in flight fees assessed to students, the Office of the Provost should consider other organizational models to support this program, e.g., through integration with a similarly-focused academic unit on campus, and should pursue active discussion with Parkland College regarding the potential for that institution to undertake responsibility for this highly-regarded aviation education program.

The report concludes with a brief summary of the issues related to the question of whether any decision to eliminate one or more of the academic programs currently associated with the Institute of Aviation will have a detrimental effect on the commitment to continued support of Willard Airport by the Federal Aviation Administration (FAA) and/or by airlines currently providing commercial service there.

### IV. COMMITTEE ACTIVITIES AND PROCESS

The Institute of Aviation Project Team was charged by Interim Chancellor and Provost Robert Easter and Interim Vice Chancellor for Academic Affairs Richard Wheeler on. February 19, 2010. The team was asked to address a series of questions related to the academic programs currently housed in the Institute of Aviation, and to review the sustainability of those programs. The charge letter to the committee was revised for membership on March 3, 2010.

#### Review of Prior Documentation

Prior to its initial meeting, team members reviewed documentation produced during earlier reviews of the Institute of Aviation, including that produced by the Aviation Task Group (1993) and the Blue Ribbon Committee on the Institute of Aviation (2007). Team members also reviewed the annual reports submitted by the Institute of Aviation to the Office of the Provost for fiscal years 2002 - 2009.

The project team made its best effort in the short review time period to contact, correspond, and meet with as many faculty members, instructors, and students as possible who are directly involved with the B.S. and M.S. degree programs administered through the Institute of Aviation. The responses to the request to meet with the review team were very high. Those that could not meet directly with the review team were able to communicate with the review team through a variety of familiar media. As a result, the review team gathered a rich set of commentaries on the past, present, and future of the Institute of Aviation. The review team first met with a small subset of flight and ground instructors, students enrolled in Aviation Human Factors degree program, and students participating in the Professional Pilot Certification program on March 9, 2010. A follow-up meeting of a larger group of interested parties took place on March 19, 2010. Meeting and email conversations were also arranged on a more individual basis with the faculty and graduate students that participate in the M.S. in Human Factors. When communicating with faculty, instructors, and students, the committee primarily focused on the first three questions of the charge letter.

#### Meeting Schedule

The Institute of Aviation Project Team met on the following dates: February 25th, March 1st, March 4th, March 9th, March 11th, March 16th, March 18th, March 30th, April 1st, April 6th, and April 8th. Team meetings focused on review of Institute issues, including applications to academic programs, student enrollment, curriculum, and financial planning. On March 9, 2010, the team toured the Institute of Aviation and met with a group of instructors, students, and administrators. The team also conducted discussions online through the course of March – April, 2010.

#### Review of Financial Information

During initial discussions, the team identified financial information that would be important in developing a response to the questions raised in the charge letter. In order to allow the team to assemble a comprehensive financial picture quickly, information was requested from the Office of Business and Financial Services (OBFS) and from administrative personnel in the Institute of Aviation. Information available from the Campus Profile maintained by the Division of Management Information (DMI) was also reviewed. Among the "financials" reviewed and discussed by the team were:

- Tuition Revenues
- GRF Appropriations
- ICR Funds
- Self-Supporting Funds
- Gift/Endowment Funds
- Grants and Contracts
- Plant Account Funds

Financial information available in these areas was reviewed for the period FY05 – FY10. Institute administrative personnel provided helpful clarification and explanation in several areas, including details regarding budgeted use of tuition/GRF funds by division within the Institute for the current fiscal year (FY10).

To provide context for discussion of tuition revenues in the Institute of Aviation, the team also gathered information on tuition and fees charged to students in other aviation programs, including those at Purdue, University of North Dakota, Southern Illinois University at Carbondale and Embry-Riddle Aeronautical University. Though time allowed only a cursory review, this effort provided the team with useful information related to revenue streams (tuition, flight fees, etc.) and organizational structure for aviation programs at other institutions of higher education.

To confirm understanding of current and historic financial information and to learn more about current Institute planning efforts relative to the immediate fiscal challenges to our campus for FY11 and beyond, the team developed additional questions for discussions with Institute administrative leadership. Among these questions were: plans for anticipated reduction of recurring state funds, potential for future, revenue-generating activities, impact of proposed changes to the campus budget model, and impact of planned relocation of Human Factors faculty to other campus units. Team members met with the Institute's Interim Director and chief fiscal officer to conduct this discussion and complete its review of current planning efforts in the Institute of Aviation.

#### Review of Faculty and Student Concerns

Following the initial meeting with instructors and students held at the Institute of Aviation on March 9<sup>th</sup>, team member Rayvon Fouche conducted follow-up discussions

with faculty, staff, and students currently affiliated with the Institute and/or its academic programs.

Team members also received a written response to the questions posed in the charge letter from Institute of Aviation Interim Director Tom Emanuel (Appendix).

#### Review of Potential Impact on Willard Airport

The team was unable to fully address the question of the potential impact of a substantive change to the academic programs housed in the Institute of Aviation on Willard Airport, but did review a number of relevant sources of information, including that made available by the Federal Aviation Administration (FAA) regarding tower classification, primary airport funding, and primary airport operations. Team members also conducted interviews with Willard Air Traffic Control Tower Chief Larry Wilcox, Institute of Aviation Interim Director Tom Emanuel, Douglas Gregory of Crawford, Murphy, & Tilly, Inc. (consulting engineers for Willard Airport), and Willard Airport Manager Steve Wanzek. Telephone queries were also made to other Central Illinois airports regarding tower operations, and with the FAA Control Tower Construction Unit (regarding planning for a new control tower to be constructed for Willard Airport).

#### Review of Public Concerns

Team members received hundreds of messages of support for the Institute of Aviation from alumni, former faculty, parents of current students, and members of the aviation industry. Team members also received a letter of support from the leadership of the Institute's alumni board, and a "Petition to Express Support" signed by 39 interested individuals (Appendix).

In sum, the members of the Institute of Aviation Project Team received information from a wide variety of sources as it addressed the questions posed in the charge letter from the Interim Chancellor and Provost and the Interim Vice Chancellor for Academic Affairs. Team members continuously reviewed information as it was received, and made use of electronic communication and face-to-face meetings to discuss what we had learned, to identify needs for additional information, and to come to consensus on the team's response to the questions posed in the charge letter.

### V. FINDINGS AND RECOMMENDATIONS

#### Introduction

The Institute has a long and rich history of educating excellent pilots and conducting research that enhances aviation safety. This section provides our approach to responding to the charge letter.

To address the questions, the Project Team felt it was necessary to explore key issues underlying the questions. These were:

How do you assess if a program is "sufficiently connected to the core academic mission of the University"?

Is the question regarding "viability" of a degree about assessing viability or about viability and sustainability into the future? What are the dimensions of "viability"?

We developed guides to help us answer these questions. These guides include:

- Given the breadth of the mission of our campus, can we look to the practices of peer institutions to make some judgments about centrality to mission? In what ways does the program reflect centrality to mission?
- What factors contribute to both short-term viability and longer-term sustainability?
  - Demand for the program and quality of the students
  - Faculty and student interest
  - o Enrollment
  - o Graduation rates
  - o Faculty size
  - Cost/GRF subsidy; ability to manage anticipated reduction/reallocations
  - Other benefits provided by the program or key relations to other institutions in the environment

#### Concerns

We will address each set of questions.

A. With the relocation of the Human Factors faculty to other units on campus, can the BS and MS in Human Factors remain viable degrees? Should the degrees, and the students pursuing those degrees, continue to be housed in the Institute when the Institute has no tenure-system faculty?

#### <u>Findings</u>

#### BS in Aviation Human Factors

The BS in Aviation Human Factors (AHF) is a four-year degree-granting curriculum created in 2000. According to the Institute's website, the AHF "prepares graduates to be productive members of the aviation industry by addressing the importance of human factors and cockpit resource (crew resource) training in the prevention of accidents and the enhancement of flight safety."

Students in AHF are admitted as freshmen or as transfers and complete their studies in four years in the Institute. Students complete the standard general education requirements, eight required flight instructions courses, and five human factors courses (three of which are cross-listed with Psychology). Students may also complete four optional flight instruction courses as part of the degree.

Demand for AHF has been declining.

Year	Applications
2004	78
2005	54
2006	49
2007	51
2008	44
2009	30
2010	49

Further, the quality of the applicants to AHF is below the campus averages for all applicants. Whereas the campus ACT average for all applicants is 28.3, Aviation students averaged 25.6 in 2010. ACT scores are, however, comparable to those of students in some other applied fields (Recreation, Sport, and Tourism – approx. 24; Human and Community Development – 24.8). The high school percentage rank for Aviation applicants was 72.0 compared to 81.8 for all applicants.

Total enrollments in AHF have mirrored the application trends.

Year	Enrollments
2004	189
2005	183
2006	164
2007	163
2008	140
2009	128

Some of the decline in enrollments in 2008 and 2009 can be attributed to an enrollment cap imposed by the Office of the Provost. With applications declining and quality

indicators lagging campus averages, the Office of the Provost, upon advice from the Office of Undergraduate Admissions, capped the enrollment to ensure the quality of the incoming freshman class.

#### MS in Human Factors

The MS program is relatively new, first enrolling students in 2004. In recent years they have enrolled 10-12 students (see Table below). They have awarded 10 degrees. They waive a significant portion of the tuition – approximately 85% in 2008. Of the waived tuition, roughly 23% was recovered through tuition remission. In the last several years all graduate programs have been asked to be sure they are obtaining tuition cost recovery when possible. The ability to waive tuition at a high rate implies some cross-subsidy of faculty costs for the MS by undergraduate tuition or GRF.

Year	Total enrollment	% internat'l	Degrees granted	Mean terms to degree	Grad tuition total	Grad tuition net
04	4	25%	-	-	54	0
05	6	17	-	5	77	11
06	8	13	1	7	111	40
07	10	50	3	4	172	60
08	12	67	3	4.5	203	28
09	11	55	3			

### Considerations involved in making recommendations

#### Centrality

Although the question of centrality to mission was not raised in this set of questions, we felt it needed to be considered. As we noted in the guidelines above, we looked at external and internal indicators of centrality. Only a small number of research intensive universities have aviation programs, most notably Purdue. The program at Purdue is located in the College of Technology, rather than as a free standing unit. We are the only program that offers a degree in Human Factors. More typically, degrees are offered in Aviation or Aviation Management.

Offering the Human Factors degree does make the BS program more typical of the approach taken to professional and technical education at Illinois, i.e. research-findings are clearly integrated into the teaching and practical aspects of the program. In addition, faculty research over the years has addressed significant problems in the field and makes notable contributions to aviation practices and policy. The comments of one alum reflect this contribution:

While a student at the Institute of Aviation, I received the education that allows me to be a leader in my field. I am currently employed as an airline pilot for XXX Airlines. In my time at the Institute I was able to participate in ground

breaking research, as a student I was a subject in numerous experiments that led to the FAA to change the certification process for an Instrument Pilot Rating. As an instructor we participated in research that made the FAA allow PCATD simulators to be used for instrument training. Also as an instructor I worked with Dr. Chris Wickens under a grant from NASA that helped get the Synthetic Vision System cockpit display system certified for use in aviation. Other experiments we participated in were for the department of defense that showed how many unmanned aerial vehicles (UAVs) a pilot could control. We furthered research in cockpit display setup and ways to reduce human error. We implemented the HFACS model for investigating aircraft accidents which the NTSB just now adopted and my own airline now just started teaching. As an instructor I helped 82 students receive some type of new license or rating.

The faculty, instructors, students, and alumni certainly perceive the Institute's teaching, research, and service to be critical assets to the university, the community, the state, and beyond.

#### **Viability**

The charge question refers to the "relocation" of the faculty. It is our understanding that the Senate has raised questions about the relocation of the faculty. Vice Chancellor Wheeler will be addressing a Senate committee on this topic after this report is submitted. We will address issues of viability both from the perspective of relocation and if the faculty had remained in the Institute.

Degree granting programs typically require two levels of faculty oversight and review (i.e., the department and the college). In the case of freestanding schools or institutes, a committee formed by the Provost's Office in conjunction with the Senate Educational Policy Committee serves as the second level of review. However, there is no substitute for the first level review of the department, school or institute's tenured faculty. Without sufficient tenure system faculty, a unit cannot house a degree granting curriculum. Therefore, should the Institute of Aviation find itself without tenure system faculty, the continuation of BS in Aviation Human Factors would be called into question unless another academic unit assumes responsibility for the program.

There are some examples of interdisciplinary undergraduate curricula without an associated faculty. For example, the Global Studies degree in LAS is not associated with any particular department, and there is no dedicated Global Studies faculty. However, the Global Studies curriculum is housed in a College with tenure system faculty. Further, the vast majority of courses included in the Global Studies curriculum are taught by LAS faculty, and the LAS administration is committed to ensuring proper staffing levels and faculty oversight of the program.

Even if the faculty had not been relocated, other questions concerning viability could be raised. The Institute had 4.5 faculty, two of whom do not yet have tenure. Is this number sufficient for sustaining the two degree programs? Do the faculty have a strong interest in

maintaining the programs? Clearly, the flight instructors and at least some of the faculty have that commitment.

The most important question regarding viability in our current environment is **fiscal**. The BS is one of the most expensive on campus because of the flight fees that are required in addition to the tuition. Under the budget allocations most recently supplied by the Provost's Office, now that more tuition has to be re-directed to cover campus overheads, the Institute is approximately 50% tuition/50% GRF supported (see information provided by M. Andrechak in Appendix). Prior to the current fiscal crisis, the Institute had sufficient resources and no operating deficit (see Appendix). In addition they have maintained an adequate fund for any contingent liability for aircraft replacement. The Institute has proposed ways in which they could enhance revenue and reduce expenses, especially in the face of the cuts.

In addition, it is not clear what the undergraduate budget model will be in the future. Therefore, it is not possible for the project team to reach a conclusion regarding the financial viability. Decisions about the fiscal viability of the program will have to be made after a complete understanding of the budget and budget model going forward is available.

#### Considerations specific to the MS program

The project team was informed that the faculty believe the program was already approved for continuation per an email from a staff member in the Provost's Office. Dean Korr and Keith Marshall discussed this email with VCAA Wheeler. The email noted that a program *could* be housed in the Graduate College. While that is correct, it still needs to have a structure for faculty review and approval of curriculum, admission and advisement of students, etc. In addition, given the amount of tuition currently waived, it would appear that the BS in essence has subsidized the MS program.

#### Recommendations

For the BS in Aviation Human Factors to remain a viable degree program it should be associated with tenure system faculty. In the event that the Institute no longer has tenure system faculty, the BS in Aviation Human Factors would need to be transferred to a college that is willing to fully support the program and its students, or the program would need to be terminated. Senate review would be required for any such transfer or termination. Even if the faculty remained in the Institute, the viability of a free-standing unit this small is questionable. A merger with a larger unit would be desirable. The BS program would have to have an acceptable financial plan for viability and sustainability under current budget constraints and approval by the Office of the Provost.

The MS in Human Factors (MSHF) faces similar issues. As a degree granting graduate program it must be aligned with tenure system faculty that can provide proper oversight of the curriculum and support of the students. One significant difference between undergraduate and graduate degrees is that the Graduate College may serve as the home

for interdisciplinary degree programs, should it choose to do so. For example, the Graduate College oversees interdisciplinary programs in nutrition, neuroscience, and bioinformatics. In each of these cases, there are numerous departments across campus interested in these programs, and the Graduate College serves as the administrative umbrella for the program and coordinates the oversight of the curriculum.

The MSHF could be administered in this fashion. From a statutory viewpoint, it would be considered a transfer of the degree from the Institute of Aviation to the Graduate College. Senate review would be required for such a transfer. While the Graduate College confers all degrees, the MSHF was approved in the Institute of Aviation with the Graduate College providing second level oversight. For the Graduate College to assume administration of the MSHF it would need to establish methods for handling the operations normally performed by the academic department, namely creating an interdisciplinary curriculum review committee, a processes for admitting students, advising/mentoring students, reviewing petitions, hearing grievances, etc. A plan for financial viability of the MS would have to be developed, perhaps along the lines of the professional sciences masters programs.

B. Is the Professional Pilot flight training program sufficiently connected to the core academic mission of the University? Should the Professional Pilot program continue to admit freshmen, therefore serving as a de facto general studies program for students interested in pilot training? Should campus resources, both direct and indirect, be used in support of this program or should it be designated as cost recovery?

#### **Findings**

The Professional Pilot Curriculum (Pro Pilot) is a two year curriculum that does not lead to the awarding of a degree. According to the Institute's student handbook, the Pro Pilot program allows students to earn a "degree in a secondary area of interest plus as many FAA flight certificates as you choose". Further, it provides a "back-up area of expertise should health not allow FAA certification in subsequent years." (page 9)

Students are typically admitted into Pro Pilot as freshmen or as transfer students with less than 60 hours and remain in the program for two years before transferring to a degreegranting program in another college. Popular majors for Pro Pilot students include aerospace engineering and psychology.

An example of the value of the Pro Pilot program as perceived by a parent reflects the potential for having this curriculum:

I thought it might be helpful for me to provide one perspective on the value of a joint program between Aerospace Engineering and the Institute of Aviation. While my son, XXX, was an Aerospace Engineering undergrad, he also completed (one additional semester) the flight, instrument, multiengine, and instructor training at the Institute. This has proved to be an invaluable combination for him, making him unique (esp. then) from most other Aero majors from across the country. When he graduated with his BS in 2004, Boeing and Lockheed were both wooing him for projects that required both a pilot's knowledge as well as the engineering. He went to work on a special project for Boeing, came back to UIUC to complete his MS and just this week, his Ph.D. in Aerospace, but was an instructor at the Institute the entire time. Again, this fall he had multiple companies, institutions, and government agencies contacting him for interviews. His knowledge as a pilot was an imbedded/important part of his dissertation research. He accepted last fall a position at AAA university/BBB Laboratory (high security fed research lab at AAA) to develop a new air traffic control system. Obviously, his combination of engineering and pilot training was important for this position.

Students in the Pro Pilot program take six flight instruction courses, the majority of their general education requirements, and any prerequisites for transferring into the intended major. In many ways it mirrors the curriculum and mechanisms of the Division of General Studies.

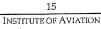
The Pro Pilot curriculum has a long history at the Institute and was the only option for students prior to the implementation of the BS in Aviation Human Factors in 2000. Demand for the Pro Pilot curriculum has fluctuated in recent years but appears to have declined significantly in the past two years.

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Year	Applications
2004	91
2005	102
2006	137
2007	80
2008	122
2009	67
2010	69

The quality of the applicants to the Pro Pilot curriculum lags somewhat behind the campus averages for all applicants. Whereas the campus ACT average for all applicants is 28.3, Pro Pilot applicants averaged 26.8 in 2010. The high school percentage rank for Pro Pilot applicants was 72.5 compared to 81.8 for all applicants.

Total enrollments in the Pro Pilot curriculum have mirrored the application trends.

Year	Enrollments
2004	65
2005	72
2006	92
2007	64
2008	56
2009	36



It should be noted that some of the decline in enrollments in 2008 and 2009 can be attributed to an enrollment cap imposed by the Office of the Provost. With applications declining and quality indicators lagging campus averages, the Office of the Provost, upon advice from the Office of Undergraduate Admissions, capped enrollments to ensure the quality of the incoming freshman class.

#### Considerations involved in making recommendations

The same discussion regarding centrality as made with the HF degree programs can be made with the Pro Pilot program. As an option for students majoring in another program such as aeronautical engineering, it certainly provides a benefit.

As for viability, the actual total cost to a student of making this a cost recovery program need to be determined to see if students could afford the training on this basis and to see if it is competitive with what might be available in the private market.

#### Recommendations

We could not fully respond to the question regarding continued admission of freshmen. We could not determine if sufficient demand for the program would remain if students were admitted directly to another degree program or DGS and took Pro Pilot courses as a second curriculum. The program would need to attract students committed to other degrees in addition to Human Factors. If the faculty are relocated, the question of curriculum oversight needs to be addressed. General organizational/fiscal oversight also needs to be addressed if there are significant changes to the Institute's structure.

We also recommend continuing to explore possibilities of a partnership with Parkland (see below).

As noted above, a full cost recovery model would be preferable but may not be competitive.

C. Are there opportunities to partner with Parkland College, which also offers pilot training ground school? Should the Institute of Aviation be discontinued?

The Office of the Provost has engaged the Parkland administration in such discussions and kept the Project Team apprised of their progress. Given the complexity and long timeline of such discussions, the Project Team determined that it could not fully address this question within our short timeframe.

However, the Project Team would like to make several observations about the possibility of a partnership. First, the Professional Pilot curriculum appears in many ways to be an excellent fit with a community college such as Parkland: it focuses exclusively on the first two years of the college experience; students complete general education courses and prerequisites for their intended major; and the specialized flight training is fairly technical in nature. Second, Parkland's dramatically lower tuition for general education courses would allow them to charge more for the flight training components, thus making the program fully cost recovery while still keeping the total cost of attendance lower for students. Third, the recent development of the Parkland Pathways program would allow for students to begin at Parkland in the Pro Pilot curriculum, maintain a relationship with Illinois while at Parkland, and then transfer seamlessly into their intended major at Illinois upon completion of the associate's degree. Potential problems identified include whether students from more distant communities would choose to begin at Parkland and the availability of these courses to students enrolled first at Illinois, e.g. in aeronautical engineering.

In short, we believe there is potential in a partnership with Parkland College on the Pro Pilot curriculum, and we encourage the Office of the Provost to continue exploring those options.

The team is unable to provide an overarching recommendation on the question of the discontinuation of the Institute of Aviation owing to two key issues that remain unresolved as this report is being completed: 1) the status of the tenure-system faculty currently associated with the Institute; and 2) the interest on the part of Parkland College in assuming responsibility for the Professional Pilot program.

Should the tenure-system faculty currently associated with the Institute be relocated to new tenure homes and should Parkland College assume responsibility for the Professional Pilot program, it appears that the contributions made by the Institute of Aviation to the core missions of teaching, research, and service at the University of Illinois at Urbana-Champaign will become the responsibility of other campus units (or, in the case of Pro Pilot, of another institution). In such a situation, it would be logical to eliminate the Institute as a free-standing academic and administrative unit.

In the near term, the Institute needs an academic and administrative home if it is not deemed possible to continue as free standing.

D. How would the changes in the Institute proposed through this process affect the longterm stability of Willard Airport and/or commercial airline service at Willard Airport?

In order to address this question the Task Force made the assumption that the "changes proposed" phrase in the above question may include the elimination or significant reduction in students participating in the Professional Pilot Training Program at Willard Airport alone or as part of the BS in Human Factors. Irrespective of decisions related to the degree program, it is the actual flight training activity which most directly impacts Willard Airport operations. In particular, it is student aircraft operations (take offs and landings) which contribute to the various metrics for which the commercial airport is staffed and equipped.

# The following sub-questions were formulated and addressed by the Task Force:

# **D.1.** Will a reduction in take offs and landings associated with the Institute of Aviation Flight School also reduce Federal AIP funding for Willard Airport?

No. Based upon the published FAA (Federal Aviation Administration) formula for funding Primary Airports through the Airport Improvement Program (AIP) entitlement program, only commercial enplanements are calculated in the formula. Willard is one of ten Primary Airports in Illinois which support scheduled passenger air service. Willard receives approximately \$1,300,000 per year in AIP grants to maintain runways, taxiways and field avionics based on annual commercial enplanements of approximately 98,000 passengers. The minimum number of passenger enplanements required in order to receive the base \$1,000,000 AIP grant for a Primary Airport is 10,000 enplanements. It is worth noting that the annual AIP dollars do support the Institute of Aviation by maintaining and replacing all "field" side plane parking and ramp areas.

# **D.2.** Are Institute of Aviation aircraft operations directly related to the level of service provided to Willard airport via the FAA operated control tower?

Yes. Willard airport is served by an air traffic control tower which is funded and staffed by the FAA. In the case of Willard, the control tower also serves as a radar control facility handling airspace traffic within a defined region. The control tower facilities receive classifications based on an Hourly Classification Index or CI value (Air Traffic Control Series ATC-2152 Terminal and En Route published by FAA date January 12, 1999, as amended). The CI value is based on air traffic volumes, runway configurations, aircraft fleet mix, radar facilities, visual and instrument traffic volumes and other related factors. Willard has a CI value range between 140 and 214.9 resulting in a class 7 control tower. Control tower facilities are classified 4 through 12. The Willard control tower is presently considered, in FAA parlance, "under buffer zone" review due to a drop in flight operations over the last couple of years. This situation is not uncommon given the economy and the downsizing in the aviation industry. The "under buffer zone" terminology is used to identify a control tower that may be lowered in classification. According to Champaign tower Chief Larry Wixom, other central Illinois airports are also classified in this manner and are under review. The following chart compares central Illinois airports based on control tower aircraft operations, hours of service and activity.

Airport	Enplanements (2008)	# of Daily Departures (Commercial Flights)	Total Aircraft Operations (2009)	Existing Tower Hours	ATCT Classification
Champaign	98,243	9	85,317	6am - 10pm	Level 7
Bloomington	262,840	14	27,975	6am - 11pm	Level 0 (Contract)
Peoria	278,426	18	41,450	24 hours	Level 6
Springfield	56,786	6	29,959	6am - 10pm	Level 6

Notes: See Process section for data sources

1. Number of daily flights is approximate. Some airports are not served daily by providers (i.e. Allegiant @ PIA). Only accounted for departures that occur during the week.

2. Enplanements based on latest data available from FAA records (2008)

3. Level O (Contract) – i.e. not staffed by FAA employees

As indicated by the above data, Willard has a large number of aircraft operations compared to other nearby airports. While a detailed analysis of flights by type was not studied or quantified, it is apparent the vast majority of total aircraft operations, perhaps as much as 80%, result from the Professional Pilot Program. From the above data it is likely that without the Institute of Aviation flight operations, CMI metrics would look similar to the Springfield Airport. Springfield Airport is a level 6 ATCT under "buffer zone" review.

# **D.3.** Will the FAA build a new control tower if the flight operations at the Institute of Aviation are discontinued or reduced?

Undetermined. Recently, the FAA announced a schedule to build a new control tower at Willard Airport. A complicating factor in this announcement is the FAA plan to relocate the regional air traffic control radar services from Willard to Elgin, Illinois, as a part of that project. This service is a factor that contributes to the control tower classification formula. Interestingly, however, the FAA has only 3 categories of towers in terms of construction scope-- small, medium, and large. Willard is in the small category, irrespective, of the service classification range of 5 to 7. The FAA construction schedule is as follows according to Darren Brinker of the FAA Terminal Engineering Center in Kansas City:

January 2010	Project approval and validation completed by FAA
March 2010	Engineering funding allocated and A&E selection advertised
June 2010	A&E selection
May 2011	Design completion
June 2011	Project construction procurement
a : 0010	

Spring 2012 Construction

# **D.4.** Would the loss of the flight school and potential reduction in control tower services cause airlines to leave Willard?

Unlikely. The key issue is control tower hours of operation. As long as the Willard control tower, regardless of classification, operates in a manner similar to other central Illinois airports with hours to accommodate commercial traffic then commercial flights will not likely be impacted.

# **D.5.** Would the elimination or reduction in flight training operations impact the ability to acquire a second Instrument Landing System (ILS) at Willard?

Undetermined. Willard airport has made a request in its annual Transportation Improvement Plan to install a second ILS system. This has been identified as the top capital project for the airport. Willard is the only primary airport in Illinois with only one ILS. This situation contributes to commercial airline delays and canceled flights when the weather is not optimal for the existing facilities. The airport recently procured and presented to the FAA a study entitled "Benefit Cost Analysis ( BCA) University of Illinois Willard Airport Runway 14 L September 2009" prepared by Crawford, Murphy and Tilley. In that study, flight training operations were included in the rationale to justify in part the second ILS. The FAA provides guidance on how to determine the BCA for such avionic installations. The criteria focus on safety and commercial airline costs of delay, diverted or canceled flights. While the student flight operations contribute to the argument for a second ILS, the training flights are not typically considered in the FAA review of the BCA analysis, according to Douglas Gregory of Crawford Murphy and Tilley.

# **D.6.** What are the financial and economic impacts upon Willard Airport, Flightstar and the community if the Institute of Aviation ceases operations?

Negative. The Airport and the Institute share funding support for 5 positions, totaling 1.36 FTE and \$81,700. If changes are made to Institute staffing, the campus and the Airport would have to address the impact on the shared staffing. Additionally, a portion of the salaries paid to Airport mechanics is from the Institute on a work order re-imbursement basis.

In regard to Flightstar, the Airport Fixed Based Operator (FBO), the direct impact would be the elimination of the fueling and other aircraft "line" operations contract. This contract totals approximately \$104,000 annually. Indirect impacts of the loss of the Institute on pilot recruitment and other factors related to the FBO are more difficult to quantify.

The economic impact in regard to the loss of jobs and economic activity on the community is both direct and indirect. Direct impacts can be measured in job loss and payroll. Indirect impacts are measured by the multiplier effect of payroll and other financial activity associated with Institute expenditures in the local economy. The

Project Team did not review this issue in detail, although it may be of considerable interest to the community at large and decision makers.

The Project Team was also made aware that the local community has formed a group to review Willard Airport governance which is sponsored and staffed through the Champaign County Economic Development Corporation. The focus of that group is to make a recommendation on the future governance structure of Willard Airport and in particular alternatives to university management.

## VI. ATTACHMENTS