

IOWA STATE UNIVERSITY

Office of Internal Audit

ISU Flight Service and University Owned Aircraft

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Board of Regents, State of Iowa

Office of Auditor of State

ISU Flight Service and University Owned Aircraft

BACKGROUND

Iowa State University (ISU) Flight Service offers air transportation to any airport in the continental United States served by commercial airlines plus thousands of airports utilized by general aviation aircraft. Flight Service is located beside the ISU Research Park at the Ames Municipal Airport and is a fee-for-service unit within Facilities Planning and Management. The unit employs a Manager, who is on phased retirement and two full-time pilots. Flight Service operates two planes: a Beechcraft King Air 350, a twin engine turbo propeller with an air-conditioned and pressurized cabin that seats up to nine passengers, and a Cirrus SR22, a single-engine four-seat aircraft.

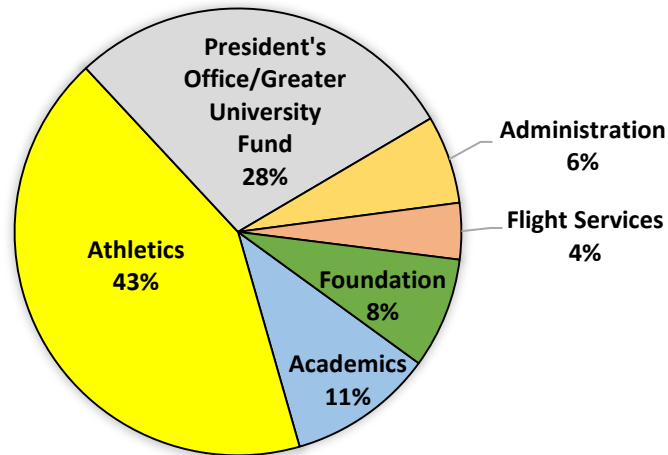
Four university-owned aircraft have been in service since the February 2012 installation of the current University President: the Piper Warrior, Cirrus SR22, Beechcraft King Air 200, and Beechcraft King Air 350.

Aircraft	Dates Since University President Installation
Beechcraft King Air 200	February 2012 – April 2014
Beechcraft King Air 350	April 2014 – Present
Piper Warrior	February 2012 – July 2014
Cirrus SR22	July 2014 – Present

The purchase of the King Air 350 was managed by the ISU Foundation. The plane was purchased in full using unrestricted Athletics Department funds which were held and managed by the ISU Foundation. The purchase price was \$2,875,000 and the title was transferred directly to ISU. Net proceeds totaling \$776,053 from the sale of the university-owned King Air 200 were credited to the Athletics Department account at the ISU Foundation to offset the costs of the King Air 350. The combined cost of the King Air 350 recorded in the university's internal inventory records is \$3,533,429. This includes the cost of the aircraft, escrow fee, upgrades, and acquisition and legal fees. The Cirrus was purchased for \$498,000 by ISU using unrestricted funds provided by the ISU Foundation and trading in the Piper, which was valued at \$28,000.

For the time period of January 2012 through October 2016, the two King Air planes were flown a total of approximately 348,000 miles. The percentage of flight miles by user is reflected in the following chart:

KING AIR FLIGHT MILES % OF USERS



For the time period of August 2014 through September 2016, 76 trips on the Cirrus were identified. The University President was the pilot or a passenger on 72 of those trips. The business purpose as reported by the University President for 52 of the 72 trips was proficiency/training or certification in the Cirrus.

Flight Service is a fee-for-service unit and does not depend on external funding to operate. Total revenues have grown at an average of 17% per year since fiscal year (FY) 2012, while total expenses have grown at an average of 23% per year over the same period. Salary expenses and associated benefit costs have remained relatively stable at 30% to 40% of total revenues in each of the past five fiscal years. Increases to salaries, wages and benefits in FY 2016 reflect the employment of an additional staff member.

Flight Services Financial Summary - Past 5 Years

	<u>FY2012</u>	<u>FY2013</u>	<u>FY2014</u>	<u>FY2015</u>	<u>FY2016</u>
Beginning Balance	\$ 20,092	80,047	98,081	67,660	50,953
Revenues					
Contributions from Partners & Billings	448,558	515,543	498,240	596,624	828,560
Hangar Income	5,180	4,500	15,750	16,640	8,400
President Leath - Cirrus Use	-	-	-	1,213	2,263
President's Office - Operational Costs Warrior/Cirrus	-	-	10,000	25,000	-
Total Revenues	<u>453,738</u>	<u>520,043</u>	<u>523,990</u>	<u>639,477</u>	<u>839,222</u>
Expenses					
Salaries, Wages & Benefits	175,837	180,442	185,645	198,374	310,462
Travel & Seminars	7,003	15,404	10,194	5,118	12,916
IT & Telecommunications	4,355	5,153	2,331	3,609	6,349
Hospitality	5,490	6,631	10,206	8,539	18,648
Subscriptions	6,126	5,150	12,737	43,605	37,737
Insurance	-	38,990	38,991	66,554	55,692
Equipment, Supplies, Repairs & Maintenance	86,896	126,958	161,870	165,852	226,803
Fuel	86,537	76,299	123,021	149,308	148,949
Miscellaneous & Others	21,540	46,983	9,415	15,225	63,028
Total Expenses	<u>393,783</u>	<u>502,010</u>	<u>554,411</u>	<u>656,184</u>	<u>880,584</u>
Balance Year End	<u>\$ 80,047</u>	<u>98,081</u>	<u>67,660</u>	<u>50,953</u>	<u>9,591</u>

PURPOSE AND SCOPE

Observations and recommendations from Internal Audit’s review of travel policies and the use of state equipment were presented to the Board of Regents, State of Iowa (Board) in October 2016. The Audit/Compliance and Investment Committee of the Board then requested that Internal Audit perform a more comprehensive audit of Flight Service and the usage of university-owned aircraft since the installation of the University President in February 2012. Specific objectives and testing are noted below in detail.

To identify a comprehensive record of flights on university-owned aircraft, Internal Audit obtained flight records from ISU Flight Service and FlightAware (a flight tracking data company), analyzed purchasing card data for all Flight Service cardholders, observed pilot logs for the University President, Flight Service Manager, and the two full-time Flight Service pilots, reviewed maintenance logs, and scanned fuel logs provided by the Ames Municipal Airport Fixed Base Operator.

Flight Service did not retain any flight records for the Piper and the maintenance logs were included with the plane when it was sold. FlightAware was able to provide some flight records on the Piper during the February 2012 through July 2014 timeframe. Similar to the Piper, maintenance logs for the King Air 200 went with the aircraft when it was sold. Flight Service and FlightAware were able to provide flight records for the King Air 200. The maintenance logs for the Cirrus were provided by Flight Service. Flight Service did not maintain flight records for the Cirrus. Therefore, the flight records provided by FlightAware were relied upon for the Cirrus, however, these records may not have identified all flights in the Cirrus and do not identify passengers. Based on the manner in which the aircraft was flown, FlightAware may not have been able to track all flights. When an aircraft is flown using instrumentation flight rules, the aircraft is directed by air traffic control, so FlightAware likely has a record of the flight. When an aircraft is flown using visualization flight rules, there is no contact with air traffic control and there may not be a record of the flight available. FlightAware may not have captured flights in the Cirrus when it was flown using visualization flight rules. The pilot was determined by reviewing individual pilot logs. Flight Service and FlightAware were able to provide flight records for the King Air 350. The King Air 350 is mainly flown using instrumentation flight rules. The flight records for university-owned aircraft were analyzed to understand the frequency and nature of plane use. The following table summarizes trips billed to each user by the aircraft flown:

Number of Trips per User Billed by Aircraft

	Cirrus SR22	King Air 200	King Air 350	Total
Athletics		50	84	134
President’s Office/Greater University Fund	72	41	79	192
ISU Foundation		21	24	45
Academics		16	35	51
Other	4	50	80	134
Total	76	178	302	556

Additional work was completed to determine the offices involved in the business decision not to file an insurance claim regarding the July 2015 hard landing in the Cirrus. Research was completed to determine if it was necessary to provide any additional insurance disclosures regarding the University President’s hard landing in August 2014, which was not in a university-owned aircraft.

Interviews were conducted with Flight Service personnel to fully understand the unit’s operational processes. Policies, procedures, and guidelines, the reservation process, flight service rate calculations and billing practices, and retention of flight records were all reviewed.

DISCUSSION AND AUDIT RECOMMENDATIONS

1) Flight Record Review

After reviewing Flight Service and FlightAware flight records, pilot logs, maintenance records, and purchasing card purchases, flights on which the University President was the pilot or a passenger were identified and a business purpose for the trip was obtained. In total, the business purpose for 181 trips was obtained.

Trips Per Aircraft with University President

Cirrus SR22	72
King Air 200	44
King Air 350	65
Total	181

Analysis of passenger lists provided by Flight Service for the King Air 200 showed the University President as the only passenger on 12 of the 44 trips. On another five of the 44 trips the only passengers were the University President and his spouse. An additional trip included the University President, his spouse, and other family members. Analysis of the passenger lists of the King Air 350 showed the University President as the only passenger on nine of the 65 trips. An additional 17 trips included the University President and his spouse as the only passengers.

For 62 trips that noted the business purpose as donor relations/outreach, donor records maintained by the ISU Foundation were reviewed. Records varied in detail and for some trips the records provided details of the actual visit, for others it only included information prepared for the visit, but no record of the actual visit, and for others it may have only included evidence the Foundation was aware of the individual being visited. For 38 of the trips, the trip was confirmed with details of the visit or details prepared in advance of the visit. There were 17 trips in which the records from the Foundation only provided evidence the Foundation was aware of the individual, but no records could be provided specific to the trip in question. Of those 17 trips, one trip had an ISU business purpose in addition to the donor relations/outreach component.

There were seven trips in which the ISU Foundation did not have any records. Four of those trips were identified as sporting events in which the University President would have a business purpose to attend the event regardless of meetings with donors. The three remaining trips could not be validated by ISU Foundation records.

Internal Audit obtained additional details for the four trips the University President took to North Carolina on the Cirrus in which the trips had a combination of university and personal business. The following details were obtained:

- March 25–29, 2015 – The University President met with an individual who is providing assistance in ISU’s efforts to become involved in the Boone and Crockett Club University Program. The Boone and Crockett Club University Program is designed to provide science-based knowledge from seasoned wildlife professionals and educators to college graduates in the wildlife field to better prepare the graduates for the responsible and wise management of wildlife in the future. Currently there are four Boone and Crockett Club University Programs: the University of Montana, Texas A&M University, Oregon State University, and Michigan State University. The Natural Resource Ecology and Management Department is developing a proposal for an Iowa State Boone and Crockett Professorship.
- May 12–17, 2015 – There were multiple contacts with strategic institutional leaders, specifically, University of North Carolina MBA faculty.
- July 3–14, 2015 – The University President met with an individual who has been providing assistance regarding the development and expansion of the ISU Research Park.
- August 26–30, 2016 – The University President was scheduled to meet with the same individual from the July 3–14, 2015 meeting. The meeting was cancelled by the donor. Internal Audit viewed a written communication exchange between the donor and the University President noting the meeting was cancelled by the donor on the date of the scheduled meeting.

In March 2014, the university aircraft stopped in Elmira, NY en route to the NCAA basketball tournament. During the stop in Elmira, the University President’s brother and sister-in-law boarded the aircraft. Flight Service scheduled a refueling stop in Elmira in advance of the trip. A return stop in Elmira would not have been necessary other than to drop off passengers.

Between May 2013 and August 2016, a university-owned aircraft or university resources were utilized to transport the University President to Rochester, MN seven times. The University President stated that on three occasions the sole purpose of the trip was a medical appointment, but the use of Flight Service was necessary for him to return to campus to meet university obligations. The University President’s employment contract does not address the necessity or requirement for an annual physical, nor does it address whether any associated travel expenses would be covered by the university for medical appointments.

To identify potential instances in which the University President was flown to the Des Moines International Airport for the purpose of boarding a commercial flight, the commercial airfare records for the University President were reviewed and compared to Flight Service and FlightAware flight records. Internal Audit only identified one instance in February 2016 where the University President had commercial airfare out of Des Moines booked on the same day there was a flight in a university-owned aircraft to Des Moines.

On two occasions, in June 2015 and June 2016, a private aircraft was chartered as a result of delayed or cancelled commercial flights out of Washington, D.C. Through historical flight data, Internal Audit confirmed that in June 2015, the University President's commercial flight was delayed and would have resulted in him missing his connecting flight and in June 2016 the University President's commercial flight was canceled. In June 2015 the charter flew the University President and in June 2016 the charter flew the University President and his son. Internal Audit confirmed no additional cost was incurred for the additional passenger. The total cost for these two chartered flights was \$25,561.

Two other instances were identified in which a private aircraft was chartered. In July 2014, the University President and four other passengers were flown to Moline, IL to attend a meeting of the Cultivation Corridor Board of Directors. In November 2015, the University President and three passengers were flown to Sioux Falls, SD to attend the ISU Men's Basketball game against the University of Colorado. The total amount for these two chartered flights was \$9,231.

Also, there were five instances in which an aircraft was rented from Haverkamp Properties between February 2012 and July 2014. The rental was for university business and the total cost was \$3,192.

Audit Recommendation – The Board should determine which travel expenses, if any, are appropriate for the University President to be reimbursed for when pursuing medical care. If it is deemed unallowable, the University President should reimburse the university for expenses paid, and if deemed allowable the specifics should be added to the University President's employment contract to clearly state the expectations of the Board.

The Board should authorize the Executive Director to review other highlighted flights to determine the appropriateness or reasonableness of the flights and seek additional reimbursements if the costs are deemed excessive or inappropriate. The Board President and/or Executive Director should periodically post review each of the University President's travel to provide adequate governance oversight.

The Board should also consider developing a policy with guidelines regarding the use of chartered aircraft.

2) King Air 200 Sale

It was previously reported by Internal Audit that the King Air 200 was transferred to the ISU Foundation to be sold. In actuality, the aircraft title did not transfer to the ISU Foundation. The King Air 200 was sold and the net proceeds from the sale were wired directly to the ISU

Foundation and were credited to the unrestricted Athletics Department account used to purchase the King Air 350.

3) Insurance Policies

In July 2015, the Cirrus sustained approximately \$14,000 in damages during a hard landing while being piloted by the University President. The ISU Office of Risk Management was not notified at the time of the hard landing. If the Office of Risk Management had been informed, the insurance carrier would have been notified immediately to record the date of the event, regardless of whether an insurance claim was to be filed. The Office of Risk Management was also not consulted or involved in the decision to not file an insurance claim regarding the damages sustained. The business reason provided for not filing the claim was that it was less expensive to absorb the costs rather than risk insurance premium rates increasing. However, there was no supporting documentation provided to detail the cost analysis to justify the business decision.

ISU's Insurance, Buildings and Property policy states, "*all losses or damage to university property must be reported to the Office of Risk Management.*"

Audit Recommendation – The Office of Risk Management should be contacted when university property is damaged and consulted as part of any analysis as to whether or not an insurance claim should be filed. Final decisions should be documented along with the calculations of the business case to support those decisions.

4) Insurance Incident Disclosures

The University President has been insured to fly the Cirrus under successive corporate aircraft policies since July 2014. ISU switched insurance providers from State National to Catlin for university aircraft in February 2016, as Catlin offered a lower premium with better coverage.

The pilot history form completed by the University President in February 2015 as part of the insurance coverage renewal included details of a hard landing in August 2014. Subsequently, the same form completed again in February 2016 included details of a hard landing in July 2015 but not the hard landing in August 2014. The underwriter for Catlin reviewed the forms for both years and confirmed there is no problem with the information provided on these forms and the carrier would continue to provide aviation insurance for the University President as a pilot if asked to do so.

5) Cirrus Funding and Usage

The Cirrus is funded completely by an annual charge to the President's Office, as the Cirrus is primarily utilized by the University President. For the time period of August 2014 through September 2016, there were 76 trips identified on the Cirrus. The University President was the pilot or a passenger on 72 of those trips. The business purpose for 52 of the 72 trips was proficiency/training or certification in the Cirrus. Internal Audit did not determine the reasonableness of the number of proficiency/training flights taken.

In FY 2015, the President's Office was billed using an estimated rate of \$250 per flight hour and an estimate for 100 hours of flight time. In FY 2016 the intention was to bill the President's

Office for all actual fixed and variable costs. A preliminary calculation of costs has been determined by Flight Service as \$21,741, but the billing and transfer of funds has not been completed. Internal Audit did review the Cirrus-related fixed and variable expenses in the Flight Service fund account and determined the calculated amount of \$21,741 to be reasonable.

The University President personally reimbursed the university at a rate of \$125 per flight hour for Cirrus usage on four separate occasions where there was a combination of business and personal travel. In total, during FYs 2015–2017, the University President reimbursed \$4,637 for Cirrus usage. The rate of \$125 was calculated by Flight Service and was based on the variable cost of operating the Cirrus. The fixed and variable cost of operating the Cirrus is approximately \$265 per hour. Flight Service was able to provide documentation of the calculated rate.

Audit Recommendation – Flight Service should confirm the calculation of total costs for the Cirrus and bill the President’s Office accordingly for FY 2016.

6) King Air 350 Billing and Rate Calculation

The King Air 350 is funded by a combination of payments from three partners and additional mileage charges to the partners and other campus users. The three university partners are Iowa State Athletics, Office of the President, and ISU Foundation. In total, \$336,175 was collected in partnership fees and \$442,307 was collected in mileage charges for the King Air 350 during FY 2016. Individual partnership fees reflect expected use of the King Air 350 in the fiscal year ahead and are determined by apportioning the projected fixed costs in the Flight Service budget for the fiscal year ahead among partners. The projected fixed costs for the year ahead is estimated based on a rolling average of the fixed costs in the previous three years while partnership fees are apportioned in line with each partner’s three-year rolling average billings for flight mileage as a percentage of total billings. However, this billing methodology has not been accurately applied in recent years and Flight Service received a total of \$67,098 more than was owed in partnership fees between FY 2014 and FY 2016.

Beechcraft King Air 350 Funding

<u>Sponsorship Payments</u>	<u>FY2014</u>	<u>FY2015</u>	<u>FY2016</u>
Athletics	\$ 140,915	147,452	147,452
President	51,998	27,205	108,820
Foundation	76,361	79,903	79,903
Partner Contributions	269,274	254,560	336,175
<u>Mileage Charges</u>			
Athletic Department	113,147	146,086	239,674
President's Office	63,314	122,395	144,584
Foundation	23,626	27,250	20,873
All Others	28,784	46,333	37,176
Total Mileage Charges	228,870	342,064	442,307
Maintenance Contributions	-	-	50,078
Total Funding of King Air 350	\$ 498,144	596,624	828,560

Partners are charged a rate of \$4.52 per nautical mile flown. Meanwhile, university non-partners are charged a higher rate of \$6.00 per nautical mile flown. The partnership and non-partnership rates approximate the average variable and average total cost of aircraft operations respectively. Athletics is the principal user of the King Air 350, paying approximately 50% of the total funding over the past three fiscal years. The President's Office is the next largest user followed by the ISU Foundation. A number of other departments utilized the aircraft for various academic and research activities.

Audit Recommendation – Individual partnership fees should be calculated and announced in a timely manner to the Facilities Planning and Management's Accounting Department, which in turn should ensure billings are processed based on these new amounts semi-annually. A shorter and more routine billing cycle will aid in more accurate billing and reduce the likelihood of variances. Billed amounts should be reconciled to total receipts at year-end to ensure Flight Service has recouped the appropriate funds from all internal customers.

7) Billing Errors

Flight Service has not consistently billed partner and non-partner customers the appropriate amounts for the usage of university aircraft and multiple errors were identified in the calculation of customer billings. Billing information was analyzed for the time period of April 2014 through August 2016. Errors were noted in which Flight Service did not bill for all legs of a trip, underbilled non-partners, and overbilled partners, resulting in Flight Service not fully recapturing the cost of all flights.

Audit Recommendation – Flight Service should improve the billing process by reviewing bills prior to sending to customers to ensure the bills are consistently accurate and based on the rate schedule of the appropriate customer group (partner vs. non-partner). In situations in which a customer is charged a rate other than the standard rate per nautical mile, the explanation for the rate used should be documented and maintained by Flight Service.

8) Flight Records

Flight Service does not maintain a comprehensive log of all flights on the Cirrus. Flight records are maintained for the King Air 350, but the records lack necessary details, such as business purpose. There is no record retention policy regarding flight logs. Also, at times, passengers are listed on legs of flights for billing purposes, but the passengers are not actually on the aircraft. In one instance a passenger was identified as being on a flight but was not listed on the passenger list. A comprehensive log of all flights for both university-owned aircraft would document and substantiate aircraft usage, nature of flights, and support billings, if questioned by stakeholders.

Audit Recommendation – A comprehensive log of all flights should be maintained for both university-owned aircraft. The flight logs should include the following details: pilot identification, trip date, trip legs, airport of departure, airport of arrival, departure time, arrival time, miles flown, business purpose, passengers, total expenses, and any other details deemed necessary by university management. The passenger lists should accurately reflect individuals on all legs of flights. A record retention policy should be put into place for the flight records and the records should be maintained and purged in accordance with the policy.

9) University-Owned Aircraft Policy

ISU does not have a policy governing university-owned aircraft usage which should address:

- Scheduling
- Minimum aircraft requirements (including charters and donor provided aircraft)
- Pilot requirements
- Maintenance requirements
- Authorized users
- A statement indicating aircraft may be booked only for the official university business of authorized faculty and staff
- A statement addressing transporting of guests and/or family members of authorized faculty and staff

A well-defined policy may prevent misuse of university-owned aircraft and detail minimum standards when using charters or donor provided aircraft.

Audit Recommendation – ISU should develop a policy and additional procedures governing the use of university-owned aircraft. The policy should address, but not be limited to, scheduling, minimum aircraft requirements (including charters and donor provided aircraft), pilot requirements, maintenance requirements, authorized users, and the manner in which the aircraft can be utilized.

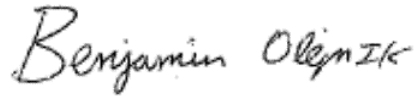
10) Taxable Meals for Pilots

Taxable meals for pilots are not being reported by Flight Service. Meals and hotel rooms of the Flight Service pilots are purchased using ISU purchasing cards. Typically, travel expenses such as meals and lodging would be paid by the employee and be reimbursed by the university. An exception was granted in 1999 to allow Flight Service pilots to purchase meals and lodging on purchasing cards. Internal Revenue Service guidelines require meals paid by the employer, when no overnight travel is required, to be treated as taxable income to the employee. When meals are reimbursed through the employee reimbursement system, taxable meals are captured automatically. There is no mechanism in place to capture taxable meals when purchased with a purchasing card. A review of six months of purchasing card purchases found 17 meals for \$558 on trips with no overnight stay. The majority of transactions were for meals for two pilots and itemized receipts were not included in the transactional documentation. It may be difficult to determine if daily meal limits are being exceeded when purchased in this manner.

Audit Recommendation – At a minimum, meals when overnight stays are not required should be purchased by the individual and reimbursed through the employee reimbursement system so the meals are reported as taxable. Management should consider whether all meals and lodging expenses should be reimbursed through the employee reimbursement system. If meals are purchased using a purchasing card when overnight stay is required, itemized receipts should be provided as supporting documentation.

SUMMARY

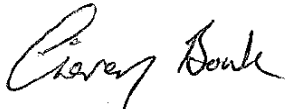
Implementing the audit recommendations described above will improve internal controls within Flight Service. Due to the accelerated timeline of this audit, management action plans were not obtained. Internal Audit will contact management to obtain corrective actions and will follow up as appropriate.



Benjamin Olejnik, Auditor



Matt Dahlsten, Auditor



Ciaran Bowe, Senior Auditor



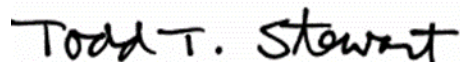
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