

**NOTICE OF A REGULAR MEETING OF
THE FRIEDMAN MEMORIAL AIRPORT AUTHORITY**

PLEASE TAKE NOTICE that a regular meeting of the Friedman Memorial Airport Authority shall be held Tuesday, May 1, 2018 at 5:30 p.m. at the old Blaine County Courthouse Meeting Room Hailey, Idaho. All matters shall be considered Joint Decision Matters unless otherwise noted. The proposed Agenda for the meeting is as follows:

**AGENDA
May 1, 2018**

- I. APPROVE AGENDA**
- II. PUBLIC COMMENT (10 Minutes Allotted)**
- III. FRIEDMAN MEMORIAL AIRPORT AUTHORITY MEETING MINUTES OF:**
 - A. April 3, 2018 Regular Meeting – Motion to Approve – **Attachment #1**
- IV. REPORTS**
 - A. Chairman Report
 - B. Blaine County Report
 - C. City of Hailey Report
 - D. Fly Sun Valley Alliance Report
 - E. Airport Manager Report
- V. AIRPORT STAFF BRIEF (5 Minutes Allotted)**
 - A. Noise Complaints
 - B. Profit & Loss, ATCT Traffic Operations Count and Enplanement Data – **Attachments #2 – #4**
 - C. Airport Commercial Flight Interruptions (unofficial)
 - D. Review Correspondence – **Attachment #5**
- VI. ACTION**
 - A. NEW BUSINESS
 - 1. Equipment Acquisition – Case 1121C Loader – Consideration of a Lease Purchase Agreement
 - B. CONTINUING BUSINESS
 - 1. Communications – Request for Proposal (RFP) – Consideration of Communications Team Recommendation
- VII. DISCUSSION AND UPDATES**
 - A. NEW BUSINESS
 - 1. Presentation of Air Traffic Control Tower Replacement Alternatives Analyses by Consultant Team – **Attachment #6**
 - B. CONTINUING BUSINESS
 - 1. Construction and Capital Projects
 - i. Runway Pavement Maintenance
 - ii. Terminal Air Carrier Apron and Parking Lot Improvements
 - 2. Airport Planning Projects
 - i. Environmental Assessment for Runway Protection Zone and Obstruction Removal
 - ii. Airport Noise Modeling Discussion with Noise Consultant – **Attachment #7**
 - 3. Misc.
 - i. Terminal Concession Services - Request for Proposal (RFP)
- VIII. PUBLIC COMMENT**
- IX. EXECUTIVE SESSION –**
 - I.C. §74-206 (c) To acquire an interest in real property which is not owned by a public agency
 - I.C. §74-206 (f) To communicate with legal counsel to discuss legal ramifications for controversy imminently likely to be litigated
- X. ADJOURNMENT**

III. FRIEDMAN MEMORIAL AIRPORT AUTHORITY MEETING MINUTES OF:

A. April 3, 2018 Regular Meeting – Motion to Approve - **Attachment #1**

IV. REPORTS

A. Chairman Report

This item is on the agenda to permit a Chairman report if appropriate.

B. Blaine County Report

This item is on the agenda to permit a County report if appropriate.

C. City of Hailey Report

This item is on the agenda to permit a City report if appropriate.

D. Fly Sun Valley Alliance Report

This item is on the agenda to permit an Airport Manager report if appropriate.

E. Airport Manager Report

This item is on the agenda to permit a report if appropriate.

V. AIRPORT STAFF BRIEF - (5 Minutes Allotted)

A. Noise Complaints in April 2018

LOCATION	DATE	TIME	AIRCRAFT TYPE	INCIDENT	ACTION/RESPONSE
Bellevue	4/11/2018	3:00 am	Jet	Departure	Airport Manager received an email concerning a 3 am jet departure. After research which included a review of Flight Aware activity records, contact with Atlantic Aviation, Air St. Luke's dispatch, and airport security camera footage, this was not an airport operation. The emailer was notified and advised it was most likely a vehicle on Hwy 75.
Woodside	4/14/2018	9:45 am	Prop	Loud propeller aircraft flying low over Woodside.	Caller advised of a low flying aircraft over Woodside several times that was loud and that she hear through her closed windows. Unable to determine any unusual flight operations.
Bellevue, Lees Gulch	4/20/2018	2:17 pm	Jet	Private jet landing was very low.	Ops Mngr contacted caller. Caller estimated that the jet was about 500' AGL and coming from the Seattle area. The caller was very friendly and a former pilot. His concern was that the jet was not operating safely.

B. Profit & Loss, ATCT Traffic Operations Count and Enplanement Data -
Attachments #2 - #4

Attachment #2 is Friedman Memorial Airport Profit & Loss Budget vs. Actual (unaudited)

Attachment #3 is 2001 - 2018 ATCT Traffic Operations data comparison by month

Attachment #4 is 2018 Enplanement, Deplanement and Seat Occupancy data

The following revenue and expense analysis is provided for Board information and review:

February 2017/2018

Total Non-Federal Revenue	February 2018	\$221,146.61
Total Non-Federal Revenue	February, 2017	\$198,035.57
Total Non-Federal Revenue	FY '18 thru February	\$1,306,536.25
Total Non-Federal Revenue	FY '17 thru February	\$1,225,310.28
Total Non-Federal Expenses	February, 2018	\$242,656.82
Total Non-Federal Expenses	February, 2017	\$313,516.52
Total Non-Federal Expenses	FY '18 thru February	\$1,260,877.17
Total Non-Federal Expenses	FY '17 thru February	\$1,320,768.28
Net Income to include Federal Programs	FY '18 thru February	\$186,230.76
Net Income to include Federal Programs	FY '17 thru February	\$-228,371.03

C. Airport Commercial Flight Interruptions (unofficial):

AIRLINE	FLIGHT CANCELLATIONS	FLIGHT DIVERSIONS
March 28 through April 26 (2017/2018 Winter Bussing Ended April 15)		
Alaska Airlines	None	2
Delta	None	4
United	None	2

D. Review Correspondence – **Attachment #5**

Attachment #5 is included for Board review.

VI. ACTION

A. NEW BUSINESS

1. Equipment Acquisition – Case 1121C Loader – Consideration of a Lease Purchase Agreement

A Case Loader was rented for a period of five months during snow removal operations. The rental amount was \$49,000.

The loader was delivered to the airport in new condition. As it has been used for five months, it is now considered a used piece of equipment. The Airport has the ability to purchase used equipment without completing a formal bid process. Staff has determined it would be beneficial to retain the loader for 12 months for essentially the same amount that is currently being paid for 5 months. There is also the added benefit of owning the equipment at the end of the lease.

Action requested: Staff is requesting approval to enter into a 61-month lease purchase agreement with annual payments of \$53,991. To comply with government purchasing requirements, the lease purchase agreement can be terminated should the Board determine it is in the best interest of the airport.

B. CONTINUING BUSINESS

1. Communications – Request for Proposal (RFP) – Consideration of Communications Team Recommendation

Proposals for airport communications services were due April 5. One proposal was received from Centerlyne. The communications services selection committee met to review the proposal.

A recommendation regarding the selection of a communications team will be provided by the selection committee to the full Board at the meeting.

Action requested: Consider a Motion to accept the communications team recommendation.

VII. DISCUSSION AND UPDATES

A. NEW BUSINESS

1. Presentation of Air Traffic Control Tower Replacement Alternatives Analysis by Consultant Team – **Attachment #6**

As you are aware, staff has been working with Jviation and William E. Payne and Associates to analyze alternatives available to FMAA to replace the Air Traffic Control Tower by 2023. As was discussed at the April meeting, the current state of air traffic control technology includes the emerging capabilities of camera-based digital tower solutions. rTWR/Digital Tower Technology may be viable option for the Board to consider as we approach the 2023 timeframe to relocate the SUN tower.

Greg Dyer from Aviation and Bill Payne from William E. Payne and Associates will be in attendance at the meeting to present the initial results of the analysis. Greg and Bill have extensive experience in this arena and staff encourages a good dialogue and question and answer session with the consultant team to assist the Board in making a fully informed decision for best value and best capability to match SUN's needs for future air traffic control facility needs.

B. CONTINUING BUSINESS

1. Construction and Capital Projects

i. Runway Pavement Maintenance

REMINDER: The final pavement markings for the runway and apron are tentatively scheduled for June 5 and 6, 2018. The runway will need to be closed to complete the work, and the closure schedule is as follows: June 5th – the Runway will be closed from 8:15 am until 9:00 pm; June 6th – the Runway will be closed from 8:15 am until approximately 5:00 pm. This schedule allows early morning and late evening use of the airport for commercial service and GA traffic each of the two work days.

No presentation or discussion of this topic is planned for the meeting.

ii. Terminal Air Carrier Apron and Parking Lot Improvements

Work on this project is under way and going well, overall. A few days of wet weather slowed the contractor down somewhat, but they continue to make good progress. No major issues have been encountered, to this point. A more detailed update on the project will be provided at the board meeting.

2. Airport Planning Projects

i. Environmental Assessment for Runway Protection Zone and Obstruction Removal

Comments on Chapters 1-3 of the Environmental Assessment report were received from FAA on April 20 and these comments are being addressed. The revised chapters will be submitted to FAA with the goal of publishing the draft EA in early May and a public hearing at the June meeting. A brief status update will be provided at the board meeting.

ii. Airport Noise Modeling Discussion with Noise Consultant – **Attachment #7**

Results from the Phase 2 noise modeling effort completed by Landrum & Brown were presented to the Board at the December 2017 FMAA meeting. The Phase 2 noise modeling analysis focused on three operating conditions at the airport; 2017 Average-Annual Day, 2017 Peak Month – Average Day, and 2017 Peak Day. As a reminder, the summary memo document presented at the December 2017 is included as **Attachment #7**.

At the December 2017 meeting the Board discussed the results of the analysis including impacts and potential mitigation options in the future. As a result of

some of the questions asked during the discussion and the technical nature of the subject matter, staff recommended an invitation be extended to the noise consultant to attend a future FMAA meeting to discuss the modeling effort and answer questions by the Board in more detail. The Board agreed.

The Landrum & Brown Project Planner who managed the modeling effort for FMAA will be in attendance at the meeting to discuss the results and answer questions from the Board.

3. Misc.

i. Terminal Concession Services Request for Proposal (RFP)

Proposals for terminal concession services were due on March 26. Two proposals were received from The Coffee House (Hailey) and 7 Fuego (Bellevue). Interviews with the proposers were scheduled with the selection committee on April 12. At the last minute, 7 Fuego advised staff they were pulling their proposal from consideration.

The selection committee and staff interviewed Roy Clark, The Coffee House, and based on the results of the interview and subsequent discussion, an offer was extended to The Coffee House to initiate concession services as soon as able.

Additional discussion and questions with the selection committee about the selection process and successful candidate is anticipated at the meeting.

VIII. PUBLIC COMMENT

IX. EXECUTIVE SESSION - I.C. §74-206 (c)

To acquire an interest in real property which is not owned by a public agency

I.C. §74-206 (f)

To communicate with legal counsel to discuss legal ramifications for controversy imminently likely to be litigated

X. ADJOURNMENT

**MINUTES OF A REGULAR MEETING ATTACHMENT 1
OF THE
FRIEDMAN MEMORIAL AIRPORT AUTHORITY***

**April 3, 2018
5:30 P.M.**

IN ATTENDANCE:

BOARD MEMBERS: Chairman – Don Keirn, Vice-Chairman – Jacob Greenberg, Secretary - Lawrence Schoen, Treasurer – Ron Fairfax, Board - Fritz Haemmerle, Angenie McCleary, Pat Cooley
FRIEDMAN MEMORIAL AIRPORT STAFF: Airport Manager – Chris Pomeroy, Contracts/Finance Administrator – Lisa Emerick, ASC/Special Projects Coordinator/Executive Assistant – Steve Guthrie, Airport Operations Manager – Todd Emerick; Administrative Assistant/Alternate Security Coordinator – Roberta Christensen, Administrative Assistant – Cecilia Vega
CONSULTANTS: T-O Engineers – Dave Mitchell; Centerlyne – Candace Crew, Sarah Shepard
AIRPORT TENANTS/PUBLIC: Atlantic Aviation – Brian Blackburn; Comp Plan – Len Harlig; FHR – Marc Reinemann; GCA – John Strauss; Fly Sun Valley Alliance – Carol Waller; The Coffee House – Roy Clark; Evan Stelma, Felicity Roberts
AIRPORT LEGAL COUNSEL: Lawson Laski Clark & Pogue, PLLC – Jim Laski
PRESS: Idaho Mountain Express – Tony Evans

CALL TO ORDER:

The meeting was called to order at 5:30 p.m. by Chairman Keirn.

I. APPROVE AGENDA

The agenda was approved as presented.

II. PUBLIC COMMENT

No public comment was made.

**III. APPROVE FMAA
MEETING MINUTES**

A. March 6, 2018 Regular Meeting (See Brief)

The March 6, 2018 Friedman Memorial Airport Authority Meeting Minutes were approved as presented.

MOTION:

Made by Vice-Chairman Greenberg to approve the March 6, 2018 Friedman Memorial Airport Authority Regular Meeting Minutes as presented. Seconded by Board Member Fairfax.

PASSED UNANIMOUSLY

IV. REPORTS

A. Chairman Report
No report was given.

B. Blaine County Report
No report was given.

C. City of Hailey Report
No report was given.

D. Fly Sun Valley Alliance

Fly Sun Valley Alliance (FSVA) Director, Carol Waller reported that the summer flight schedule has been released and winter survey statistics will be forthcoming.

E. Airport Manager Report

Airport Manager Pomeroy briefed the Board on the following:

- The House of Representatives and the Transportation & Infrastructure (T&I) Department staff are reworking the Federal Aviation Administration (FAA) reauthorization bill. The Airport Manager will attend the Contract Tower Program workshop in Washington D.C, June 18-20, 2018.
- Board Member Schoen briefed the Board on his visit to Andras Kovacs, Manager, NextGen Technology Development & Prototyping, FAA Headquarters, Washington, DC and the Leesburg, VA Executive Airport Remote/Digital Tower site. The Board discussed several aspects of the Remote Tower Program such as available vendors with the technology, FAA deadline implementation, funding, security restrictions for placement of tower on airport property and the benefits this option may have for Friedman Memorial Airport (FMA)
- At the request of local pilots, the Airport Manager has been working with the FAA and the tower to re-implement the turf landing area for small aircraft. It is anticipated to be implemented this summer.
- The Airport will be hosting an Airport Communication/Public Information Workshop on April 25, 2018 with Deb Smith, PIO from Centennial Airport in Denver, Co.
- The Performance-Based Navigation (PBN) Approach Request that was accepted in January by the FAA remains uncertain as to completion due to budget cuts. In an effort to move forward, a revised scope of work for the Instrument Approach Improvements from Hughes Aerospace has been requested.
- The next phase of the Rates & Charges study is underway and initial negotiations with the airlines are scheduled for May.
- Implementation of the Parking Management Agreement with The Car Park is still underway. An update on parking lot reconfiguration and operational adjustments will be discussed at the June meeting.
- The Idaho Airport Management Association Conference will be held in Sun Valley on April 16-17, 2018 and a tour of the Airport for this group is scheduled on Monday the 16th.
- The SUN Airport Arts Committee (SAAC) is reviewing the artwork submittals for the new display on May 17, 2018.
- In the May meeting, the Board should anticipate a presentation on the results for the Air Traffic Control Tower analysis as well as the findings of the Noise Modeling study.

Board Member Schoen asked why Skywest was not developing or offering to assist with developing the Instrument Approach Procedure since the company and its customers would benefit by reducing diversions.

Airport Manager Pomeroy responded that developing an Instrument Approach Procedure would be a significant investment for the airlines; however, he will make an effort to procure a meeting between the airlines, FSVA, and Staff to discuss available options.

V. AIRPORT STAFF BRIEF

A. Noise Complaints (See Brief)

B. Profit & Loss, ATCT Traffic Operations Count and Enplanement Data (See Brief)

C. Airport Commercial Flight Interruptions (See Brief)

D. Review Correspondence (See Brief)

VI. ACTION

A. NEW BUSINESS (See Brief)

1. Renew Southern Wood River Valley Fire Service Automatic Aid Agreement

Airport Manager Pomeroy requested that the Board consider renewal of the Southern Wood River Fire Service Aid Agreement and briefed the Board that the Agreement involves several local agencies and provides emergency support to Friedman Memorial Airport.

MOTION:

Made by Board Member Fairfax to approve FMAA's participation in the Southern Wood River Valley Fire Service Automatic Aid Agreement and authorize the Chairman to sign the Agreement. Seconded by Board Member Haemmerle.

PASSED UNANIMOUSLY

2. Additional New Business Action after Executive Session (See Brief)

B. CONTINUING BUSINESS

1. None

VII. DISCUSSION AND UPDATES

A. NEW BUSINESS

1. Potential Operations of New Global Express 7000 at SUN

Airport Manager Pomeroy briefed the Board that he has been contacted by Bombardier regarding a potential operation of a new Global Express 7000 at SUN. The Airport Manager has consulted with the previous Airport Manager, Rick Baird, the FAA, consultants, and Atlantic Aviation regarding potential procedures that would be required in order to allow this operation at the Airport.

Board Member Schoen commented that he is concerned that it may be perceived that FMA is going to change its policy with respect to aircraft size and allow for larger planes to operate. He also asked if this bigger aircraft will have a higher noise profile.

Vice-Chairman Greenberg commented that there were operations that the Board could not control.

Airport Manager Pomeroy commented that based on the current Modification to Standards (MOS) the 95,000-pound weight limit established at SUN has been validated through a legal process. The wingspan is not a limitation of the operation. He also responded that this larger aircraft was quieter than others in its fleet.

Airport Engineer Mitchell commented that the MOS was developed with weight limitations and verbiage to allow for larger wingspan if such aircraft would enter the fleet; however, it would have to be addressed with an alternative operational procedure. An acceptable alternative procedure is being considered.

2. Enforcement of Regulations with Ground Transportation Service Providers

Airport Manager Pomeroy briefed the Board on the efforts made by Staff to enforce GTSP regulations to ensure compliance and fair practices at the Airport.

B. CONTINUING BUSINESS (See Power Point Presentation)

1. FAA Letter to the City of Bellevue regarding Air Traffic Procedures at SUN

Chairman Keirn briefed the Board that the City of Bellevue had received a response from the FAA regarding Air Traffic Procedures at SUN.

Board Member Fairfax commented that the response was concise and to the point.

2. Construction and Capital Projects

i. Runway Pavement Maintenance

Airport Manager Pomeroy reminded the Board about the scheduled closures at the Airport for the runway pavement maintenance project on June 5th from 8:15 a.m. to 9 p.m. and June 6th from 8:15 a.m. to 5 p.m.

ii. Terminal Air Carrier Apron and Parking Lot Improvements

Airport Engineer Mitchell briefed the Board on the status of the Terminal Air Carrier Apron and Parking Lot Improvement project and commented that work began on April 2, 2018.

Airport Manager Pomeroy thanked Steve Thompson from Blaine County and Steve Harkins from the Blaine County Sheriff's Office for allowing the Airport to use their message boards during construction. He also commented that he is still working with the City of Hailey on wayfinding signage for the Airport.

Board Member Schoen asked what impacts Airport construction will have on entry and exit options and if any parking lot user delays were anticipated.

Airport Engineer Mitchell responded that entry and exit avenues were properly placed and minor delays may be experienced by the airport user if equipment installation was taking place.

3. Airport Planning Projects

i. Environmental Assessment for Runway Protection Zone and Obstructions Removal

Airport Engineer Mitchell briefed the Board on the status of the Environmental Assessment and commented that updated documents have been submitted to the FAA and the State Historical Preservation Office (SHPO). A public hearing is anticipated to be scheduled in May or June.

4. Misc.

i. Terminal Concession Services – Request for Proposal (RFP)

Airport Manager Pomeroy informed the Board that two proposals for the Terminal Concession Services had been received.

Vice-Chairman Greenberg commented that the Committee will be meeting on Thursday, April 5, 2018 to review the submittals. He asked the Board if they felt comfortable giving the Committee the authorization to make a decision and update the Board at the May meeting.

Board Member McCleary asked the Committee to forward the submittals for review. She commented that the Board needs to execute the lease agreement and asked about the timeline for completion.

Airport Attorney Laski responded that the agreement is a standard lease agreement and typically not brought to the Board for approval.

Board Member Schoen commented that he supports the Committee's ability to make a decision, but requested that the Committee be open to receive feedback from the Board.

Vice-Chairman Greenberg commented that interviews would be set up after the initial Committee meeting, comments by the Board would be welcomed and the Board will be updated on the decision at the May meeting.

ii. Communications – Request for Proposal (RFP)

Airport Manager Pomeroy briefed the Board that submittals for the Communications RFP are due on Thursday, April 5, 2018. Upon submittal, the Committee will review and the Board should expect an update at the May meeting.

VIII. PUBLIC COMMENT

No public comment was made.

**IX. EXECUTIVE SESSION – MOTION:
I.C. §74-206 (c)(f)**

Made by Board Member Haemmerle to enter into executive session pursuant to Idaho Code §74-206 paragraph (c) to acquire an interest in real property and paragraph (f) to communicate with legal counsel to discuss legal ramifications for controversy imminently likely to be litigated. Seconded by Board Member McCleary.

ROLL CALL VOTE:

<i>Chairman Fairfax</i>	<i>Yes</i>
<i>Vice-Chairman Keirn</i>	<i>Yes</i>
<i>Board Member Greenberg</i>	<i>Yes</i>
<i>Board Member Schoen</i>	<i>Yes</i>
<i>Board Member Haemmerle</i>	<i>Yes</i>
<i>Board Member McCleary</i>	<i>Yes</i>
<i>Board Member Cooley</i>	<i>Yes</i>

PASSED UNANIMOUSLY

X. ACTION - Continued

A. NEW BUSINESS

2. Offer to Acquire Interest in Approach/RPZ Land

After Executive Session, Chairman Keirn brought the meeting to order and requested that the Board consider a motion to acquire interest in the approach/RPZ land.

MOTION:

Made by Board Member Schoen to authorize Chairman Keirn to sign a letter to commence negotiations as soon as possible to purchase land in the RPZ, approach and departure areas subject to final approval by the Board and FAA and to concurrently commence good faith negotiations with owner to acquire a temporary easement for purposes of the tree removal consistent with appraised value for the easement. Seconded by Board Member Fairfax.

PASSED UNANIMOUSLY

XI. ADJOURNMENT

The April 3, 2018 Regular Meeting of the Friedman Memorial Airport Authority was adjourned at approximately 7:52 p.m.

Lawrence Schoen, Secretary

* *Additional resources/materials that should be reviewed with these meeting minutes include but are not limited to the Friedman Memorial Airport Authority Board Packet briefing, the PowerPoint presentation prepared for this meeting and any referenced attachments.*

Friedman Memorial Airport
Profit & Loss Budget vs. Actual (COMBINED '18)
 October 2017 through February 2018

9:52 AM
 04/17/18
 Accrual Basis

	Oct '17 - Feb 18	Budget	\$ Over Budget	% of Budget
Ordinary Income/Expense				
Income				
4000-00 · AIRCARRIER				
4000-01 · Aircarrier - Lease Space	35,217.15	35,225.00	-7.85	100.0%
4000-02 · Aircarrier - Landing Fees	76,187.55	73,650.00	2,537.55	103.4%
4000-03 · Aircarrier - Gate Fees	500.00	500.00	0.00	100.0%
4000-04 · Aircarrier - Utility Fees	6,757.74	3,300.00	3,457.74	204.8%
4000-05 · Aircarrier - Misc.	0.00	18,000.00	-18,000.00	0.0%
4010-07 · Aircarrier - '14 PFC App	180,585.13	154,350.00	26,235.13	117.0%
Total 4000-00 · AIRCARRIER	299,247.57	285,025.00	14,222.57	105.0%
4020-00 · TERMINAL AUTO PARKING REVENUE				
4020-01 · Automobile Parking - Terminal	120,025.93	109,850.00	10,175.93	109.3%
Total 4020-00 · TERMINAL AUTO PARKING REVENUE	120,025.93	109,850.00	10,175.93	109.3%
4030-00 · AUTO RENTAL REVENUE				
4030-01 · Automobile Rental - Commission	213,339.15	233,800.00	-20,460.85	91.2%
4030-02 · Automobile Rental - Counter	11,420.40	11,425.00	-4.60	100.0%
4030-03 · Automobile Rental - Auto Prkng	42,510.30	42,550.00	-39.70	99.9%
4030-04 · Automobile Rental - Utilities	471.99	450.00	21.99	104.9%
Total 4030-00 · AUTO RENTAL REVENUE	267,741.84	288,225.00	-20,483.16	92.9%
4040-00 · TERMINAL CONCESSION REVENUE				
4040-01 · Terminal Shops - Commission	0.00	1,350.00	-1,350.00	0.0%
4040-02 · Terminal Shops - Lease Space	0.00	7,060.00	-7,060.00	0.0%
4040-03 · Terminal Shops - Utility Fees	471.98	200.00	271.98	236.0%
4040-10 · Advertising - Commission	23,375.05	24,700.00	-1,324.95	94.6%
4040-11 · Vending Machines - Commission	6,111.98	7,600.00	-1,488.02	80.4%
4040-12 · Terminal ATM	269.50	120.00	149.50	224.6%
Total 4040-00 · TERMINAL CONCESSION REVENUE	30,228.51	41,030.00	-10,801.49	73.7%
4050-00 · FBO REVENUE				
4050-01 · FBO - Lease Space	77,572.19	75,590.00	1,982.19	102.6%
4050-02 · FBO - Tiedown Fees	88,222.69	115,500.00	-27,277.31	76.4%
4050-03 · FBO - Landing Fees - Trans.	129,710.23	114,500.00	15,210.23	113.3%
4050-04 · FBO - Commission	10,177.20	9,750.00	427.20	104.4%
4050-07 · FBO - Miscellaneous	0.00	0.00	0.00	0.0%
Total 4050-00 · FBO REVENUE	305,682.31	315,340.00	-9,657.69	96.9%
4060-00 · FUEL FLOWAGE REVENUE				
4060-01 · Fuel Flowage - FBO	131,866.20	128,000.00	3,866.20	103.0%
Total 4060-00 · FUEL FLOWAGE REVENUE	131,866.20	128,000.00	3,866.20	103.0%

Friedman Memorial Airport
Profit & Loss Budget vs. Actual (COMBINED '18)
 October 2017 through February 2018

	Oct '17 - Feb 18	Budget	\$ Over Budget	% of Budget
4070-00 · TRANSIENT LANDING FEES REVENUE				
4070-02 · Landing Fees - Non-Comm./Gov't	218.82	250.00	-31.18	87.5%
Total 4070-00 · TRANSIENT LANDING FEES REVENUE	218.82	250.00	-31.18	87.5%
4080-00 · HANGAR REVENUE				
4080-01 · Land Lease - Hangar	230,238.42	230,405.00	-166.58	99.9%
4080-02 · Land Lease - Hangar/Trans. Fee	2,956.25	750.00	2,206.25	394.2%
4080-03 · Hangar/Utilities (E8,11,24)	0.00	900.00	-900.00	0.0%
4080-05 · Land Lease - FMA Hangar Rentals	6,650.70	14,000.00	-7,349.30	47.5%
Total 4080-00 · HANGAR REVENUE	239,845.37	246,055.00	-6,209.63	97.5%
4090-00 · TIEDOWN PERMIT FEES REVENUE				
4090-01 · Tiedown Permit Fees (FMA)	9,083.00	8,650.00	433.00	105.0%
Total 4090-00 · TIEDOWN PERMIT FEES REVENUE	9,083.00	8,650.00	433.00	105.0%
4100-00 · CARGO CARRIERS REVENUE				
4100-01 · Cargo Carriers - Landing Fees	4,293.67	3,800.00	493.67	113.0%
4100-02 · Cargo Carriers - Tiedown	2,970.00	3,000.00	-30.00	99.0%
Total 4100-00 · CARGO CARRIERS REVENUE	7,263.67	6,800.00	463.67	106.8%
4110-00 · MISCELLANEOUS REVENUE				
4110-01 · Misc. Revenue	41.94			
4110-09 · Miscellaneous Expense Reimburse	0.00			
Total 4110-00 · MISCELLANEOUS REVENUE	41.94			
4120-00 · GROUND TRANSP. PERMIT REVENUE				
4120-01 · Ground Transportation Permit	18,300.00	13,150.00	5,150.00	139.2%
4120-02 · GTSP - Trip Fee	1,680.00	1,500.00	180.00	112.0%
Total 4120-00 · GROUND TRANSP. PERMIT REVENUE	19,980.00	14,650.00	5,330.00	136.4%
4400-00 · TSA/SECURITY				
4400-02 · Terminal Lease	16,818.75	16,825.00	-6.25	100.0%
4400-03 · Security Prox. Cards	26,440.00	25,220.00	1,220.00	104.8%
Total 4400-00 · TSA/SECURITY	43,258.75	42,045.00	1,213.75	102.9%
4500-00 · IDAHO STATE GRANT PROGRAM REV.				
4500-18 · SUN-18 SKW E-175 Certification	0.00	25,000.00	-25,000.00	0.0%
Total 4500-00 · IDAHO STATE GRANT PROGRAM REV.	0.00	25,000.00	-25,000.00	0.0%

Friedman Memorial Airport
Profit & Loss Budget vs. Actual (COMBINED '18)
October 2017 through February 2018

	Oct '17 - Feb 18	Budget	\$ Over Budget	% of Budget
4510-00 · DOT/Small Community Air Service				
4510-01 · Small Community Air Service	295,305.90	250,000.00	45,305.90	118.1%
4510-02 · Small Community Air Serv. 2016	0.00	0.00	0.00	0.0%
Total 4510-00 · DOT/Small Community Air Service	295,305.90	250,000.00	45,305.90	118.1%
4520-00 · INTEREST REVENUE				
4520-01 · Interest Revenue - General	12,637.47	4,780.00	7,857.47	264.4%
4520-07 · Interest Revenue - '14 PFC	7.63	301.50	-293.87	2.5%
Total 4520-00 · INTEREST REVENUE	12,645.10	5,081.50	7,563.60	248.8%
4742-00 · AIP 42 - Project Air Carr. Apr				
4742-01 · AIP '42 Air Carr. Apron	0.00	0.00	0.00	0.0%
Total 4742-00 · AIP 42 - Project Air Carr. Apr	0.00	0.00	0.00	0.0%
4743-00 · AIP 43 - Air Carrier /Pkg. Lot				
4743-01 · AIP 43 - Air Carrier/Pkg. Lot	376,629.87	389,063.00	-12,433.13	96.8%
Total 4743-00 · AIP 43 - Air Carrier /Pkg. Lot	376,629.87	389,063.00	-12,433.13	96.8%
4744-00 · AIP '44 RPZ Acquisition EA				
4744-01 · AIP '44 - RPZ Acquisition - EA	18,197.04	0.00	18,197.04	100.0%
Total 4744-00 · AIP '44 RPZ Acquisition EA	18,197.04	0.00	18,197.04	100.0%
Total Income	2,177,261.82	2,155,064.50	22,197.32	101.0%
Gross Profit	2,177,261.82	2,155,064.50	22,197.32	101.0%
Expense				
EXPENDITURES				
"A" EXPENSES				
5000-01 · Salaries - Airport Manager	61,026.75	58,500.00	2,526.75	104.3%
5000-02 · Salaries - Assist. Airt. Manag	0.00	47,915.00	-47,915.00	0.0%
5010-00 · Salaries - Contracts/Finance Adm	43,732.88	41,955.00	1,777.88	104.2%
5010-01 · Salaries - Office Assist.	91,551.98	82,685.00	8,866.98	110.7%
5020-00 · Salaries - ARFF/OPS Manager	42,220.94	40,620.00	1,600.94	103.9%
5030-00 · Salaries - ARFF/OPS Specialist	164,648.42	167,113.75	-2,465.33	98.5%
5040-00 · Salaries-ASC/Sp.Prjct./Ex. Assi	33,713.54	31,250.00	2,463.54	107.9%
5050-00 · Salaries-Seasonal-Snow Removal	21,505.00	30,400.00	-8,895.00	70.7%
5050-01 · Salaries - Seasonal - Arpt Host	3,626.00	3,500.00	126.00	103.6%
5050-02 · Salaries - Merit Increase	0.00	23,500.00	-23,500.00	0.0%
5060-01 · Overtime - General	0.00	0.00	0.00	0.0%
5060-02 · Overtime - Snow Removal	7,604.38	16,000.00	-8,395.62	47.5%
5060-04 · OT - Security	0.00	0.00	0.00	0.0%
5100-00 · Retirement	51,732.24	62,205.00	-10,472.76	83.2%
5110-00 · Social Security/Medicare	33,932.13	40,990.00	-7,057.87	82.8%
5120-00 · Life Insurance	672.25	831.00	-158.75	80.9%

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	Oct '17 - Feb 18	Budget	\$ Over Budget	% of Budget
5130-00 · Medical Insurance	76,686.54	91,875.00	-15,188.46	83.5%
5160-00 · Workman's Compensation	13,466.00	16,000.00	-2,534.00	84.2%
5170-00 · Unemployment Claims	121.32			
Total "A" EXPENSES	646,240.37	755,339.75	-109,099.38	85.6%
"B" EXPENDITURES				
"B" EXPENSES - ADMINISTRATIVE				
6000-00 · TRAVEL EXPENSE				
6000-01 · Travel	2,165.35	7,060.00	-4,894.65	30.7%
Total 6000-00 · TRAVEL EXPENSE	2,165.35	7,060.00	-4,894.65	30.7%
6010-00 · SUPPLIES/EQUIPMENT EXPENSE				
6010-01 · Supplies - Office	4,309.56	4,700.00	-390.44	91.7%
6010-03 · Supplies - Computer	2,069.43	1,500.00	569.43	138.0%
Total 6010-00 · SUPPLIES/EQUIPMENT EXPENSE	6,378.99	6,200.00	178.99	102.9%
6020-00 · INSURANCE				
6020-01 · Insurance - Liability	7,100.00	12,454.00	-5,354.00	57.0%
6020-02 · Insurance - Public Officials	12,425.00	5,780.00	6,645.00	215.0%
6020-03 · Insurance-Bldg/Unlic.Veh./Prop	5,575.00	39,600.00	-34,025.00	14.1%
6020-04 · Insurance - Licensed Vehicles	0.00	6,675.00	-6,675.00	0.0%
Total 6020-00 · INSURANCE	25,100.00	64,509.00	-39,409.00	38.9%
6030-00 · UTILITIES				
6030-01 · Utilities - Gas/Terminal	8,340.00	6,300.00	2,040.00	132.4%
6030-02 · Utilities - Gas/AOB & Cold Stor	4,323.77	5,045.00	-721.23	85.7%
6030-03 · Utilities - Elect./Runway&PAPI	3,413.27	3,910.00	-496.73	87.3%
6030-04 · Utilities - Elec./AOB & Cold St	3,289.81	4,815.00	-1,525.19	68.3%
6030-05 · Utilities - Electric/Terminal	17,822.15	18,765.00	-942.85	95.0%
6030-06 · Utilities - Telephone	6,435.67	6,295.00	140.67	102.2%
6030-07 · Utilities - Water	571.94	390.00	181.94	146.7%
6030-08 · Utilities - Garbage Removal	3,270.13	4,450.00	-1,179.87	73.5%
6030-09 · Utilities - Sewer	1,669.15	1,360.00	309.15	122.7%
6030-11 · Utilities - Electric/Tower	2,829.41	2,700.00	129.41	104.8%
6030-12 · Utilities - Elec./Brdfrd.Hghl	198.52	240.00	-41.48	82.7%
6030-15 · Utilities - Elec/AWOS	1,614.39	1,445.00	169.39	111.7%
6030-16 · Utilities - Elec. Wind Cone	53.08	58.00	-4.92	91.5%
6030-17 · Utilities - Elec./Gas- Hangar	2,089.29	1,825.00	264.29	114.5%
6030-18 · Utilities - Lubricant Wst. Dspl	302.64			
Total 6030-00 · UTILITIES	56,223.22	57,598.00	-1,374.78	97.6%

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	Oct '17 - Feb 18	Budget	\$ Over Budget	% of Budget
6040-00 · SERVICE PROVIDER				
6040-01 · Service Provider - General	0.00	0.00	0.00	0.0%
6040-02 · Service Provider - Term. Serv.	3,366.92	3,900.00	-533.08	86.3%
6040-03 · Service Provider - AOB Services	18,906.45	13,225.00	5,681.45	143.0%
6040-04 · Service Provider - Operations	12,850.00	12,850.00	0.00	100.0%
Total 6040-00 · SERVICE PROVIDER	35,123.37	29,975.00	5,148.37	117.2%
6050-00 · PROFESSIONAL SERVICES				
6050-01 · Professional Services - Legal	22,461.70	20,825.00	1,636.70	107.9%
6050-02 · Professional Serv. - Audit/Fina	60,162.99	64,000.00	-3,837.01	94.0%
6050-03 · Professional Services - Engineer	11,475.00	3,325.00	8,150.00	345.1%
6050-05 · Professional Services - Gen.	7,720.93	6,500.00	1,220.93	118.8%
6050-08 · Professional Services - Securit	0.00	0.00	0.00	0.0%
6050-10 · Prof. Svcs.-IT/Comp. Support	3,648.23	4,155.00	-506.77	87.8%
6050-12 · Prof. Serv.-Planning Air Serv.	0.00	6,250.00	-6,250.00	0.0%
6050-13 · Prof. Serv.-Website Des.& Maint	647.66	2,500.00	-1,852.34	25.9%
6050-15 · Prof. Serv.-Comm.Coord/Pub.Outr	5,665.20	8,325.00	-2,659.80	68.1%
6050-17 · Prof. Serv. - Airspace Consult.	9,976.96	40,000.00	-30,023.04	24.9%
Total 6050-00 · PROFESSIONAL SERVICES	121,758.67	155,880.00	-34,121.33	78.1%
6060-00 · MAINTENANCE-OFFICE EQUIPMENT				
6060-04 · Maintenance - Copier	881.59	950.00	-68.41	92.8%
6060-05 · Maintenance - Phone	1,215.00	1,250.00	-35.00	97.2%
Total 6060-00 · MAINTENANCE-OFFICE EQUIPMENT	2,096.59	2,200.00	-103.41	95.3%
6070-00 · RENT/LEASE OFFICE EQUIPMENT				
6070-02 · Rent/Lease - Postage Meter	604.65	350.00	254.65	172.8%
Total 6070-00 · RENT/LEASE OFFICE EQUIPMENT	604.65	350.00	254.65	172.8%
6080-00 · DUES/MEMBERSHIPS/PUBLICATIONS E				
6080-01 · Dues/Memberships/Publications	4,180.74	6,500.00	-2,319.26	64.3%
6080-04 · Airport Marketing	12,960.52	8,325.00	4,635.52	155.7%
6080-06 · Marketing - SCASDP	0.00	0.00	0.00	0.0%
Total 6080-00 · DUES/MEMBERSHIPS/PUBLICATIONS E	17,141.26	14,825.00	2,316.26	115.6%
6090-00 · POSTAGE				
6090-01 · Postage/Courier Service	389.97	800.00	-410.03	48.7%
Total 6090-00 · POSTAGE	389.97	800.00	-410.03	48.7%

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	Oct '17 - Feb 18	Budget	\$ Over Budget	% of Budget
6100-00 · EDUCATION/TRAINING				
6100-01 · Education/Training - Admin.	0.00	6,250.00	-6,250.00	0.0%
6100-02 · Education/Training - OPS	0.00	5,000.00	-5,000.00	0.0%
6100-03 · Education/Training - ARFF	2,159.77	6,000.00	-3,840.23	36.0%
6100-04 · Ed/Train. - ARFF Trienn. Drill	0.00	0.00	0.00	0.0%
6100-05 · Education - Noise Abatement	0.00	1,250.00	-1,250.00	0.0%
6100-06 · Education - Security	0.00	2,500.00	-2,500.00	0.0%
6100-07 · Education - Public Outreach	679.50	5,000.00	-4,320.50	13.6%
6100-08 · Education/Training - HFD Coop.	0.00	2,500.00	-2,500.00	0.0%
6100-09 · Education - SAAC	3,099.49			
Total 6100-00 · EDUCATION/TRAINING	5,938.76	28,500.00	-22,561.24	20.8%
6110-00 · CONTRACTS				
6110-01 · Contracts - General	0.00	500.00	-500.00	0.0%
6110-02 · Contracts - FMAA	17,500.00	17,500.00	0.00	100.0%
6110-03 · Contracts - FBO/Fee Collection	24,500.00	24,500.00	0.00	100.0%
Total 6110-00 · CONTRACTS	42,000.00	42,500.00	-500.00	98.8%
6120-00 · PERMITS				
6120-01 · Permits - General	0.00	0.00	0.00	0.0%
6120-02 · Permits - COH Impact Fee	0.00	0.00	0.00	0.0%
Total 6120-00 · PERMITS	0.00	0.00	0.00	0.0%
6130-00 · MISCELLANEOUS EXPENSES				
6130-01 · Misc. - General	7,409.16	7,565.00	-155.84	97.9%
6140-00 · Bank Fees	734.84	250.00	484.84	293.9%
Total 6130-00 · MISCELLANEOUS EXPENSES	8,144.00	7,815.00	329.00	104.2%
6400-00 · DOT/SCASGP				
6400-01 · DOT/SCASGP	299,465.27			
6400-02 · DOT/SCASGP - FMAA	4,673.68			
Total 6400-00 · DOT/SCASGP	304,138.95			
Total "B" EXPENSES - ADMINISTRATIVE	627,203.78	418,212.00	208,991.78	150.0%
"B" EXPENSES - OPERATIONAL				
6500-00 · SUPPLIES/EQUIPMENT-OPERATIONS				
6500-01 · Supplies/Equipment - General	979.32	2,905.00	-1,925.68	33.7%
6500-02 · Supplies/Equipment - Tools	3,975.51	4,155.00	-179.49	95.7%
6500-03 · Supplies/Equipment - Clothing	1,679.64	3,500.00	-1,820.36	48.0%
6500-04 · Supplies/Equipment - Janitorial	6,552.31	7,675.00	-1,122.69	85.4%
Total 6500-00 · SUPPLIES/EQUIPMENT-OPERATIONS	13,186.78	18,235.00	-5,048.22	72.3%

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	Oct '17 - Feb 18	Budget	\$ Over Budget	% of Budget
6505-00 · EQUIP/VEHICLE - LEASE/RENTAL				
6505-01 · Eq./Vehi Lease/Rental - General	52,440.00	33,000.00	19,440.00	158.9%
Total 6505-00 · EQUIP/VEHICLE - LEASE/RENTAL	52,440.00	33,000.00	19,440.00	158.9%
6510-00 · FUEL/LUBRICANTS				
6510-01 · General	0.00	825.00	-825.00	0.0%
6510-02 · Fuel	11,475.46	26,000.00	-14,524.54	44.1%
6510-03 · Lubricants	0.00	1,250.00	-1,250.00	0.0%
Total 6510-00 · FUEL/LUBRICANTS	11,475.46	28,075.00	-16,599.54	40.9%
6520-00 · VEHICLES/MAINTENANCE				
6520-01 · R/M Equipment - General	617.60	14,955.00	-14,337.40	4.1%
6520-06 · R/M Equip. - '85 Ford Dump	0.00	250.00	-250.00	0.0%
6520-08 · R/M Equip. - '96 Tiger Tractor	136.51	1,400.00	-1,263.49	9.8%
6520-09 · R/M Equip. - '96 Oshkosh Swp.	489.16	9,450.00	-8,960.84	5.2%
6520-13 · R/M Equip. - Crafcoc Crack Flr.	0.00	0.00	0.00	0.0%
6520-17 · R/M Equip. '01 Case 921 Ldr.	584.84	1,575.00	-990.16	37.1%
6520-18 · R/M Equip. - '97 Chevy Blazer	0.00	150.00	-150.00	0.0%
6520-19 · R/M Equip. '02 Ford F-150 PU	0.00	350.00	-350.00	0.0%
6520-20 · R/M Equip. - '02 Kodiak Blower	8,908.82	525.00	8,383.82	1,696.9%
6520-24 · R/M Equip. - '01 Ford F-250	0.00	0.00	0.00	0.0%
6520-25 · R/M Equip. - '04 Batts De-ice	53.52	750.00	-696.48	7.1%
6520-28 · R/M Equip.-'06 Case 621 Loader	0.00	1,050.00	-1,050.00	0.0%
6520-29 · R/M Equip.-'10 Waus Broom/Plow	9,997.44	9,900.00	97.44	101.0%
6520-30 · R/M Equip.-'05 Ford F-350	6.98	750.00	-743.02	0.9%
6520-31 · R/M Equip. -'10 Oshkosh Blower	2,535.27	2,200.00	335.27	115.2%
6520-32 · R/M Equip. - '09 Mini Truck	4.77	100.00	-95.23	4.8%
6520-34 · R/M Equip. - '12 Case 921F Load	0.00	2,955.00	-2,955.00	0.0%
6520-35 · R/M Equip. - '14 Ford Explorer	80.77	300.00	-219.23	26.9%
6520-37 · R/M Equip. - '15 Tool Cat	102.52	300.00	-197.48	34.2%
6520-38 · R/M Equip. - '15 Wausau Broom	9,646.09	3,875.00	5,771.09	248.9%
6520-40 · R/M Equip. - '17 Ford-350 Super	1,407.16	200.00	1,207.16	703.6%
6520-41 · R/M Equip. - '17 Kodiak Blower	23.87			
Total 6520-00 · VEHICLES/MAINTENANCE	34,595.32	51,035.00	-16,439.68	67.8%
6530-00 · ARFF MAINTENANCE				
6530-01 · ARFF Maint. Gen/Supplies	9,466.19	5,500.00	3,966.19	172.1%
6530-03 · ARFF Maint. - '87 Oshkosh	327.00	1,000.00	-673.00	32.7%
6530-04 · ARFF Maint. - Radios	2,576.94	750.00	1,826.94	343.6%
6530-05 · ARFF MAint. - '03 E-One	637.70	1,000.00	-362.30	63.8%
6530-07 · ARFF Maint. - Supp/HFD Support	0.00	0.00	0.00	0.0%
Total 6530-00 · ARFF MAINTENANCE	13,007.83	8,250.00	4,757.83	157.7%

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	Oct '17 - Feb 18	Budget	\$ Over Budget	% of Budget
6540-00 · REPAIRS/MAINTENANCE - BUILDING				
6540-01 · R/M Bldg. - General	99.50	1,250.00	-1,150.50	8.0%
6540-02 · R/M Bldg. - Terminal	29,541.77	47,525.00	-17,983.23	62.2%
6540-03 · R/M Bldg. - Terminal Concession	2,154.74	1,250.00	904.74	172.4%
6540-04 · R/M Bldg. - Cold Storage	295.49	1,000.00	-704.51	29.5%
6540-05 · R/M Bldg. - AOB/SHOP	7,931.57	9,990.00	-2,058.43	79.4%
6540-06 · R/M Bldg. - Hangars	427.33	1,500.00	-1,072.67	28.5%
6540-07 · R/M Bldg. - Tower	2,970.78	1,200.00	1,770.78	247.6%
6540-08 · R/M Bldg. - Parking Booth	703.92	630.00	73.92	111.7%
Total 6540-00 · REPAIRS/MAINTENANCE - BUILDING	44,125.10	64,345.00	-20,219.90	68.6%
6550-00 · REPAIRS/MAINTENANCE - AIRSIDE				
6550-01 · R/M - General	29.91	2,500.00	-2,470.09	1.2%
6550-02 · R/M - Airfield/Runway	37,551.55	80,000.00	-42,448.45	46.9%
6550-04 · R/M - Lights	6,643.98	5,000.00	1,643.98	132.9%
Total 6550-00 · REPAIRS/MAINTENANCE - AIRSIDE	44,225.44	87,500.00	-43,274.56	50.5%
6551-00 · REPAIRS/MAINTENANCE - LANDSIDE				
6551-01 · R/M - General	0.00	1,250.00	-1,250.00	0.0%
6551-02 · R/M - Parking Lot	2,087.44	3,275.00	-1,187.56	63.7%
6551-03 · R/M - Landscaping	648.50	2,000.00	-1,351.50	32.4%
Total 6551-00 · REPAIRS/MAINTENANCE - LANDSIDE	2,735.94	6,525.00	-3,789.06	41.9%
6560-00 · SECURITY EXPENSE				
6560-01 · Security - General	3,586.80	10,000.00	-6,413.20	35.9%
6560-02 · Security - Law Enf. Offi. (LEO)	1,360.00	10,000.00	-8,640.00	13.6%
6560-03 · Security - Subscription Licen.	15,325.00	58,440.00	-43,115.00	26.2%
6560-04 · Security - Perim./Access/CCTV	6,385.41	17,600.00	-11,214.59	36.3%
6560-05 · Security - Professional Serv.	0.00	22,500.00	-22,500.00	0.0%
6560-06 · Security - Prof. Services/IT	553.57	12,000.00	-11,446.43	4.6%
Total 6560-00 · SECURITY EXPENSE	27,210.78	130,540.00	-103,329.22	20.8%
6570-00 · REPAIRS/MAINT.-AERONAUTICAL EQU				
6570-01 · R/M Aeronautical Equip - NDB/DME	4,118.40	5,500.00	-1,381.60	74.9%
6570-02 · R/M Aeronautical Equip. - Tower	4,206.06	4,500.00	-293.94	93.5%
6570-04 · R/M Aeron. Equip. - AWOS/ATIS	4,118.40	5,500.00	-1,381.60	74.9%
Total 6570-00 · REPAIRS/MAINT.-AERONAUTICAL EQU	12,442.86	15,500.00	-3,057.14	80.3%
Total "B" EXPENSES - OPERATIONAL	255,445.51	443,005.00	-187,559.49	57.7%
Total "B" EXPENDITURES	882,649.29	861,217.00	21,432.29	102.5%

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	Oct '17 - Feb 18	Budget	\$ Over Budget	% of Budget
"C" EXPENSES				
7001-00 · CAPITAL EXPENDITURES				
7001-0* · CONTINGENCY	0.00	10,000.00	-10,000.00	0.0%
7001-02 · Buildings and Improvements	0.00	15,000.00	-15,000.00	0.0%
7001-04 · Office Equipment	10,903.46	27,000.00	-16,096.54	40.4%
7001-05 · Maintenance Equipment/Vehicle	17,783.00	24,250.00	-6,467.00	73.3%
7001-06 · Assessments/Plans/Studies	7,440.00	110,000.00	-102,560.00	6.8%
7001-09 · Security Equipment	0.00	45,500.00	-45,500.00	0.0%
Total 7001-00 · CAPITAL EXPENDITURES	36,126.46	231,750.00	-195,623.54	15.6%
7110-00 · DOT/SCADGP				
7110-01 · DOT/SCASGP	0.00	250,000.00	-250,000.00	0.0%
7110-02 · DOT/SCASGP - FMAA	0.00	10,405.00	-10,405.00	0.0%
Total 7110-00 · DOT/SCADGP	0.00	260,405.00	-260,405.00	0.0%
7500-00 · IDAHO STATE GRANT PROGRAM				
7500-18 · '18 ITD Grant (SUN-17 ITD/FMA)	0.00	50,000.00	-50,000.00	0.0%
Total 7500-00 · IDAHO STATE GRANT PROGRAM	0.00	50,000.00	-50,000.00	0.0%
7542-00 · AIP '42 EXPENSE - AC Apron Dsgn				
7542-01 · AIP '42 - Eligible	0.00	0.00	0.00	0.0%
7542-02 · AIP '42 Non-Eligible	0.00	0.00	0.00	0.0%
Total 7542-00 · AIP '42 EXPENSE - AC Apron Dsgn	0.00	0.00	0.00	0.0%
7543-00 · AIP '43 EXPENSE - Air Carr. Apr				
7543-01 · AIP '43 - AC Apron - Eligible	121,587.97	0.00	121,587.97	100.0%
7543-02 · AIP '43 - Parking - Non-Eligibl	721.27	0.00	721.27	100.0%
7543-03 · AIP '43 - SRE Equipment	296,227.50	325,000.00	-28,772.50	91.1%
7543-04 · AIP '43 - RPZ Land Acquisition	0.00	141,250.00	-141,250.00	0.0%
7543-05 · AIP '43 - Retainer - Eligible	-14,740.00			
Total 7543-00 · AIP '43 EXPENSE - Air Carr. Apr	403,796.74	466,250.00	-62,453.26	86.6%
7544-00 · AIP '44 EXPENSE RPZ EA				
7544-01 · AIP '44 - Eligible	19,410.20	78,750.00	-59,339.80	24.6%
Total 7544-00 · AIP '44 EXPENSE RPZ EA	19,410.20	78,750.00	-59,339.80	24.6%
7545-00 · AIP '45 EXPENSE - RPZ Acq.				
7545-01 · AIP '45 - Eligible	2,808.00			
Total 7545-00 · AIP '45 EXPENSE - RPZ Acq.	2,808.00			

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04/17/18

Accrual Basis

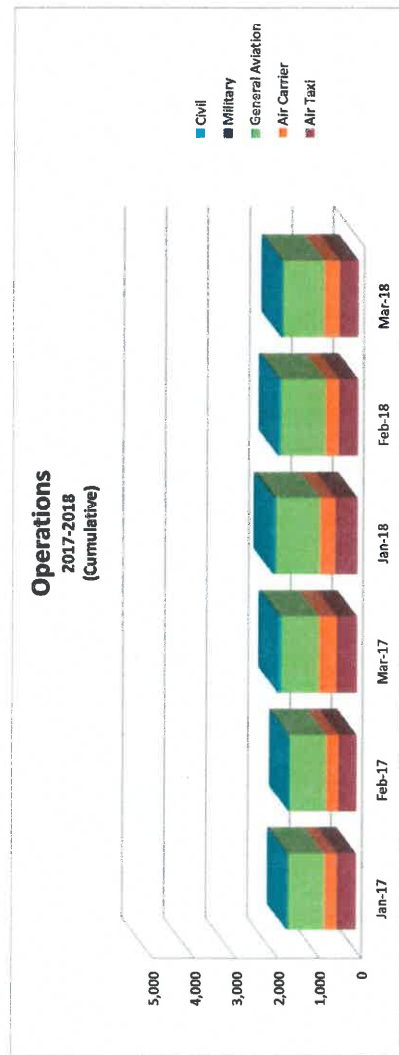
Friedman Memorial Airport
Profit & Loss Budget vs. Actual (COMBINED '18)
 October 2017 through February 2018

	Oct '17 - Feb 18	Budget	\$ Over Budget	% of Budget
9001-00 - PFC 14-09-C-00-SUN	0.00	3,500.00	-3,500.00	0.0%
9001-03 - PFC '14 Master Plan	0.00	3,500.00	-3,500.00	0.0%
Total 9001-00 - PFC 14-09-C-00-SUN	462,141.40	1,090,655.00	-628,513.60	42.4%
Total "C" EXPENSES	1,991,031.06	2,707,211.75	-716,180.69	73.5%
Total EXPENDITURES	1,991,031.06	2,707,211.75	-716,180.69	73.5%
Total Expense	186,230.76	-552,147.25	738,378.01	-33.7%
Net Ordinary Income	186,230.76	-552,147.25	738,378.01	-33.7%
Net Income				

Friedman Memorial Airport
March 2018

ATCT Traffic Operations Record																		
Month	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
January	3,622	3,893	3,912	2,600	3,028	2,787	4,547	2,520	2,070	2,379	2,408	2,098	2,454	2,128	2,249	1,842	1,665	2,019
February	4,027	4,498	3,073	3,122	3,789	3,597	3,548	2,857	2,244	2,647	2,117	2,205	2,612	1,417	2,268	2,533	1,629	1,914
March	4,952	5,126	3,086	4,097	3,618	2,918	4,677	3,097	2,145	2,709	1,813	1,921	2,753	1,924	2,023	1,917	1,995	1,860
April	2,494	3,649	2,213	2,840	2,462	2,047	2,581	2,113	1,724	1,735	1,604	1,513	1,509	1,210	1,337	1,380	1,426	0
May	3,905	4,184	2,654	3,282	2,729	2,134	1,579	2,293	2,280	1,891	1,533	1,693	1,852	555	668	1,501	1,802	0
June	4,787	5,039	4,737	4,438	3,674	3,656	5,181	3,334	2,503	3,019	2,898	2,761	3,203	2,164	2,387	2,475	2,502	0
July	6,359	8,796	6,117	5,910	5,424	5,931	7,398	4,704	4,551	5,005	5,004	4,810	5,345	4,345	4,159	4,562	4,573	0
August	6,479	6,917	5,513	5,707	5,722	6,087	8,196	4,570	4,488	4,705	4,326	3,823	4,644	3,114	2,932	3,719	3,873	0
September	3,871	4,636	4,162	4,124	4,609	3,760	4,311	2,696	3,376	3,128	3,359	2,396	2,403	2,237	2,292	2,379	2,036	0
October	3,879	3,656	3,426	2,936	3,570	3,339	3,103	2,134	2,145	2,012	1,886	1,658	1,874	1,760	1,789	1,377	1,939	0
November	3,082	2,698	2,599	2,749	2,260	2,912	2,892	1,670	1,901	1,309	1,114	1,325	1,475	908	1,229	1,314	1,135	0
December	3,401	2,805	3,247	3,227	2,722	3,834	2,699	1,848	2,272	1,811	2,493	2,066	2,016	1,545	1,482	1,717	2,217	0
Totals	50,858	55,897	44,739	45,032	43,607	43,002	50,712	33,636	31,699	32,350	30,555	28,269	32,140	23,307	24,815	26,716	26,692	5,793

ATCT Operations Change (2018 vs. 2017)			
	2018	2017	% Change
Air Taxi	451	488	-8%
Air Carrier	363	415	-13%
General Aviation	1,005	926	9%
Military	3	2	50%
Civil	38	64	-41%
Total	1,860	1,895	-1.85%
YTD Total	5,793	5,189	11.64%



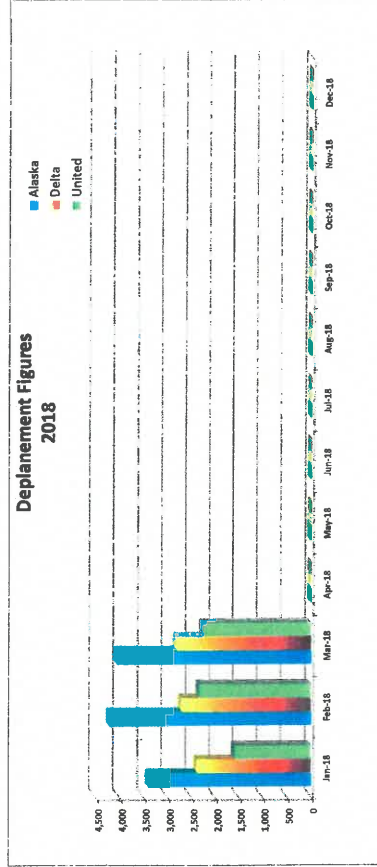
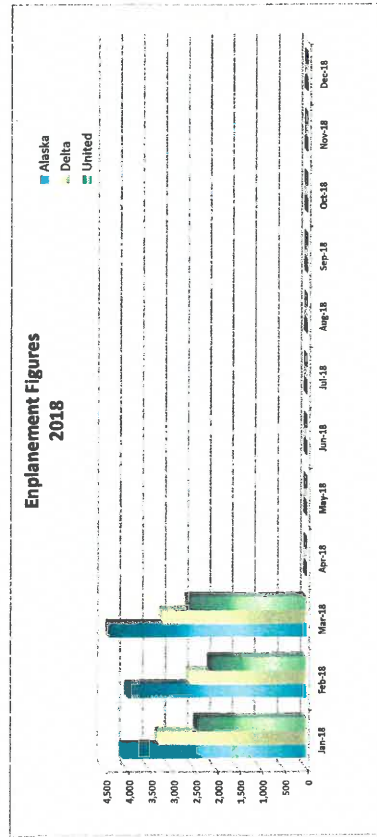
Friedman Memorial Airport
March 2018

Date	2018 Enplanements						2018 Deplanements											
	Alaska Airlines			Delta Airlines			United Airlines			United Airlines								
	Revenue	Non-Revenue	Total	Prior Year Month	Total % Change	Revenue	Non-Revenue	Total	Prior Year Month	Total % Change	Revenue	Non-Revenue	Total	Prior Year Month	Total % Change	Total Enp.	Prior Year Total Enp.	Total % Change
Jan-18	3,985	66	4,051	3,536	15%	3,251	30	3,281	2,685	22%	2,383	47	2,430	1,519	60%	9,762	7,740	26.1%
Feb-18	3,856	93	3,949	3,340	18%	2,542	60	2,602	2,556	2%	2,081	48	2,129	1,645	29%	8,680	7,541	15.1%
Mar-18	4,293	86	4,379	3,867	13%	3,146	47	3,193	4,944	-35%	2,551	72	2,623	2,120	24%	10,195	10,931	-6.7%
Totals	12,134	245	12,379	10,743	15%	8,939	137	9,076	10,185	-11%	7,015	167	7,182	5,284	36%	28,637	26,212	9.3%

Legend for Chart:

Date	2018 Enplanements						2018 Deplanements											
	Alaska Airlines			Delta Airlines			United Airlines			United Airlines								
	Revenue	Non-Revenue	Total	Prior Year Month	Total % Change	Revenue	Non-Revenue	Total	Prior Year Month	Total % Change	Revenue	Non-Revenue	Total	Prior Year Month	Total % Change	Total Dep.	Prior Year Total Dep.	Total % Change
Jan-18	3,310	67	3,377	2,902	16%	2,327	45	2,372	2,053	16%	1,536	47	1,583	1,276	24%	7,332	6,231	17.7%
Feb-18	4,094	94	4,188	3,771	11%	2,662	46	2,708	2,344	16%	2,305	27	2,332	1,759	33%	9,228	7,874	17.2%
Mar-18	3,942	91	4,033	3,800	6%	2,760	62	2,822	4,386	-36%	2,214	53	2,267	1,982	14%	9,122	10,168	-10.3%
Totals	11,346	252	11,598	10,473	11%	7,749	153	7,902	8,783	-10%	6,055	127	6,182	5,017	23%	25,682	24,273	5.8%

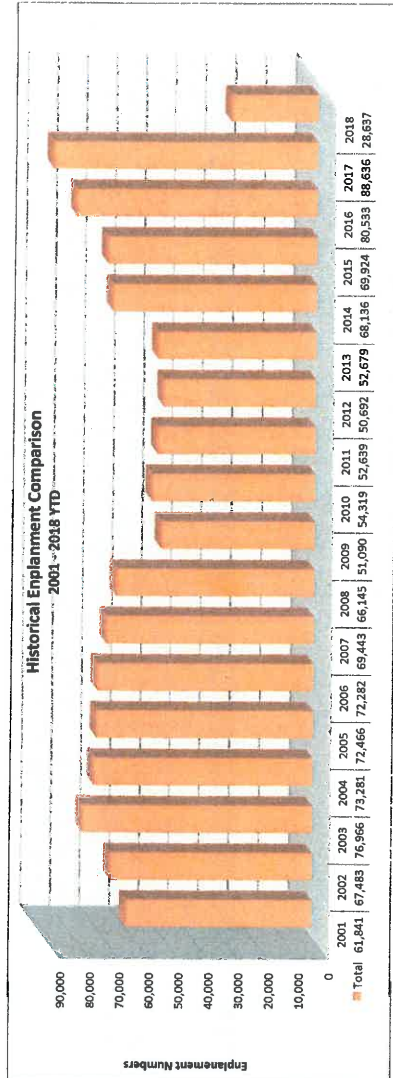
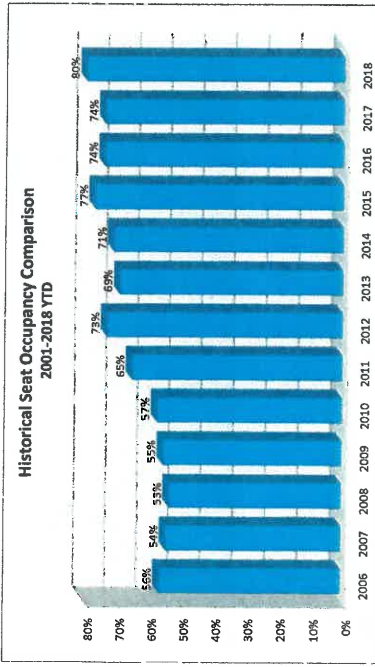
Legend for Chart:



Friedman Memorial Airport
March 2018

Date	Alaska Airlines					Delta Airlines					United Airlines					Seat Occupancy Totals					Seat Occupancy Totals Prior Year Comparison				
	Departure Flights	Seats Available*	Seats Occupied	Percent Occupied	Departure Flights	Seats Available	Seats Occupied	Percent Occupied	Departure Flights	Seats Available	Seats Occupied	Percent Occupied	Total Seats Available	Total Seats Occupied	Total Percent Occupied	Prior Year % Change Total Seats Available	Prior Year % Change Total Seats Occupied	Prior Year % Change Total % Occupied							
Jan-18	72	5,472	4,051	74%	56	3,696	3,281	89%	48	3,168	2,430	77%	12,336	9,762	79%	19%	26%	6%							
Feb-18	67	5,092	3,949	78%	47	3,102	2,602	84%	46	3,036	2,129	70%	11,230	8,680	77%	8%	15%	6%							
Mar-18	76	5,776	4,379	76%	52	3,432	3,193	93%	48	3,168	2,623	83%	12,376	10,195	82%	-15%	-7%	9%							
Totals	215	16,340	12,379	76%	155	10,230	9,076	89%	142	9,372	7,182	77%	35,942	28,637	80%	2%	24%	22%							

Note: Total of 68 Seats Available on aircraft for summer months
Total of 76 Seats Available on aircraft for winter months
*Seats are capped at 68 during some periods in the summer due to weight and balance requirements and other times of the year seats may be capped due to environmental conditions



Chris Pomeroy

From: Spencer Dickerson <Spencer.Dickerson@aaae.org>
Sent: Saturday, April 14, 2018 1:07 PM
To: Spencer Dickerson
Subject: Update - Positive Contract Tower Provisions in House FAA Reauthorization Bill

Follow Up Flag: Flag for follow up
Flag Status: Flagged

TO: Airports in the FAA Contract Program and ATC Contractors

We have very good news to report regarding the contract tower program on the bipartisan FAA reauthorization bill (H.R. 4) that was introduced in the House last Friday by the leaders of the T&I Committee. These long overdue reforms to the program, once passed by Congress, will provide much needed stability to the contract tower program and will remove the uncertainty that has been hanging over the program for the past few years.

Below are the highlights of the bill:

1. Except for cost share towers, the bill eliminates the requirement for an annual b/c analysis unless an airport's annual air traffic drops by more than 25 percent in a single year or 55 percent over a three-year period.
2. Removes the 2014 FAA-imposed moratorium on the new airport applicants to the program and requires annual b/c analysis on the cost share towers.
3. Lifts the cap on AIP eligibility for contract tower construction/equipment for new or replacement towers.
4. Prohibits FAA from adding non-site specific/indirect costs to the b/c analysis.
5. Ensures that airports have adequate time to appeal and review their individual b/c analysis.
6. Adds 10 percentage points to an airport's b/c to capture non-quantifiable benefits. With the current law of a max of 20 percent for cost share payments, this change means airports in the cost share program would pay no more than 10 percent of the operating costs of the tower.

The full House is expected to consider H.R. 4 the week of April 23.

Thanks!

Spencer Dickerson

Chris Pomeroy

From: Spencer Dickerson <Spencer.Dickerson@aaae.org>
Sent: Friday, April 20, 2018 11:24 AM
To: Spencer Dickerson
Subject: FINAL Senate Contract Tower Approps Letters
Attachments: 20180419 - FY 2019 Approps Letter re Contract Tower Funding Final.pdf

TO: Airports in the FAA Contract Tower Program and ATC Contractors

Attached is the final FY 2019 Senate contract tower appropriations group letter sent yesterday to the leaders of the Senate Transportation (THUD) Appropriations Subcommittee. The letter was led by Senators Jim Inhofe (R-OK) and Richard Blumenthal (D-CT).

We had an **RECORD** number of **51** Senators on the letter (13 Republicans and 38 Democrats). Getting over half of the Senate on the letter is outstanding!! Thanks very much for the outreach all of the airports and ATC contractors did the last few weeks to get this very positive response! Your collective efforts clearly made a difference.

Please review the letter and if your Senator(s) signed the letter, **please** take a quick moment to send their respective staff a thank you email for signing the letter. These thank you's will be greatly appreciated!

Thanks again!

Spencer Dickerson, C.M.
Senior Executive Vice President for Global Operations
AAAE/IAAE
601 Madison St., 4th Floor
Alexandria, VA 22314
phone 703/824-0500, ext. 130
sdickerson@aaae.org

United States Senate

WASHINGTON, DC 20510

April 19, 2018

The Honorable Susan Collins
Chairman
Subcommittee on Transportation,
Housing and Urban Development,
and Related Agencies
Committee on Appropriations
United States Senate
Washington, DC 20510

The Honorable Jack Reed
Ranking Member
Subcommittee on Transportation,
Housing and Urban Development,
and Related Agencies
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Chairman Collins and Ranking Member Reed:

As you consider the Fiscal Year 2019 Transportation, Housing and Urban Development, and Related Agencies Appropriations bill, we urge you to include language ensuring full and dedicated funding for the Contract Tower Program as part of the Fiscal Year (FY) 2019 budget for the Federal Aviation Administration (FAA).

Full and dedicated funding for the Contract Tower Program is critical to ensuring that operations continue through FY 2019 at the 254 Federal Aviation Administration contract towers across the country. Restricting or reducing the operations of contract towers would have a substantial, negative impact on general aviation safety, the efficiency of large commercial airports, disaster relief and emergency medical operations, law enforcement, agriculture activities and businesses throughout the United States. In addition, many contract tower airports are located near or adjacent to military bases and manage a substantial number of military-related and national security operations, directly supporting the readiness and training of military units. In 2016, 47 percent of all military traffic at civilian airports was handled by a federal contract tower.

The contract tower program is one of the FAA's most cost-effective programs. Contract towers handle approximately 28 percent of the nation's air traffic control tower operations, yet they account for only 14 percent of the FAA's total tower operations budget. Additionally, the average contract tower operates at one-third the cost of a federal control tower, though it is held to the same standard of excellence.

Providing full and dedicated funding language for the Contract Tower Program is necessary to ensure FAA appropriately funds the program as it manages the budgetary constraints of the coming fiscal year. It will provide certainty to local communities and protect this important and long-standing aviation safety program from being targeted for disproportionate cuts or elimination of service at certain airports.

As Congress has done in past fiscal years, we urge you to include full and dedicated funding for the Contract Tower Program in the Fiscal Year 2019 Transportation, Housing and Urban Development, and Related Agencies Appropriations bill. Contract towers have played a central role in managing the safety and efficiency of our nation's complex airspace for over three decades, and we look forward to working with you to preserve and promote their future success.

Sincerely,



James M. Inhofe
United States Senator



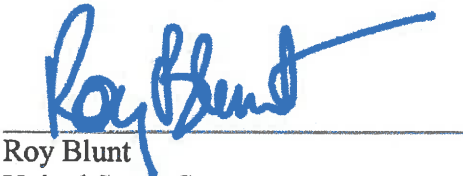
Richard Blumenthal
United States Senator



Tammy Baldwin
United States Senator



Michael F. Bennet
United States Senator



Roy Blunt
United States Senator



Sherrod Brown
United States Senator



Maria Cantwell
United States Senator



Benjamin L. Cardin
United States Senator



Robert P. Casey, Jr.
United States Senator



Bill Cassidy M.D.
United States Senator



John Cornyn
United States Senator



Catherine Cortez Masto
United States Senator



Mike Crapo
United States Senator



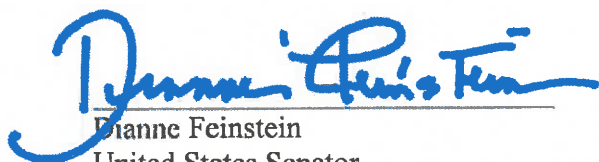
Joe Donnelly
United States Senator



Tammy Duckworth
United States Senator



Richard J. Durbin
United States Senator



Dianne Feinstein
United States Senator



Cory Gardner
United States Senator



Kirsten Gillibrand
United States Senator



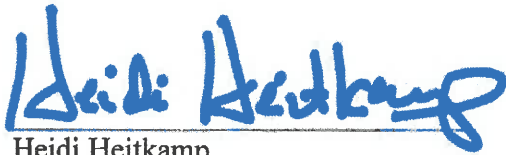
Kamala D. Harris
United States Senator



Margaret Wood Hassan
United States Senator



Martin Heinrich
United States Senator



Heidi Heitkamp
United States Senator




Mazie K. Hirono
United States Senator



John Hoeven
United States Senator



Johnny Isakson
United States Senator



Tim Kaine
United States Senator



John Kennedy
United States Senator



Amy Klobuchar
United States Senator



Joe Manchin III
United States Senator



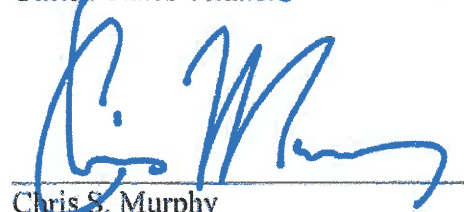
Edward J. Markey
United States Senator



Robert Menendez
United States Senator



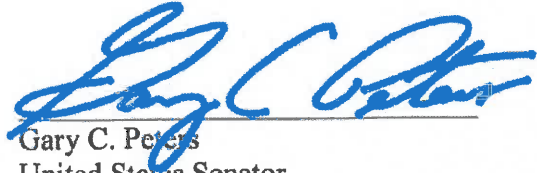
Jeffrey A. Merkley
United States Senator



Chris S. Murphy
United States Senator



Bill Nelson
United States Senator



Gary C. Peters
United States Senator



James E. Risch
United States Senator



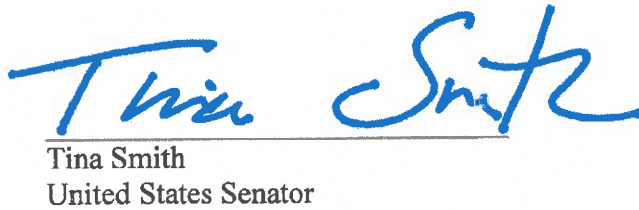
M. Michael Rounds
United States Senator



Brian Schatz
United States Senator



Jeanne Shaheen
United States Senator



Tina Smith
United States Senator



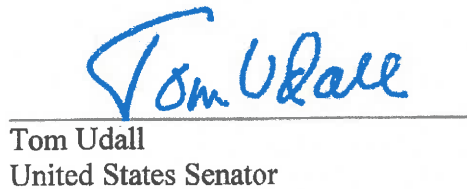
Debbie Stabenow
United States Senator



Dan Sullivan
United States Senator



Jon Tester
United States Senator



Tom Udall
United States Senator



Chris Van Hollen
United States Senator



Mark R. Warner
United States Senator




Elizabeth Warren
United States Senator



Roger F. Wicker
United States Senator



Ron Wyden
United States Senator



Cory A. Booker
United States Senator



900 S. Broadway, Suite 350, Denver, CO 80209
Main 303.524.3030 Fax 303.524.3031
JVATION.COM

MEMO

DATE: April 24, 2018

TO: Chris Pomeroy, SUN Airport Manager

FROM: Greg Dyer, Jviation

CC:

RE: SUN Tower Replacement Alternatives Analysis Summary

MEMO:

From 2013-2015, the airport completed a \$35 million Federal Aviation Administration (FAA) Airport Improvement Program (AIP) funded capital development project. This multi-year, multi-phased project was necessary to address a non-standard Runway Safety Area (RSA) at the airport and to meet a Congressional mandate that all Part 139 airports have a compliant RSA by the end of calendar year 2015. While the RSA was made fully compliant with FAA design standards per the intent of the Congressional mandate, due to the airport's location in a mountainous valley and limited space, several Modification to Standards (MOS) were approved by the FAA to address other standards issues to allow the airport to operate in its current condition. One such MOS is a non-standard runway Object Free Area (OFA) on the east side of the runway. The OFA is penetrated by the airport security fence, Highway 75, and the ATCT. As part of the MOS approval process for the OFA MOS, the FAA is requiring relocation of the ATCT by the year 2023.

The recently updated Friedman Memorial Airport Master Plan includes a preliminary analysis of five possible ATCT replacement sites. The analysis in the master plan considers a traditional tower structure only. Over the course of the past few years however, evolution in the use of technology as a replacement for ATCT has become a viable option for Friedman Memorial Airport Authority (FMAA) to consider. Specifically, automation processing speed and digital camera technology have improved to the point that it is now possible to replace an ATCT with a set of cameras to create a "virtual" tower facility using Digital Tower Technology (DTT).

To this end, FMAA has tasked Jviation, Inc. to analyze ATCT replacement strategies available to airport management and FMAA. Options include a legacy tower option (sticks and bricks facility), and FAA Next Generation (NextGen) DTT. The analysis includes an assessment of general timelines, costs, steps, uncertainties and opportunities. The goal of the study process is to provide FMAA information so that an initial direction can be established by the Board in moving forward with ATCT replacement.

Following is a summary of the options for discussion with FMAA.

LEGACY ATCT OPTION

The cost estimate for a replacement, legacy ATCT facility was based on a site near the Terminal Building footprint as identified in the 2017 draft Friedman Memorial Airport Master Plan as site 1. Site 1 is located on the south side of the terminal building. The estimate and initial planning is based on the needs for site 1, however the planning was kept general enough that the cost estimate is applicable for essentially any of the sites possible on the airport. The primary variable siting is the location relative to the airport - the closer the structure is to the mid-point of the runway and the closer it is to the runway, the less tall it has to be. Site 1 appears to be optimal.

The cost estimate assumes an approximate 80' total structure height at site 1. If another site was chosen, the basic site preparation work and infrastructure costs would be the same, but if the location relative to the runway was more challenging, a taller tower would generate increased costs.

The process to construct a legacy ATCT facility would be a 3-5 year project. While the actual construction would take 6-9 months, the siting study, engineering, connectivity to telecommunications and IT, and the project management process would result in a 3-5 year timeline based on consultant team experience with similar sized facilities.

The specific final siting requirements are a product of an FAA tower siting process that can be quite extensive. The full process can become complex and expensive, however with the consultants' experience, there is confidence the process will not require the entire spectrum of possibilities.

The largest cost component of the traditional tower is the tall structure, but there is a sizable component that comprises the necessary tower equipment and project management necessary to equip normal operations and to achieve FAA acceptance at the conclusion of the project.

There are other considerations to consider with a new legacy tower option. Tall ATCTs are not efficient buildings from an architectural standpoint. They typically are much taller than any other buildings nearby, are unique in terms of building codes, present fire-life-safety challenges, and are costly to maintain. They serve their purpose, but they are awkward from nearly any other cost or community design perspective.

DIGITAL TOWER TECHNOLOGY OPTION

There is an appeal of being able to avoid the costs of a tall ATCT with an alternative that is more flexible in terms of location and more practical accommodating and protecting the people inside. As a result, several companies prototyped non-conventional ATCT facility configurations. In the past ten years, several European airports have participated in live trials for DTT prototypes. However, the initial airports included in these efforts are very low traffic volume airports, far below Friedman Memorial Airport activity.

The early successes at small airports have allowed the various vendors to learn and innovate, and the current DTT environment includes a prototype installation in the United States at Leesburg, VA. This facility has been in a test phase for nearly two years and is expected to become fully certified and operational in the next 18-24 months. A DTT project at Ft. Collins-Loveland airport in Colorado is in the early stages of development, and perhaps most significantly, a DTT installation has been fully certified for use at the Budapest, Hungary airport which notably served 13 million passengers in 2017.

Because DTT solutions are not yet fully certified and implemented in the U.S. air traffic control system, there are variables for the Friedman Memorial Airport Authority to consider. The FAA is working to develop a baseline of requirements regarding human factors and certification steps, along with establishing a qualified vendor list. They are using the prototype efforts underway at Leesburg and Ft. Collins to define the requirements. The uncertainties of how the requirements could evolve, and the yet-to-be completed certification process could cause some requirement "creep". However the information we currently have regarding these processes (William E. Payne & Associates) is the most up-to-date knowledge available.

Another variable is the human factors discussion around this emerging technology. There are many innovative ideas being proposed as more people imagine how the technology could be developed. It is possible enhanced capabilities could become available and even be perceived as essential. While this evolution would be a move upwards, it could create additional cost. The FAA's general approach is to keep some enhancements in the form of "add on" options instead of required elements, but this is an area that could change.

Some of the enhancements could be the addition of an infra-red camera for night-time surveillance of the airport or enhanced digital processing of the camera feeds to highlight items for controller attention.

There are four primary vendors offering DTT solutions for air traffic control towers today. They are:

- ◆ SaabSensis
- ◆ SeaRidge
- ◆ Frequentis
- ◆ Kongsberg

At least two others are emerging. The basic components of the systems are similar - a camera array to provide visual surveillance and the other elements from the FAA's tower equipment list to fulfill the other functions of the tower (radio communications/weather information/administrative).

The general cost projection indicates the combined cost of the DTT equipment and the other required equipment, plus a one-story facility to house the operation, will be slightly less than the cost of a legacy ATCT facility.

Table 1 below includes a summary of costs related to the traditional ATCT replacement and the DTT solution paths.

TABLE 1 – SUN AIR TRAFFIC CONTROL TOWER REPLACEMENT OPTIONS - COST ESTIMATE COMPARISON

TRADITIONAL ATCT		DIGITAL TOWER SYSTEM	
ATCT and Base Building	2,406,718	Airfield Infrastructure	895,375
Site Work	214,831	Digital Tower Facility Building	651,854
Air Traffic Control Equipment	445,000	Camera Surveillance System	668,000
Fees (Tower Design and General Conditions)	849,289	ATCT Minimum Equipment List	375,000
Contingency	361,008	Communications and Power	115,000
		Contingency (20%)	612,846
		Fees (Facility Design and General Conditions)	364,915
Total	4,276,846	Total	3,682,990
ADS-B	359,000	ADS-B	359,000

Source: William E. Payne & Associates

ADS-B AIRCRAFT SURVEILLANCE

FMA is not currently covered by radar coverage close to the airport. Generally, radar coverage ends at 13,000 feet MSL. This gap in radar coverage means Salt Lake City Air Route Traffic Control Center (ARTCC) has to use procedural separation for aircraft near FMA causing delays and efficiency problems. Remedying this situation would enhance not only efficiency, but it would give the controllers a more complete ability to monitor inbound aircraft positions and anticipate the relative proximities of aircraft. This improved situational awareness would add to the safety redundancies at FMA. It would therefore be desirable to address the issue of radar gaps during the same timeframe as replacing and enhancing the ATCT.

Current technology offers alternatives to address these radar gaps. The most flexible surveillance method to accurately pinpoint aircraft locations is called Automatic Dependent Surveillance-Broadcast (ADS-B).

While there are several technical options to address this problem including legacy radar and wide-area multilateration, each would carry significant cost. Initial analysis of ADS-B coverage indicates one additional sensor located on or near SUN would enhance the surveillance to a degree that would meet all air traffic control needs. (The closest existing ADS-B sensor is in Jerome, ID).

The costs of an ADS-B installation solution are included in **Table 1**. They are included in the costs of the project for the purposes of this analysis. However, it is a separate item and ideally should be addressed whether the FMAA selects a legacy ATCT or a DTT system.

TIMELINE

The required timeline for either option is similar, approximately 3-5 years. Since the 2023 requirement in the FAA Modification-to-Standards is five years away, this means a decision on which option to pursue should be made by this fall to begin the process.

Another important factor in timing is the currently-under-consideration FAA Reauthorization bill (H.R. 4). Paragraph 510 of this bill authorizes the FAA to pursue two DTT facility installations at airports with existing Federal Contract Towers. Regardless of whether FMAA chooses a traditional tower path or a DTT facility path, continued coordination and communication with the FAA's Airports District Office and FAA Headquarters will be critical. It is important that SUN be identified as one of the two facilities allowed in the legislation as a DTT facility, and regardless of how well the replacement effort goes, thorough partnership with the FAA Airports District Office is an essential component to allow them to optimize FAA funding and planning support to the Friedman Memorial Airport.



To: CHRIS POMEROY, FRIEDMAN MEMORIAL AIRPORT

From: Chris Sandfoss

Cc: Rob Adams

Date: 11/28/2017

Re: SUN Peak Day Noise Modeling Methodology

INTRODUCTION

This memo summarizes the methodology and results of the 2017 average-annual day and peak day noise analysis for Friedman Memorial Airport (SUN). This analysis focused on three operating conditions at SUN as described below:

1. 2017 Average-Annual Day: This scenario assessed typical conditions at SUN based upon the average daily number of operations. For this scenario, the total number of operations during the most recent 12-month period was calculated and divided by 365 to determine the average-annual operating levels.
2. 2017 Peak Month - Average Day: This scenario is based on the average day of the peak operating month at SUN. For this scenario, the total number of operations during the during the busiest month over the last 12-month period (July 2017) was calculated and divided by 31 to determine the peak month average day operating levels.
3. 2017 Peak Day: This scenario is based on the day with the highest total operations over the last 12 months (August 22nd).

PROPERTIES AND MEASUREMENT OF NOISE

Sound is created by a source that induces vibrations in the air. Sound is measured using the logarithmic decibel (dB) scale. The range of audible sound ranges from approximately 1 to 140 dB, although everyday sounds rarely rise above about 120 dB and typically, ambient (background) noise levels usually are in the 40-50 dB range depending upon whether the setting is urban or rural.

There are many ways to describe and measure sound. Sounds can be defined in terms of four components, level, pitch, duration, and propagation. Sound level is

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simply a measure of amplitude or “loudness” of a sound. Pitch or frequency is based on the spacing of sound vibrations or wavelength that determines whether or not the noise is low (such as a rumble) or high (such as a whistle). Duration refers to the length of time during which a sound is audible. Propagation refers to the dispersion of noise between the source of the sound and the receptor. As sound waves travel away from the source, the sound energy is distributed over a greater area, dispersing the sound energy. Propagation is affected by several factors, including distance, weather (wind, temperature, and humidity), and other features such as soft ground or trees that may absorb some of the sound energy.

Given the multiple dimensions of sound, a variety of descriptors, or metrics, have been developed for describing sound and noise. The 2017 average-annual day and peak day noise analysis for SUN used the following common noise metrics:

1. Maximum Level (Lmax)
2. Number of Events Above Level (NA)
3. Equivalent Sound Level (Leq)
4. Day-Night Average Sound Level (DNL)

Maximum Level (Lmax)

Lmax is simply the highest sound level recorded during an event or over a given period of time. Lmax, however, fails to provide any information about the duration of the sound event. This can be a critical shortcoming when comparing different sounds. Even if they have identical Lmax values, sounds of greater duration contain more sound energy than sounds of shorter duration.

Number of Events Above Level (NA)

The Number of Events Above (NA) metric indicates the total number of aircraft events at particular location that exceed a given sound level threshold in dB. The NA metric explicitly provides information about the number of sound events, although it conveys no information about the duration of the event(s). The particular noise threshold can be set to whatever level is appropriate for the situation being studied. Typically 65 dB is used, in which case the metric is abbreviated NA65.

Equivalent Sound Level (LEQ)

The equivalent sound level (Leq) metric may be used to define cumulative noise dosage, or noise exposure, over a period of time. In computing Leq, the total noise energy over a given period of time, during which numerous events may have occurred, is logarithmically averaged over the time period. The Leq represents the steady sound level that is equivalent to the varying sound levels actually occurring during the period of observation. For example, an 8-hour Leq of 67 dB indicates that

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the amount of sound energy in all the peaks and valleys that occurred in the 8-hour period is equivalent to the energy in a continuous sound level of 67 dB. Leq is typically computed for measurement periods of 1 hour, 8 hours, or 24 hours, although any time period can be specified.

Day-Night Average Sound Level (DNL)

The Day-Night Average Sound Level (DNL) metric is a variation of the 24-hour Leq metric. Like Leq, the DNL metric describes the total noise exposure during a given period. Unlike Leq, however, DNL, by definition, can only be applied to a 24-hour period. In computing DNL, an extra weight of 10 dB is assigned to any sound levels occurring between the hours of 10:00 p.m. and 7:00 a.m. This is intended to account for the greater annoyance that nighttime noise is presumed to cause for most people. Due to the logarithmic nature of the dB scale, this extra weight treats one nighttime noise event as equivalent to 10 daytime events of the same magnitude.

DNL is the standard metric used for environmental noise analysis per Federal requirements, including airport noise studies. Residential land uses are normally incompatible with noise levels at or above 65 DNL.

Due to the different ways in which noise can be perceived by different people, this analysis used the Lmax, NA, and DNL metrics to describe noise conditions. However, per Federal requirements, only DNL may be used to determine the significance of impacts for Federal noise mitigation funding. Other metrics are reported for informational purposes. The relationship between these metrics is shown in **Figure 1**. This graph shows a hypothetical example of continuous noise levels over a twenty minute period during which time several noise "events" occurred as shown by the blue line. In this example, five noise events occurred that caused noise levels to rise above background levels. Each of these five events has an Lmax value and the overall Lmax during the 20-minute period is 87.8 dB. The Leq, averaged over the 20-minute period, is 70.3. The NA65 value is four, since only four of the five events have an Lmax exceeding 65 dB. Note that DNL is not reported because this example does not cover a full 24-hour period.

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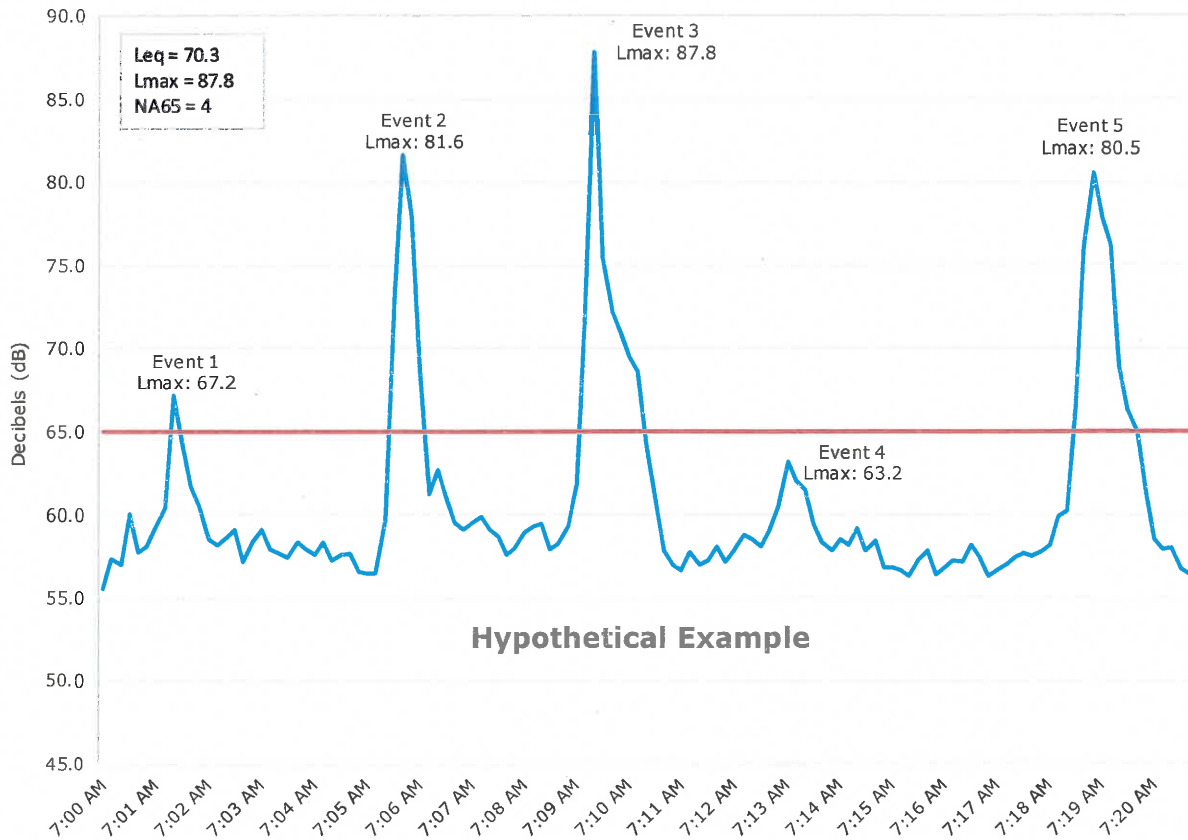
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Figure 1, Relationship Between Noise Metrics



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NOISE MODELING METHODOLOGY

This noise analysis was conducted using the Federal Aviation Administration (FAA) Aviation Environmental Design Tool (AEDT) Version 2d. Inputs into the AEDT include the total number of aircraft operations, aircraft type, daytime (7:00 am to 9:59 pm) or nighttime (10:00 pm to 6:59 am) operations, the percent of time each runway end is used for arrival and departure, flight paths to and from the runway ends, and the percent distribution on each flight path.

Number of Operations and Fleet Mix: The total number of operations that was modeled for each of the scenarios at SUN is based on the FAA Operational Network (OPSNET) database. The total number of operations for each scenario is listed below.

	Arrivals	Departures	Total
Average-Annual Day	34.7	34.7	69.4
Peak Month Average Day	65.2	65.3	130.5
Peak Day	120.0	120.0	240.0

The aircraft fleet mix that would be modeled for each scenario is based on the FAA Traffic Flow Management System Counts (TFMSC) database and data provided by the Friedman Memorial Airport Authority (FMAA). **Table 1** provides a detailed list of average-annual day operations at SUN, organized by aircraft type and aircraft category. **Table 2** provides a detailed list of the peak month average day operations at SUN, organized by aircraft type and aircraft category. **Table 3** provides a detailed list of the peak day operations at SUN, organized by aircraft type and aircraft category.

Daytime/Nighttime Operations: Data on the ratio of daytime to nighttime operations is based on data from the Draft Environmental Impact Statement (DEIS) and data from FMAA staff. Approximately 98 percent of all operations occur during the daytime (7:00 am to 9:59 pm) and two percent of all operations occur during the nighttime (10:00 pm to 6:59 am). Therefore, this overall ratio was modeled for the three scenarios at SUN.

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Table 1
DISTRIBUTION OF OPERATIONS BY AIRCRAFT CATEGORY –
AVERAGE ANNUAL DAY
Friedman Memorial Airport

Aircraft Type	Noise Model ID	Arrivals		Departures		Total
		Daytime	Nighttime	Daytime	Nighttime	
Regional Jets						
Bombardier Canadair CRJ701	CRJ701	3.9	0.0	3.9	0.0	7.9
Embraer ERJ-145	EMB145	1.5	0.0	1.5	0.0	3.1
<i>Subtotal</i>		<i>5.4</i>	<i>0.1</i>	<i>5.4</i>	<i>0.1</i>	<i>11.0</i>
General Aviation Jets						
Beechcraft Baron 58	BEC58P	0.3	0.0	0.3	0.0	0.6
Cessna Citation 3	CIT3	1.0	0.0	1.0	0.0	2.1
Bombardier Challenger CL30	CL600	1.4	0.0	1.4	0.0	2.8
Bombardier Challenger CL60	CL601	2.6	0.1	2.6	0.1	5.3
Cessna 500 Citation	CNA500	1.2	0.0	1.2	0.0	2.4
Cessna 510 Mustang	CNA510	0.2	0.0	0.2	0.0	0.4
Cessna 525 Citation	CNA525C	0.4	0.0	0.4	0.0	0.7
Cessna 550 Citation Bravo	CNA55B	0.8	0.0	0.8	0.0	1.6
Cessna 560 Citation Encore	CNA560E	0.9	0.0	0.9	0.0	1.9
Cessna 560 Citation Ultra	CNA560U	0.6	0.0	0.6	0.0	1.3
Cessna 560 Citation Excel	CNA560XL	2.2	0.0	2.2	0.0	4.6
Cessna 680 Citation Sovereign	CNA680	0.9	0.0	0.9	0.0	1.8
Cessna Citation X	CNA750	1.1	0.0	1.1	0.0	2.3
Fokker F100	F10062	0.4	0.0	0.4	0.0	0.8
Gulfstream GIV	GIV	0.5	0.0	0.5	0.0	1.0
Gulfstream GV	GV	1.7	0.0	1.7	0.0	3.5
IAI 1125 Astra	IA1125	0.4	0.0	0.4	0.0	0.8
Lear 35	LEAR35	3.0	0.1	3.0	0.1	6.1
Mitsubishi MU3001	MU3001	0.9	0.0	0.9	0.0	1.9
<i>Subtotal</i>		<i>20.6</i>	<i>0.4</i>	<i>20.6</i>	<i>0.4</i>	<i>41.9</i>

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Table 1, (continued)
DISTRIBUTION OF OPERATIONS BY AIRCRAFT CATEGORY –
AVERAGE ANNUAL DAY
Friedman Memorial Airport

Aircraft Type	Noise Model ID	Arrivals		Departures		Total
		Daytime	Nighttime	Daytime	Nighttime	
Propeller Aircraft						
Cessna 172 Skyhawk	CNA172	0.6	0.0	0.6	0.0	1.2
Cessna 208 Caravan	CNA208	2.6	0.1	2.6	0.1	5.2
Cessna 441 Conquest	CNA441	1.8	0.0	1.8	0.0	3.6
De Havilland DHC-6 Twin Otter	DHC6	0.1	0.0	0.1	0.0	0.2
De Havilland Dash-8	DHC830	1.0	0.0	1.0	0.0	2.1
Dornier 228	DO228	0.8	0.0	0.8	0.0	1.6
General Aviation Single Engine Prop	GASEPV	0.6	0.0	0.6	0.0	1.2
Piper Navajo	PA31	0.1	0.0	0.1	0.0	0.2
Shorts SD330	SD330	0.3	0.0	0.3	0.0	0.6
<i>Subtotal</i>		<i>7.8</i>	<i>0.1</i>	<i>7.8</i>	<i>0.1</i>	<i>15.9</i>
Helicopters						
Agusta A-109	A109	0.0	0.0	0.0	0.0	0.0
Bell 212 Huey	B212	0.0	0.0	0.0	0.0	0.1
Bell 222	B222	0.0	0.0	0.0	0.0	0.2
Bell 407	B407	0.0	0.0	0.0	0.0	0.0
Eurocopter EC-130	EC130	0.2	0.2	0.2	0.2	0.6
Robinson R22B	R22	0.0	0.0	0.0	0.0	0.0
Sikorsky S-76 Spirit	S76	0.0	0.0	0.0	0.0	0.0
<i>Subtotal</i>		<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>0.2</i>	<i>1.0</i>
Grand Total		34.1	0.9	34.1	0.9	69.9

Source: FAA TFMSC Database, FMAA, Landrum & Brown, 2017.

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Table 2
DISTRIBUTION OF OPERATIONS BY AIRCRAFT CATEGORY – PEAK MONTH
AVERAGE DAY
Friedman Memorial Airport

Aircraft Type	Noise Model ID	Arrivals		Departures		Total
		Daytime	Nighttime	Daytime	Nighttime	
Regional Jets						
Bombardier Canadair CRJ900	CRJ9-ER	2.4	0.8	3.1	0.0	6.3
Embraer ERJ-145	EMB145	0.0	0.0	0.0	0.0	0.1
Embraer ERJ170-100	EMB170	2.2	0.0	2.2	0.0	4.3
<i>Subtotal</i>		<i>4.6</i>	<i>0.8</i>	<i>5.3</i>	<i>0.0</i>	<i>10.7</i>
General Aviation Jets						
Bombardier BD-700 Global Express	BD700	0.9	0.0	0.9	0.0	1.8
Beechcraft Baron 58	BEC58P	1.0	0.1	1.0	0.1	2.1
Cessna Citation 3	CIT3	0.3	0.0	0.3	0.0	0.7
Bombardier Challenger CL30	CL600	4.2	0.1	4.2	0.1	8.5
Bombardier Challenger CL60	CL601	4.3	0.1	4.3	0.1	8.7
Cessna 500 Citation	CNA500	2.4	0.0	2.4	0.0	4.9
Cessna 510 Mustang	CNA510	0.2	0.0	0.2	0.0	0.5
Cessna 525 Citation	CNA525C	1.5	0.0	1.5	0.0	3.1
Cessna 550 Citation Bravo	CNA55B	3.0	0.1	3.0	0.1	6.1
Cessna 560 Citation Ultra	CNA560U	2.2	0.0	2.2	0.0	4.4
Cessna 560 Citation Excel	CNA560XL	4.4	0.1	4.4	0.1	8.9
Cessna 680 Citation Sovereign	CNA680	1.8	0.0	1.8	0.0	3.6
Cessna Citation X	CNA750	0.9	0.0	0.9	0.0	1.9
Eclipse 500	ECLIPSE500	0.3	0.0	0.3	0.0	0.6
Fokker F100	F10062	1.4	0.0	1.4	0.0	2.9
Falcon 20	FAL20	0.1	0.0	0.1	0.0	0.2
Gulfstream GIV	GIV	2.5	0.1	2.5	0.1	5.0
Gulfstream GV	GV	5.5	0.1	5.5	0.1	11.3
IAI 1125 Astra	IA1125	0.6	0.0	0.6	0.0	1.2
Lear 35	LEAR35	3.6	0.1	3.6	0.1	7.3
Mitsubishi MU3001	MU3001	0.3	0.0	0.3	0.0	0.6
<i>Subtotal</i>		<i>41.3</i>	<i>0.9</i>	<i>41.3</i>	<i>0.8</i>	<i>84.3</i>

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Table 2, (continued)
DISTRIBUTION OF OPERATIONS BY AIRCRAFT CATEGORY – PEAK MONTH
AVERAGE DAY
Friedman Memorial Airport

Aircraft Type	Noise Model ID	Arrivals		Departures		Total
		Daytime	Nighttime	Daytime	Nighttime	
Propeller Aircraft						
Cessna 172 Skyhawk	CNA172	0.0	0.0	0.0	0.0	0.1
Cessna 182 Skylane	CNA182	0.1	0.0	0.1	0.0	0.3
Cessna 206 Stationair	CNA206	0.6	0.0	0.6	0.0	1.2
Cessna 208 Caravan	CNA208	5.1	0.3	5.1	0.3	10.7
Cessna 441 Conquest	CNA441	4.3	0.1	4.3	0.1	8.8
De Havilland DHC-6 Twin Otter	DHC6	0.2	0.0	0.2	0.0	0.5
De Havilland Dash-8	DHC830	2.5	0.1	2.5	0.1	5.1
Dornier 228	DO228	0.7	0.0	0.7	0.0	1.4
General Aviation Single Engine Prop	GASEPV	2.3	0.1	2.3	0.1	4.7
Piper Navajo	PA31	0.2	0.0	0.2	0.0	0.4
Shorts SD330	SD330	0.9	0.0	0.9	0.0	1.8
<i>Subtotal</i>		<i>16.9</i>	<i>0.6</i>	<i>16.9</i>	<i>0.6</i>	<i>35.0</i>
Helicopters						
Agusta A-109	A109	0.0	0.0	0.0	0.0	0.0
Bell 212 Huey	B212	0.0	0.0	0.0	0.0	0.0
Bell 222	B222	0.0	0.0	0.0	0.0	0.1
Bell 407	B407	0.0	0.0	0.0	0.0	0.0
Eurocopter EC-130	EC130	0.2	0.0	0.2	0.0	0.3
Robinson R22B	R22	0.0	0.0	0.0	0.0	0.0
Sikorsky S-76 Spirit	S76	0.0	0.0	0.0	0.0	0.0
<i>Subtotal</i>		<i>0.3</i>	<i>0.0</i>	<i>0.3</i>	<i>0.0</i>	<i>0.5</i>
Grand Total		63.0	2.2	63.8	1.4	130.5

Source: FAA TFMSC Database, FMAA, Landrum & Brown, 2017.

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Table 3
DISTRIBUTION OF OPERATIONS BY AIRCRAFT CATEGORY –
PEAK DAY
Friedman Memorial Airport

Aircraft Type	Noise Model ID	Arrivals		Departures		Total
		Daytime	Nighttime	Daytime	Nighttime	
Regional Jets						
Bombardier Canadair CRJ900	CRJ9-ER	4.0	0.0	4.0	0.0	8.0
Embraer ERJ170-100	EMB170	2.0	0.0	2.0	0.0	4.0
<i>Subtotal</i>		6.0	0.0	6.0	0.0	12.0
General Aviation Jets						
Bombardier BD-700 Global Express	BD700	5.0	0.0	5.0	0.0	10.0
Beechcraft Baron 58	BEC58P	1.0	0.0	1.0	0.0	2.0
Bombardier Challenger CL30	CL600	11.0	0.0	11.0	0.0	22.0
Bombardier Challenger CL60	CL601	7.5	0.5	7.5	0.5	16.0
Cessna 500 Citation	CNA500	4.0	0.0	4.0	0.0	8.0
Cessna 550 Citation Bravo	CNA55B	3.0	0.0	3.0	0.0	6.0
Cessna 560 Citation Ultra	CNA560U	8.0	0.0	8.0	0.0	16.0
Cessna 560 Citation Excel	CNA560XL	13.5	0.5	13.5	0.5	28.0
Cessna 680 Citation Sovereign	CNA680	4.0	0.0	4.0	0.0	8.0
Cessna Citation X	CNA750	2.0	0.0	2.0	0.0	4.0
Gulfstream GIV	GIV	5.0	0.0	5.0	0.0	10.0
Gulfstream GV	GV	2.0	0.0	2.0	0.0	4.0
IAI 1125 Astra	IA1125	2.0	0.0	2.0	0.0	4.0
Lear 35	LEAR35	10.5	0.5	10.5	0.5	22.0
Mitsubishi MU3001	MU3001	5.0	0.0	5.0	0.0	10.0
<i>Subtotal</i>		83.5	1.5	83.5	1.5	170.0
Propeller Aircraft						
Cessna 182 Skylane	CNA182	2.0	0.0	2.0	0.0	4.0
Cessna 208 Caravan	CNA208	10.0	0.0	10.0	0.0	20.0
Cessna 441 Conquest	CNA441	2.5	0.5	2.5	0.5	6.0
De Havilland DHC-6 Twin Otter	DHC6	8.0	0.0	8.0	0.0	16.0
De Havilland Dash-8	DHC830	2.0	0.0	2.0	0.0	4.0
General Aviation Single Engine Prop	GASEPV	1.0	0.0	1.0	0.0	2.0
Shorts SD330	SD330	2.0	0.0	2.0	0.0	4.0
<i>Subtotal</i>		27.5	0.5	27.5	0.5	56.0

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Table 3, (continued)
DISTRIBUTION OF OPERATIONS BY AIRCRAFT CATEGORY –
PEAK DAY
Friedman Memorial Airport

Aircraft Type	Noise Model ID	Arrivals		Departures		Total
		Daytime	Nighttime	Daytime	Nighttime	
Helicopters						
Eurocopter EC-130	EC130	1.0	0.0	1.0	0.0	2.0
<i>Subtotal</i>		1.0	0.0	1.0	0.0	2.0
Grand Total		118.0	2.0	118.0	2.0	240.0

Source: FAA TFMSC Database, FMAA, Landrum & Brown, 2017.

Runway End Utilization: Due to the surrounding terrain and land uses, aircraft typically arrive to SUN from the south, landing on Runway 31 and take off to the south from Runway 13. Average-annual day runway end utilization is based on data provided by FMAA staff. Data shows that approximately 95 percent of all aircraft arrive from the south, landing on Runway 31; and depart to the south, taking off from Runway 13. Approximately 5 percent of aircraft arrive from the north, landing on Runway 13 and depart to the north on Runway 31. Of this 5 percent, approximately 3 percent are single-engine prop aircraft and the other 2 percent are turboprops or general aviation jets. Arrivals to Runway 13 land with a 1,701 foot displaced threshold.

Flight Tracks: Flight tracks used for this analysis are based on historic radar data and information provided by FMAA staff. Flight track locations are shown in **Exhibit 1, Exhibit 2, and Exhibit 3**. Flight track locations and percent of use is based on a data from the DEIS, FAA published flight routes, and visual observation of flight track locations. Aircraft on approach to Runway 31 fly either a visual approach or an instrument approach. Exhibit 1 shows arrival flight tracks for both the visual and the instrument approaches. For noise modeling, it is assumed that 99 percent of commercial regional jet arrivals, 50 percent of general aviation jet arrivals, and 25 percent of prop aircraft arrivals follow one of the instrument approach routes.

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NOISE MODELING RESULTS

The results of the noise analysis are presented using noise contours and grid points. Noise contours are lines representing areas of equal noise exposure. Noise contours are generally depicted using the Day-Night Average Sound Level (DNL) metric and 65 DNL is the generally the threshold of significance for noise-sensitive land uses, including residences, that have not been mitigated.

Noise Contours

For this analysis, equal noise contour lines for the levels of 65 and 70 DNL were calculated and represent average-annual day conditions. Because DNL is typically used to represent average-annual day conditions, DNL contours were not developed for the peak day or average day peak month scenarios.

Existing (2017) Baseline Noise Contour: The Existing (2017) Baseline noise contour represents current conditions at SUN. The 65 DNL of the Existing (2017) Baseline noise contour is shown on **Exhibit 4**. The shape of the noise contour reflects the predominant runway use patterns at SUN in which aircraft primarily arrive from the south and depart to the south. Therefore, the noise contour shape comes to a point on the south end due to the influence of noise levels from aircraft arrivals on a straight-in approach. The noise contour on the north end expands outward due to the engine noise from aircraft starting their departure roll.

The 65 DNL noise contour primarily remains over Airport property. On the north side, the noise contour extends outward beyond airport property; however, it remains over commercial and undeveloped property.

Grid Points

Grid points represent calculated noise levels at a specific point or points surrounding an airport. Grid points can present information using different metrics that describe noise levels or aircraft event information. For this analysis, grids points were generated to show the total number of events in which the maximum noise level exceeded 65 decibels (NA65). **Exhibit 5** shows the grid point locations and the NA65 range of each grid point for the 2017 average-annual day conditions. **Exhibit 6** shows the grid point locations and the NA65 range of each grid point for the 2017 peak month average day conditions. **Exhibit 7** shows the grid point locations and the NA65 range of each grid point for the 2017 peak day conditions.

In addition to the NA65 ranges shown on Exhibits 5 to 7, two individual locations were selected at which additional detailed noise modeling information was provided. These grid point locations are shown in **Exhibit 8**. At each of these locations, the average annual day DNL value and overall Lmax is reported along with the number of events above 65 dB (NA65). Table 4 shows the results of this analysis. On an

memo

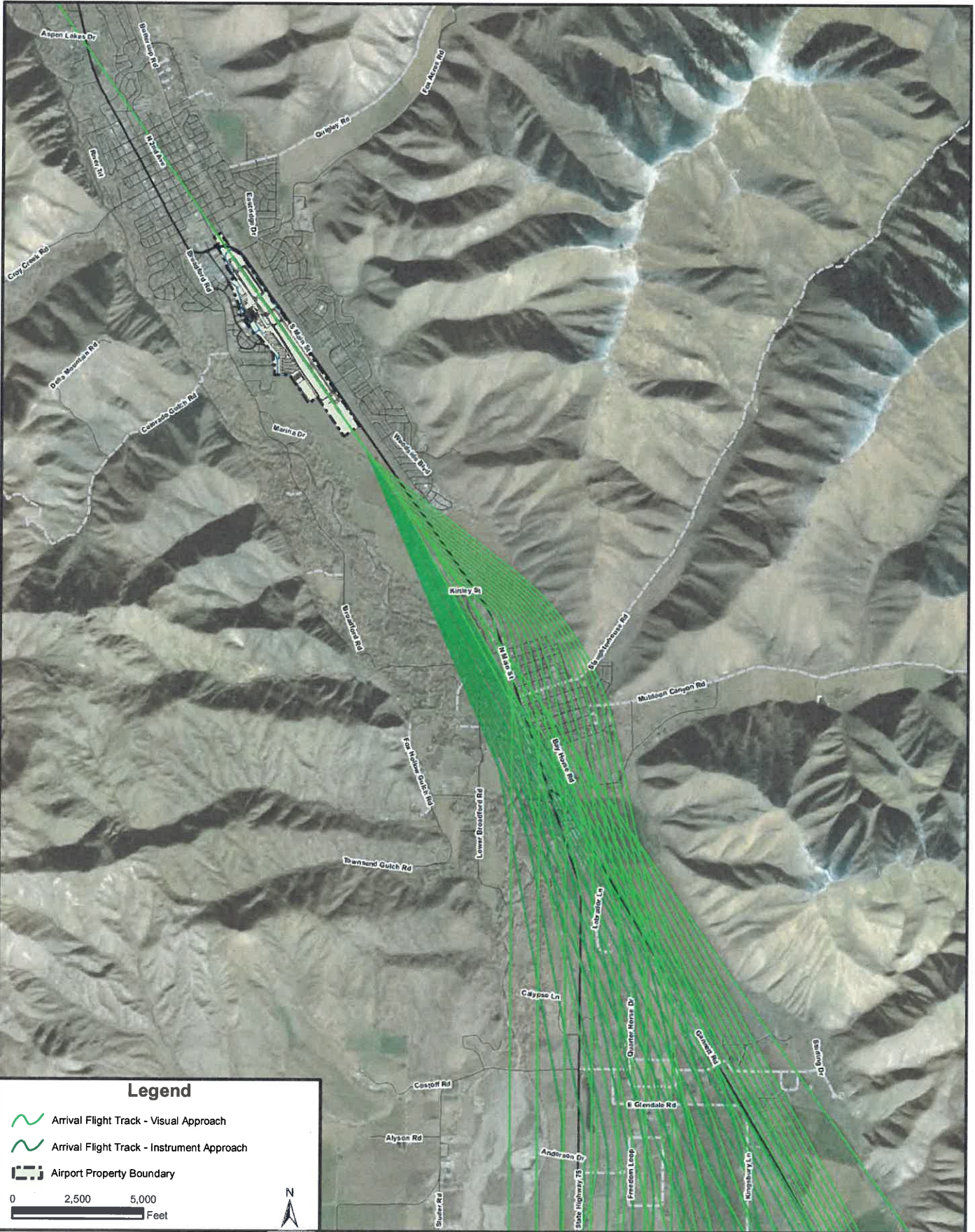
average-annual day, the two grid point locations (G1 and G2) experience approximately 38 to 50 aircraft overflights above 65 dB. Overall this equates to a DNL level of 49.1 to 52.2, which is well below the Federal threshold of significance of 65 DNL.

Table 4
DETAILED GRID POINT RESULTS
Friedman Memorial Airport

GRID ID	AVERAGE ANNUAL DAY			PEAK MONTH - AVERAGE DAY	PEAK DAY
	DNL	LMAX	NA65	NA65	NA65
G1	52.2	88.1	50	95	182
G2	49.1	84.7	38	74	144

memo

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Legend

- Arrival Flight Track - Visual Approach
- Arrival Flight Track - Instrument Approach
- Airport Property Boundary

0 2,500 5,000
Feet

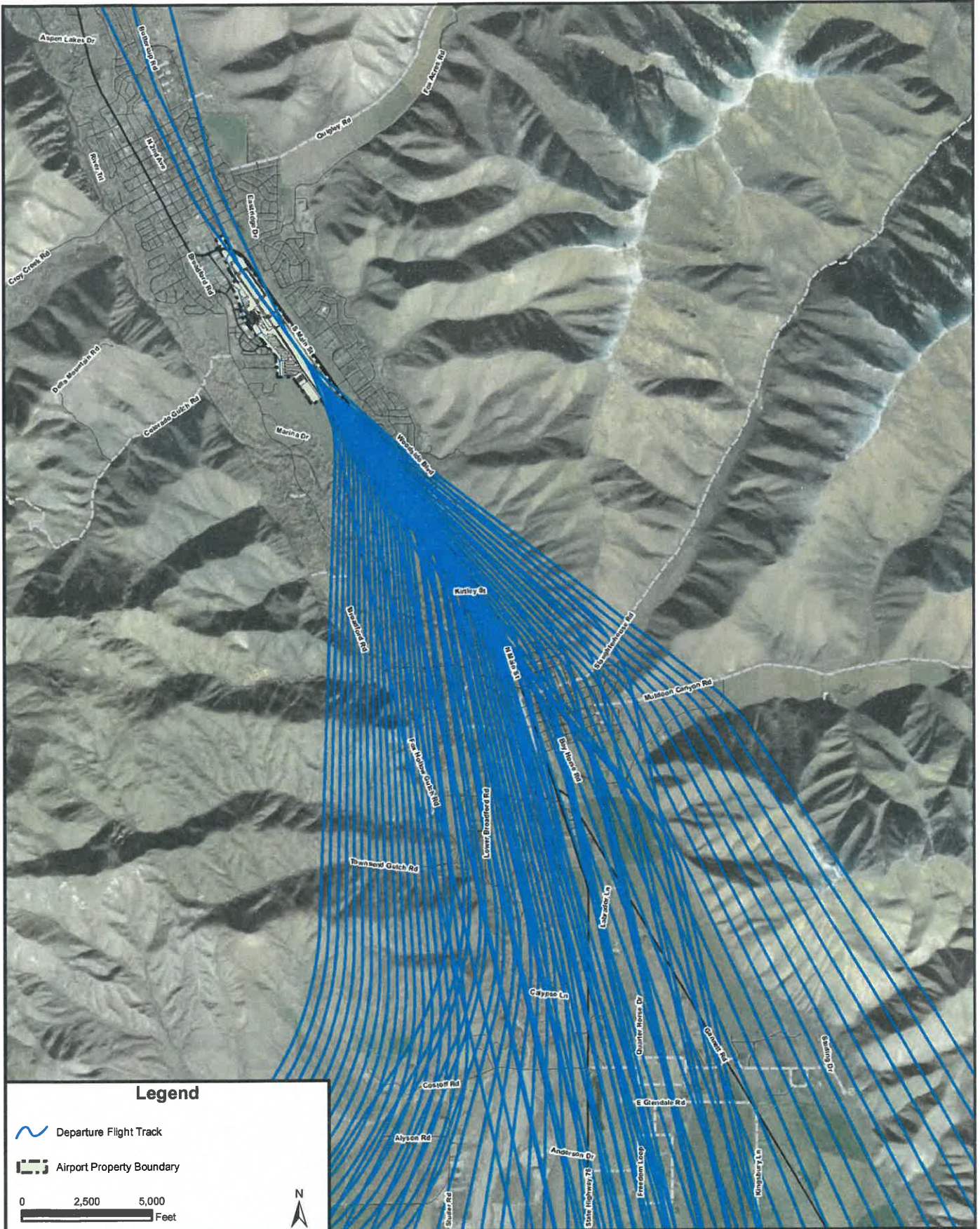
N

Noise Analysis
Friedman Memorial Airport

DRAFT

Modeled Arrival Flight Tracks

EXHIBIT:
1



Legend

Departure Flight Track

Airport Property Boundary

0 2,500 5,000
Feet

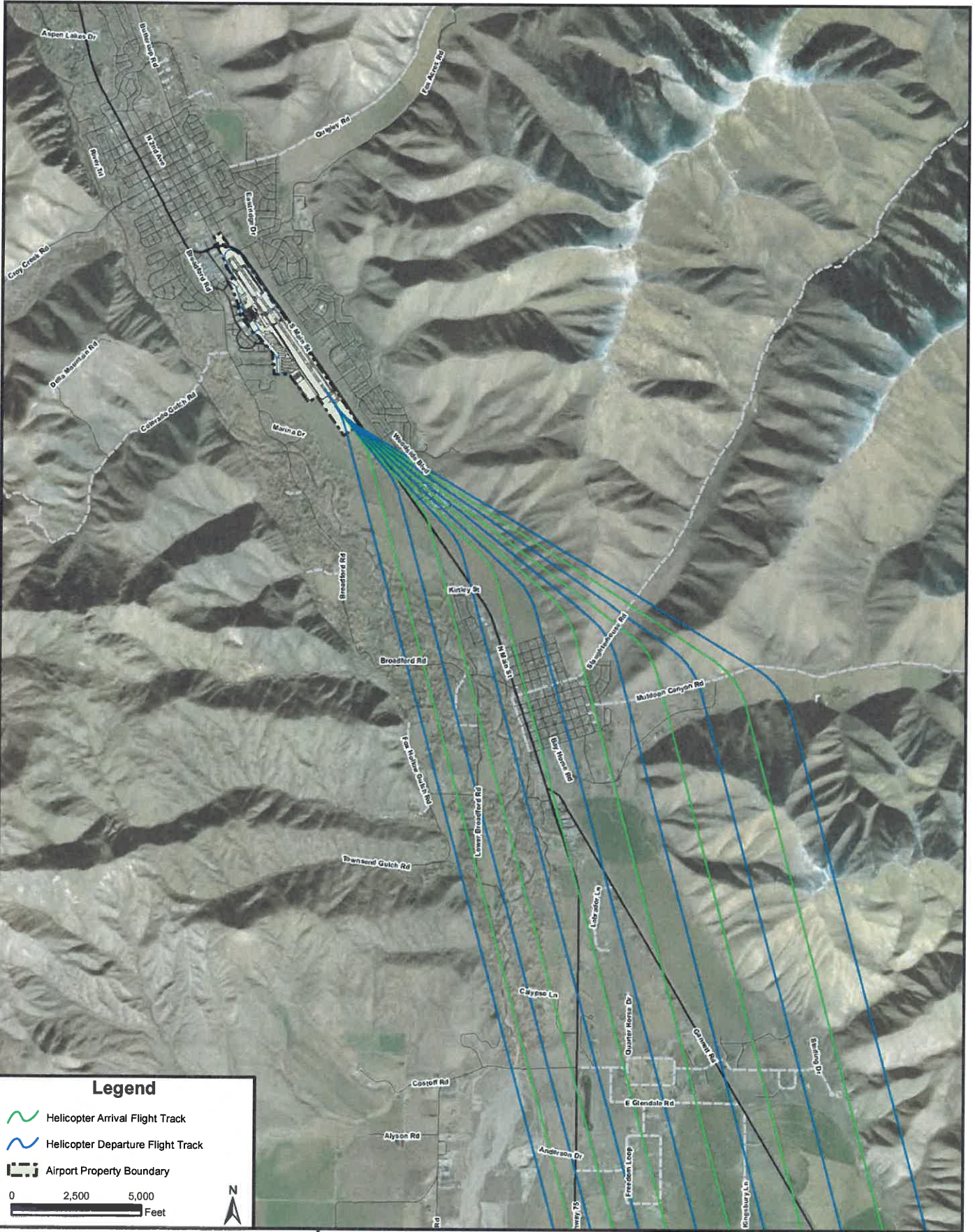


Noise Analysis
Friedman Memorial Airport






Modeled Departure Flight Tracks

EXHIBIT:
2



Legend

-  Helicopter Arrival Flight Track
-  Helicopter Departure Flight Track
-  Airport Property Boundary

0 2,500 5,000
Feet

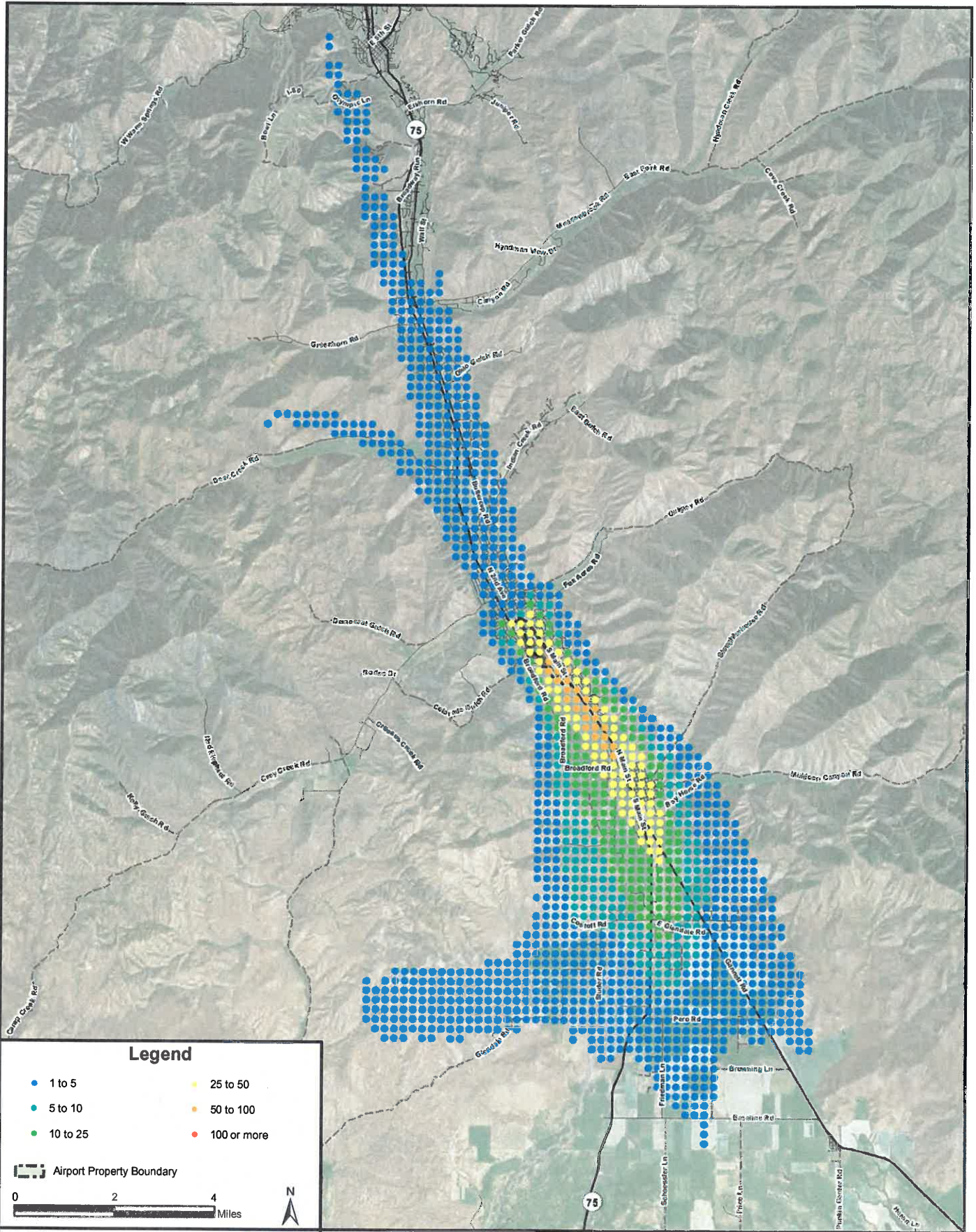
N

 **Noise Analysis**
Friedman Memorial Airport

 **DRAFT**

Modeled Helicopter Flight Tracks

EXHIBIT:
3



Legend

- 1 to 5
- 5 to 10
- 10 to 25
- 25 to 50
- 50 to 100
- 100 or more

Airport Property Boundary

0 2 4 Miles



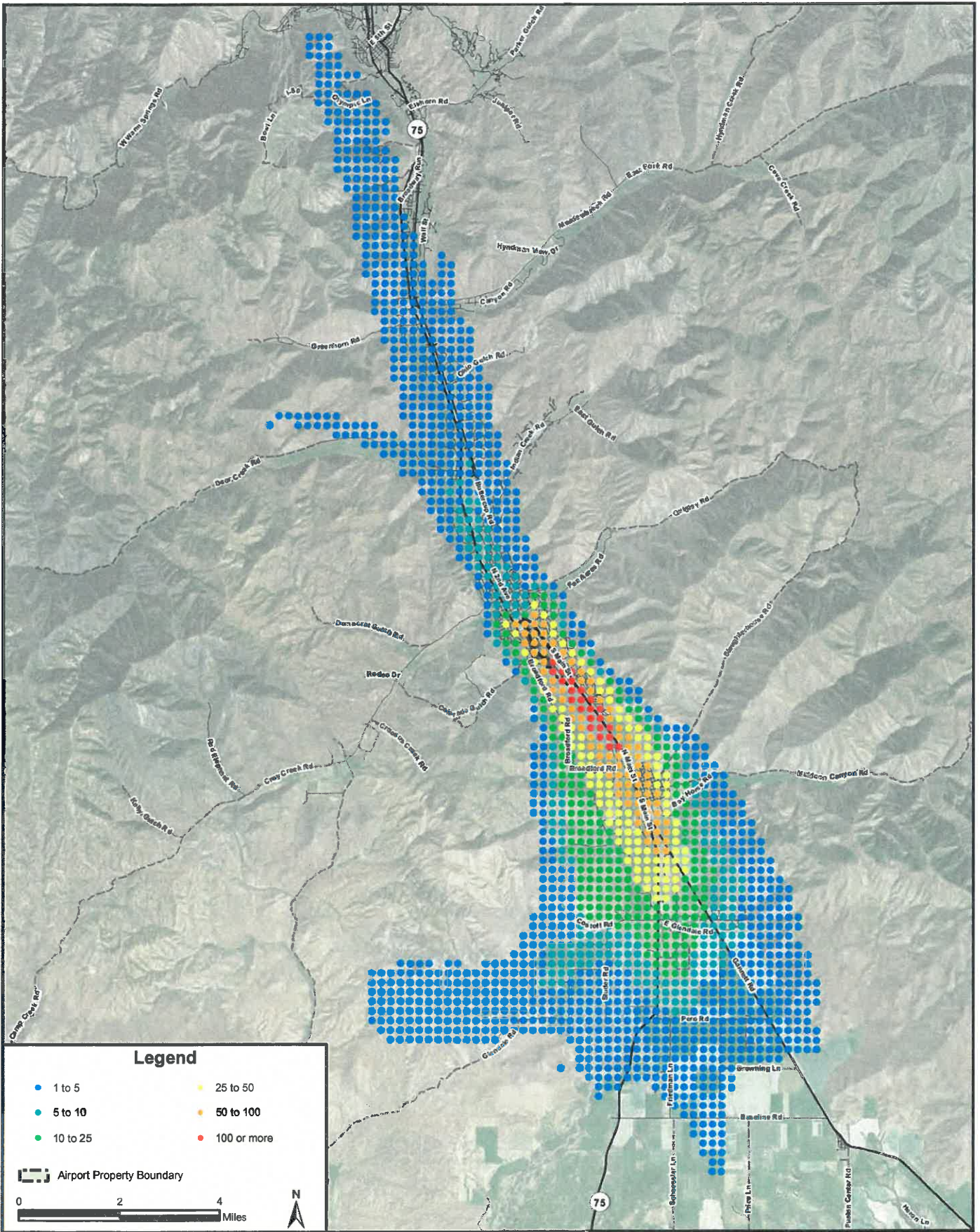
Noise Analysis
Friedman Memorial Airport



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**Number of Events Above 65 Lmax -
Average-Annual Day**

EXHIBIT:
5



Legend

- 1 to 5
- 5 to 10
- 10 to 25
- 25 to 50
- 50 to 100
- 100 or more

 Airport Property Boundary

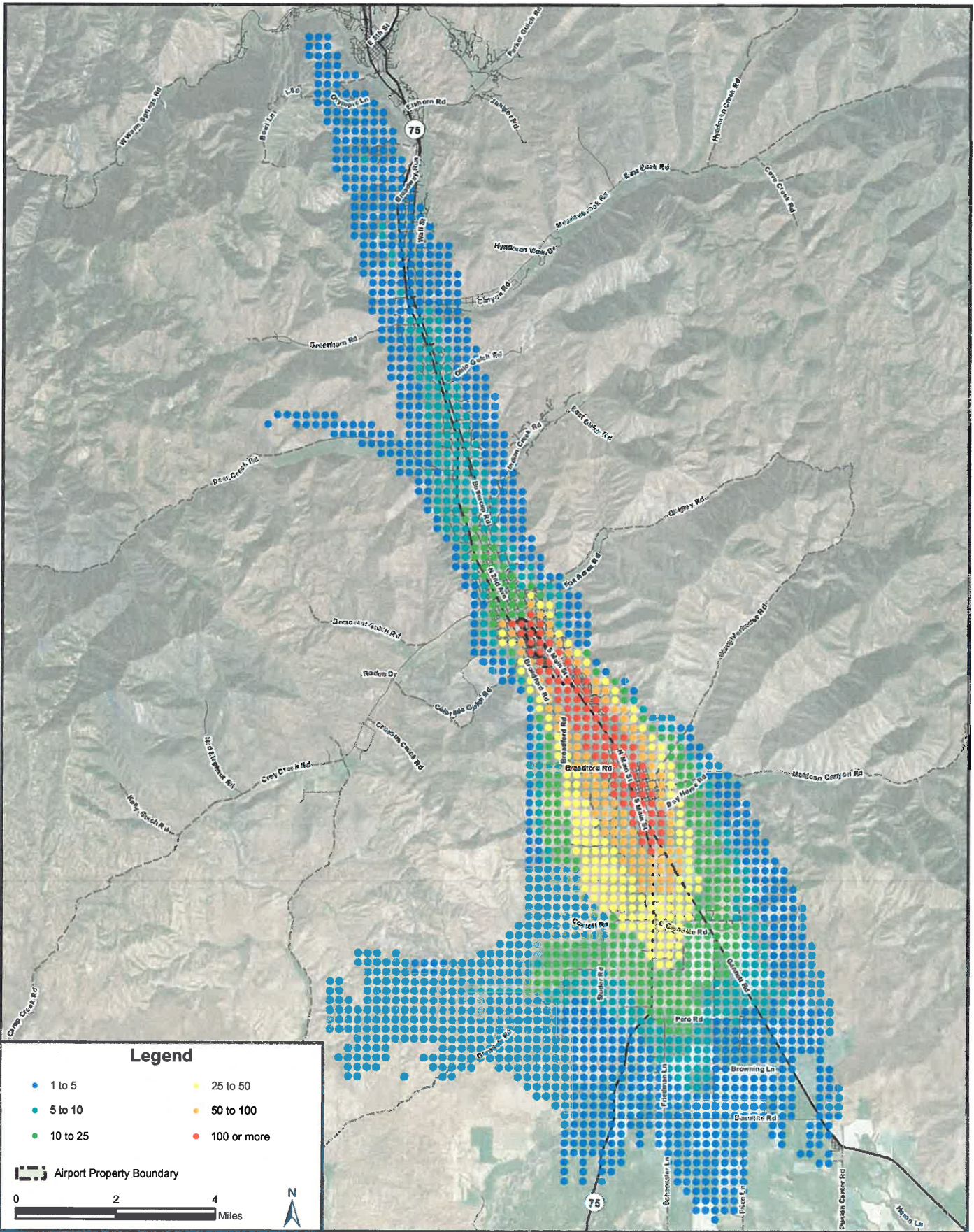
0 2 4
 Miles

N

**Number of Events Above 65 Lmax -
Peak Month - Average Day**

EXHIBIT:
6

Prepared by Landrum & Brown - 11/6/2017 Y:\SUN\2017 Noise Analysis\E-L&B Work Product\2-GIS\WXD\Exhibits\Memo\NOV2017_Noise_Memo\Ex-6_NA65_Grid_Points_PEAK_Month_AVG_DAY.mxd



Legend

- 1 to 5
- 25 to 50
- 5 to 10
- 50 to 100
- 10 to 25
- 100 or more

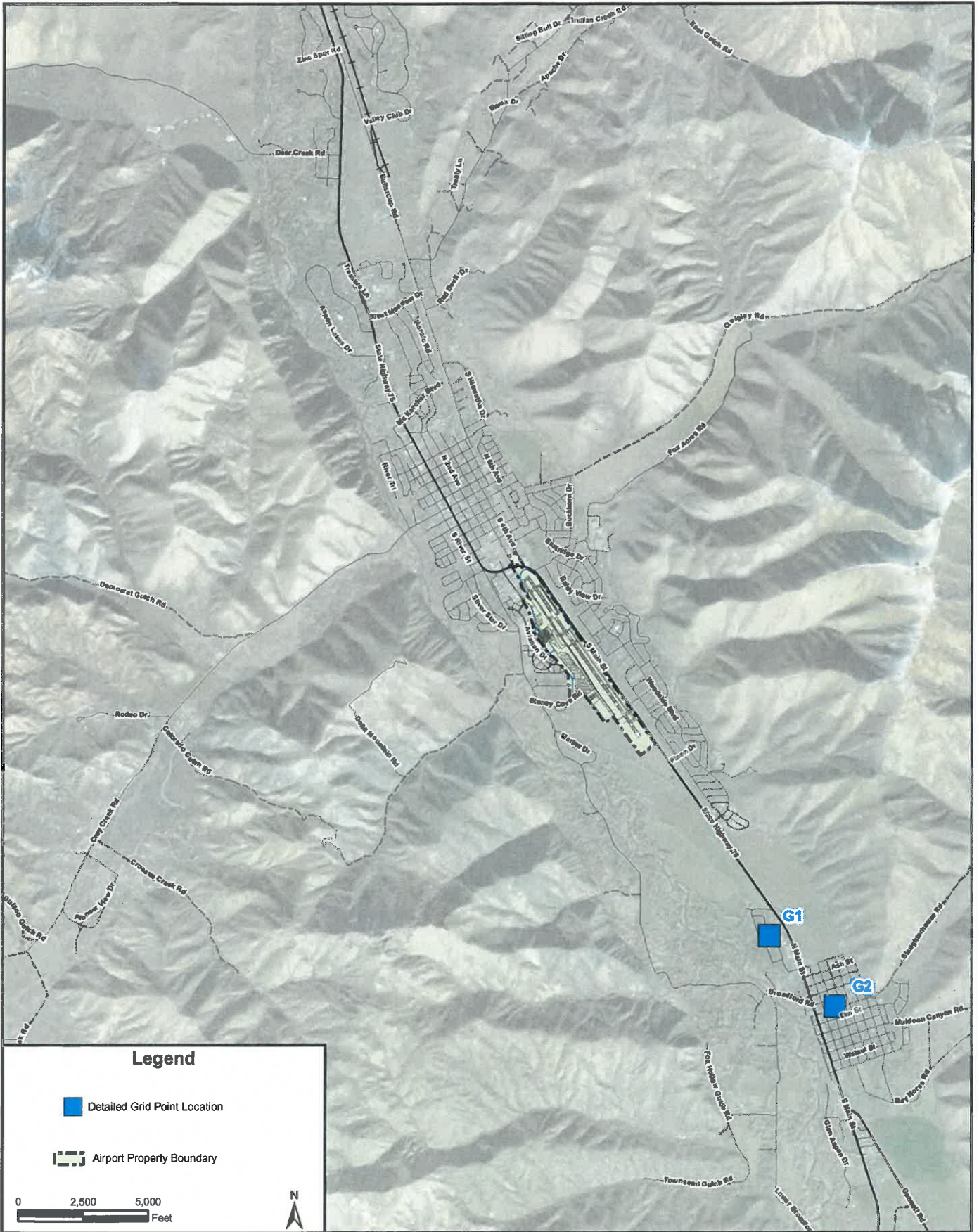
Airport Property Boundary



Noise Analysis
Friedman Memorial Airport
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**Number of Events Above 65 Lmax -
Peak Day**

EXHIBIT:
7



Legend

- Detailed Grid Point Location
- Airport Property Boundary

0 2,500 5,000 Feet

N

Noise Analysis
Friedman Memorial Airport

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Detailed Grid Point Locations

EXHIBIT:
8

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