

**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, August 6, 2019 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  
August 6, 2019**

- I. APPROVE AGENDA – ACTION ITEM**
- II. PUBLIC COMMENT (10 Minutes Allotted)**
- III. PUBLIC HEARING**
  - A. FY '20 Budget – Motion to Approve – **Attachment #1, #2 ACTION ITEM**
- IV. FRIEDMAN MEMORIAL AIRPORT AUTHORITY MEETING MINUTES OF:**
  - A. July 2, 2019 Regular Meeting – Motion to Approve – **Attachment #3 ACTION ITEM**
  - B. July 17, 2019 Special Meeting – Motion to Approve – **Attachment #4 ACTION ITEM**
- V. REPORTS**
  - A. Chairman Report
  - B. Blaine County Report
  - C. City of Hailey Report
  - D. Fly Sun Valley Alliance Report
  - E. Treasurer's Report
  - F. Airport Manager Report
- VI. AIRPORT STAFF BRIEF (5 Minutes Allotted)**
  - A. Noise Complaints in July
  - B. Profit & Loss, ATCT Traffic Operations Count and Enplanement Data – **Attachment #5 - #7**
  - C. Airport Commercial Flight Interruptions (unofficial)
  - D. Review Correspondence
- VII. ACTION ITEMS (a vote may occur but is not required to be taken)**
  - A. NEW BUSINESS
    - 1. Statements of Qualifications for 5-year Airport Planning Services – Consideration of Selection **ACTION ITEM**
  - B. CONTINUING BUSINESS
    - 1. None
- VIII. DISCUSSION AND UPDATES**
  - A. NEW BUSINESS
    - 1. Fiscal Year '20 Snow Removal Equipment (SRE) Acquisition – Idaho Falls SRE Bid Piggyback
  - B. CONTINUING BUSINESS
    - 1. Construction and Capital Projects
      - i. Parking Lot Landscaping
    - 2. Airport Planning Projects
      - i. Instrument Approach Development – Presentation by Flight Tech Engineering – **Attachment #8**
      - ii. Air Traffic Control Tower Replacement – Presentation by William E. Payne and Associates
    - 3. Miscellaneous
      - i. None
- IX. PUBLIC COMMENT**
- X. EXECUTIVE SESSION**
  - I.C. §74-206 (1),(c) To acquire an interest in real property which is not owned by a public agency**
  - I.C. §74-206 (1),(f) To communicate with legal counsel to discuss legal ramifications for controversy imminently likely to be litigated**
- XI. ADJOURNMENT**

### **III. PUBLIC HEARING:**

#### **A. FY '20 Budget – Motion to Approve – Attachment #1, #2 ACTION ITEM**

**Attachment #1** is the proposed FY '20 Budget Worksheet (Combined) which incorporates all the revisions presented by Staff during the July FMAA regular meeting.

As stated in the Joint Powers Agreement, the Board is required to hold a public hearing on or before the second Tuesday in August and to approve the budget on or before August 15. **Attachment #2** is the Public Hearing Notice that was published on July 24, 2019 and July 31, 2019.

**Action Requested:** Consider a Motion to approve the proposed Friedman Memorial Airport Budget for FY '20 in the amount of \$7,061,549.18.

### **IV. FRIEDMAN MEMORIAL AIRPORT AUTHORITY MEETING MINUTES OF:**

- A. July 2, 2019 Regular Meeting – Motion to Approve – **Attachment #3 ACTION ITEM**
- B. July 17, 2019 Special Meeting – Motion to Approve – **Attachment #4 ACTION ITEM**

### **V. 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 a report if appropriate.

#### **E. Treasurer's Report**

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

#### **F. Airport Manager Report**

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

## VI. AIRPORT STAFF BRIEF - (5 Minutes Allotted)

### A. Noise Complaints in July

LOCATION	DATE	TIME	AIRCRAFT TYPE	INCIDENT	ACTION/RESPONSE
Hailey	7/7/2019	6:21 a.m.	Jet	Loud jet departing at 6:21 a.m.	The same aircraft came earlier the same day at 5:24 a.m. but no complaints were received. However, the Airport Manager heard both arrival and departures from his house and he contacted the operator and sent them an email that morning. The operator apologized and said they wouldn't do it again – their client requested the early morning operations and they were put in a difficult situation. For future operations at SUN, the operator would not accept charter requests during our voluntary noise abatement hours. Ops Manager contacted the caller and discussed the outcome.
Hailey	7/14/2019	12:13 p.m.	Prop	Numerous small prop planes circling over Hailey.	The Ops Manager informed the caller that the tower had to hold some aircraft north of the airport throughout the weekend due to traffic from the annual fly-in event.
Bellevue	7/9/2019	1:30 p.m.	Jets	The caller stated that 20 or more jets have flown over his house and there is a strong smell of jet fuel. He asked if we could adjust the flight pattern, so they don't keep flying over the same place.	Caller indicated no return call was necessary. This was during the first day of the annual fly-in event and unfortunately, no changes could be made in flight patterns.
Woodside	7/20/2019	6:27 p.m.	Jet	Caller complained about a jet at the south end of the airport idling for over 10 minutes and making an awful noise.	Ops Manager informed the caller that due to the winds, the aircraft had to depart to the north for safety reasons. The caller was very upset.
Hailey	7/29/2019	12:09 p.m.	Prop	Plane circling low and loud over Hailey then flying off to the west.	ATC held the plane over north Hailey for a few minutes to allow for landing aircraft from the south. Caller notified by Ops Manager.

\*We received two calls from a Hailey resident on July 10 and 20 respectively, stating more broad concerns and complaints about the airport and its impact on the quality of life on the residents in the valley. We have received numerous calls from this caller with these broader complaints about the airport in the past. Both the Airport Manager and Ops Manager have attempted to return calls to the caller numerous times to explain our operational and regulatory requirements and what the Board and airport staff can or can't do to address her concerns. Unfortunately, our return calls to offer this information go unanswered.

Concerns/complaints in this log come from the noise complaint line and website online form and only those calls/messages associated with specific noise complaints from these sources will be logged. As the concerns received from the caller are more closely related to public comment, it will be archived and available to any Board member upon request. Staff would very much like to discuss the stated concerns directly with the caller, and other members of the community with similar concerns. Of course, members of the community are always invited to attend a Board meeting to discuss concerns with FMAA.

B. Profit & Loss, ATCT Traffic Operations Count and Enplanement Data - **Attachments #5 - #7**

**Attachment #5** is Friedman Memorial Airport Profit & Loss Budget vs. Actual (unaudited)

**Attachment #6** is 2001 - 2019 ATCT Traffic Operations data comparison by month

**Attachment #7** is 2019 Enplanement, Deplanement and Seat Occupancy data

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

<b>May, 2019</b>		
Total Non-Federal Revenue	May, 2019	\$188,564.21
Total Non-Federal Revenue	May, 2018	\$127,699.62
Total Non-Federal Revenue	FY '19 thru May	\$2,287,526.00
Total Non-Federal Revenue	FY '18 thru May	\$1,938,086.17
Total Non-Federal Expenses	May, 2019	\$232,064.00
Total Non-Federal Expenses	May, 2018	\$246,886.35
Total Non-Federal Expenses	FY '19 thru May	\$2,466,989.38
Total Non-Federal Expenses	FY '18 thru May	\$2,023,882.56
Net Income excluding Federal Programs	FY '19 thru May	-\$179,463.38
Net Income excluding Federal Programs	FY '18 thru May	-\$85,796.39
Net Income to include Federal Programs	FY '19 thru May	-\$532,123.32
Net Income to include Federal Programs	FY '18 thru May	\$26,152.05

C. Airport Commercial Flight Interruptions (unofficial):

<b>AIRLINE</b>	<b>FLIGHT CANCELLATIONS</b>	<b>FLIGHT DIVERSIONS</b>
	July 1 – July 31	
Alaska Airlines	None	None
Delta	None	None
United	None	None

D. Review Correspondence

None

## **VII. ACTION ITEMS (a vote may occur but is not required to be taken)**

### **A. NEW BUSINESS**

#### **1. Statement of Qualifications for 5-year Airport Planning Services – Consideration of Selection ACTION ITEM**

As discussed at the June FMAA meeting, the current five-year on-call airport planning services agreement with Mead & Hunt has expired.

Based on direction from the Board at the June meeting, staff initiated the Request for Qualifications (RFQ) process to solicit Statements of Qualification (SOQ) from qualified airport planning firms to provide professional on-call airport planning services at SUN.

Only one SOQ was received by the submittal deadline (July 18<sup>th</sup>) and that was from Mead & Hunt. The Mead & Hunt SOQ was provided to the Selection Committee for review and discussion. Discussion between the Selection Committee and full Board regarding a Recommendation of Selection is anticipated at the meeting.

A motion to approve such recommendation may also be asked of the Board at the meeting.

### **B. CONTINUING BUSINESS**

#### **1. None**

## **VIII. DISCUSSION AND UPDATES**

### **A. NEW BUSINESS**

#### **1. Fiscal Year '20 Snow Removal Equipment (SRE) Acquisition – Idaho Falls SRE Bid Piggyback**

Staff continues to make improvements to its aging snow removal equipment fleet. An existing plow and broom are nearing the end of their useful lives and the new FAA requirements for runway condition reporting during snow events has increased equipment utilization and crew workload. Also, looking ahead to potential new approach procedures, we need to continue to enhance our snow removal capabilities.

The airport's FY20 Capital Improvement Program (CIP) includes an additional piece of SRE, specifically a Multi-Tasking Equipment (MTE) unit, which includes combined plow and broom capabilities. This type of equipment is well suited for future snow removal operations at SUN.

The ability of SUN to acquire this piece of equipment has been made more efficient and cost effective as a result of a recent bid for MTE at Idaho Falls Regional Airport. The Idaho Falls SRE bid specifications included a specification that will allow all commercial service airports in Idaho (listed by name), to "piggyback" on the successful bid. The Idaho Falls bids were opened on July 17 with a favorable bid price.

No action is being requested of the Board at this meeting. Rather, Staff is seeking discussion with Board including support of Staff to coordinate with the FAA and T-O Engineers the details to take advantage of the piggyback opportunity. The procurement of SRE is included in our FY20 CIP and the cost of the equipment is eligible for FAA AIP funds at 93.75% from the FAA.

## **B. CONTINUING BUSINESS**

### **1. Construction and Capital Projects**

#### **i. Parking Lot Landscaping**

After additional delays on the part of the landscape contractor, the parking lot landscaping is still in progress.

### **2. Airport Planning Projects**

#### **i. Instrument Approach Development – Presentation by Flight Tech Engineering**

Flight Tech Engineering has completed the feasibility study for new GPS based approach procedure concepts and will present its findings to the Board at the meeting. The study began in January 2019 and involved general aviation and airline stakeholder coordination, design, and simulator testing of new procedure concepts.

Next Generation procedure types utilizing Area Navigation (RNAV) and Required Navigation Performance (RNP) were assessed during the study. The goal was to determine if a solution could be implemented that would reduce diversions and/or cancellations during periods of low clouds and visibility, based on historical weather data. The assessment determined that two different solutions could be developed and would have the added benefit of delivering enhanced vertical guidance to the runway environment exceeding what is available today. Each procedure concept requires advanced navigation equipage levels and approval by the FAA.

Alec Seybold from Flight Tech will be in attendance at the meeting to present a summary of findings. He will also discuss next steps including the pathways to implementation, stakeholder involvement, timelines, and answer any questions from the Board.

The final Technical Report for Phase 1 is included as **Attachment #8**.

#### **ii. Air Traffic Control Tower Replacement – Presentation by William E. Payne and Associates**

Chairman Greenberg and Airport Manager Pomeroy continue to coordinate with Bill Payne, with William E. Payne and Associates, regarding the Air Traffic Control Tower replacement project. Bill Payne will be in attendance at the meeting to

update the Board on recent progress and next steps as well as answer any questions from the Board.

**3. Miscellaneous**

**i. None**

**IX. PUBLIC COMMENT**

- X. EXECUTIVE SESSION** I.C. §74-206 (1),(c) To acquire an interest in real property which is not owned by a public agency  
I.C. §74-206 (1),(f) To communicate with legal counsel to discuss legal ramifications for controversy imminently likely to be litigated

**XI. ADJOURNMENT**

Friedman Memorial Airport FY 2020 Budget - Combined										
	FY '17		FY '18		FY '19			FY '20		Notes
	Oct '16 - Mar 17	Year End	Oct '17 - Mar '18	Year End	Oct '18 - Mar '19	Budget	Budget Remaining	% Remaining	Proposed Budget	% Change from Prev. Yr. Budget
REVENUE										
4000-00 - AIRCARRIER										
4000-01 - Aircarrier - Lease Space	42,260.58	84,521.16	42,260.58	84,520.96	63,625.08	350,000.00	286,374.92	81.82%	350,000.00	0.00% New aircarrier leases - Does not include additional lease space requested by SKW
4000-02 - Aircarrier - Landing Fees	83,387.42	187,568.65	96,793.69	200,923.43	106,164.01	200,000.00	93,835.99	46.92%	200,000.00	0.00%
4000-03 - Aircarrier - Gate Fees	600.00	1,200.00	600.00	1,200.00	0.00	0.00	0.00	0.00%	0.00	0.00% Included in lease space fees
4000-04 - Aircarrier - Utility Fees	12,449.79	23,754.98	15,304.68	27,577.84	180.00	30,000.00	29,820.00	99.40%	0.00	-100.00% Included in lease space fees
4000-05 - Aircarrier - Misc.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
4010-07 - Aircarrier - '14 PFC Application	174,028.33	353,927.94	180,751.73	370,751.70	187,830.10	380,000.00	192,169.90	50.57%	395,000.00	3.95% Collecting at an accelerated rate
Total 4000-00 - AIRCARRIER	312,726.12	650,972.73	335,710.68	684,973.93	357,799.19	960,000.00	602,200.81	62.73%	945,000.00	-1.56%
4020-00 - TERMINAL AUTO PARKING REVENUE										
4020-01 - Automobile Parking - Terminal	119,725.81	267,875.39	169,119.49	413,690.09	239,331.00	475,000.00	235,669.00	49.62%	525,000.00	10.53% Increase based on new parking lot equipment and increased accountability
Total 4020-00 - TERMINAL AUTO PARKING REVENUE	119,725.81	267,875.39	169,119.49	413,690.09	239,331.00	475,000.00	235,669.00	49.62%	525,000.00	10.53%
4030-00 - AUTO RENTAL REVENUE										
4030-01 - Automobile Rental - Commission	271,463.61	576,407.73	260,845.85	563,681.96	280,129.43	655,000.00	374,870.57	57.23%	575,000.00	-12.21%
4030-02 - Automobile Rental - Counter	13,372.92	26,745.84	13,704.48	27,408.96	14,146.56	28,145.00	13,998.44	49.74%	29,100.00	3.39% CPI Increase
4030-03 - Automobile Rental - Auto Prkng	39,206.96	66,746.92	46,812.36	77,146.22	51,132.00	79,799.52	28,667.52	35.92%	108,000.00	35.34% CPI Increase /Hertz Additional Parking (\$14K)
4030-04 - Automobile Rental - Utilities	4,184.22	4,978.89	1,080.36	1,944.18	916.11	1,800.00	883.89	49.11%	2,500.00	38.89%
Total 4030-00 - AUTO RENTAL REVENUE	328,227.71	674,879.38	322,443.05	670,181.32	346,324.10	764,744.52	418,420.42	54.71%	714,600.00	-6.56%
4040-00 - TERMINAL CONCESSION REVENUE										
4040-01 - Terminal Shops - Commission	0.00	0.00	0.00	5,117.77	5,538.63	5,000.00	(538.63)	-10.77%	10,000.00	100.00% 5% of Gross
4040-02 - Terminal Shops - Lease Space	12.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00% Lease space not collected during first year of the lease
4040-03 - Terminal Shops - Utility Fees	863.14	1,657.79	471.98	914.47	961.12	1,500.00	538.88	35.93%	0.00	-100.00%
4040-10 - Advertising - Commission	27,432.50	51,966.00	24,935.05	50,202.62	23,023.15	52,000.00	28,976.85	55.73%	52,000.00	0.00% Based on FY '18 Year End Actual and YTD Comp.
4040-11 - Vending Machines - Commission	9,535.16	15,709.08	10,511.53	16,926.08	7,098.27	15,000.00	7,901.73	52.68%	15,000.00	0.00% Decrease based on terminal concession
4040-12 - Terminal ATM	250.50	343.50	269.50	659.50	600.00	900.00	300.00	33.33%	900.00	0.00% Contracted amount
Total 4040-00 - TERMINAL CONCESSION REVENUE	38,093.30	69,688.37	36,188.06	73,820.44	37,221.17	74,400.00	37,178.83	49.97%	77,900.00	4.70%
4050-00 - FBO REVENUE										
4050-01 - FBO - Lease Space	108,410.04	211,767.51	77,572.19	154,491.31	78,955.58	157,860.00	78,904.42	49.98%	159,900.00	1.29% FBO Lease, Fuel Farm & FHA Unit #3
4050-02 - FBO - Tiedown Fees	114,860.00	437,231.49	97,675.86	418,850.61	106,636.95	460,000.00	353,363.05	76.82%	410,000.00	-10.87% Less revenue amt. due to increased storage in maint. hangar
4050-03 - FBO - Landing Fees - Trans.	137,836.60	347,118.12	155,659.20	352,746.05	157,718.38	365,000.00	207,281.62	56.79%	360,000.00	-1.37% Based on FY '18 Year End Actual and YTD Comp.
4050-04 - FBO - Commission	11,845.40	25,717.98	12,896.46	24,748.30	15,939.25	26,000.00	10,060.75	38.70%	25,000.00	-3.85%
4050-06 - FBO - Charter	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
4050-07 - FBO - Misc.	0.00	9,077.59	0.00	10,117.20	0.00	9,000.00	9,000.00	100.00%	0.00	-100.00% Consultant expenses reimbursed by Atlantic
Total 4050-00 - FBO REVENUE	372,952.04	1,030,912.69	343,803.71	960,953.47	359,250.16	1,017,860.00	658,609.84	64.71%	954,900.00	-6.19%
4060-00 - FUEL FLOWAGE REVENUE										
4060-01 - Fuel Flowage - FBO	140,286.45	335,960.07	158,943.45	350,472.54	171,588.99	355,000.00	183,411.01	51.67%	365,000.00	2.82% Based on FY '18 April - Sept./Actual October - March FY '19
Total 4060-00 - FUEL FLOWAGE REVENUE	140,286.45	335,960.07	158,943.45	350,472.54	171,588.99	355,000.00	183,411.01	51.67%	365,000.00	2.82%
4070-00 - TRANSIENT LANDING FEES REVENUE										
4070-02 - Landing Fees - Commercial					0.00	0.00	0.00	0.00%	0.00	0.00%
4070-02 - Landing Fees - Non-Comm./Gov't	218.82	218.82	218.82	1,462.07	218.82	200.00	(18.82)	-9.41%	200.00	0.00%
Total 4070-00 - TRANSIENT LANDING FEES REVENUE	218.82	218.82	218.82	1,462.07	218.82	200.00	(18.82)	-9.41%	200.00	0.00%



Friedman Memorial Airport FY 2020 Budget - Combined										
	FY '17		FY '18		FY '19			FY '20		Notes
	Oct '16 - Mar 17	Year End	Oct '17 - Mar '18	Year End	Oct '18 - Mar '19	Budget	Budget Remaining	% Remaining	Proposed Budget	% Change from Prev. Yr. Budget
4080-00 - HANGAR REVENUE										
4080-01 - Hangar - Land Lease	220,662.60	461,768.61	237,790.00	494,710.46	300,389.94	607,350.00	306,960.06	50.54%	673,815.00	10.94%
4080-02 - Hangar/Trans. Fee - Land Lease	2,321.75	9,852.40	3,143.00	12,507.50	8,197.50	0.00	(8,197.50)	0.00%	8,000.00	100.00%
4080-03 - Hangar/Utilities (E8, 11, 24)	1,022.04	1,569.60	0.00	0.00	0.00	1,800.00	1,800.00	100.00%	0.00	-100.00%
4080-05 - Hangar Rental - FMA Owned	0.00	0.00	6,650.70	4,150.70	17,266.08	35,000.00	17,733.92	50.67%	32,625.00	-6.79%
Total 4080-00 - HANGAR REVENUE	224,006.39	473,190.61	247,583.70	511,368.66	325,853.52	644,150.00	318,296.48	49.41%	714,440.00	10.91%
4090-00 - TIEDOWN PERMIT FEES REVENUE										
4090-01 - Tiedown Permit Fees (FMA)	9,910.21	11,117.17	9,083.00	9,906.23	11,971.59	10,000.00	(1,971.59)	-19.72%	12,000.00	20.00%
Total 4090-00 - TIEDOWN PERMIT FEES REVENUE	9,910.21	11,117.17	9,083.00	9,906.23	11,971.59	10,000.00	(1,971.59)	-19.72%	12,000.00	20.00%
4100-00 - POSTAL CARGO REVENUE										
4100-01 - Cargo Carriers - Landing Fees	4,661.22	9,924.28	5,016.54	10,204.35	5,392.03	10,200.00	4,807.97	47.14%	10,500.00	2.94%
4100-02 - Postal Cargo - Tiedown	2,970.00	2,970.00	2,970.00	3,596.99	2,970.00	3,000.00	30.00	1.00%	3,000.00	0.00%
Total 4100-00 - POSTAL CARGO REVENUE	7,631.22	12,894.28	7,986.54	13,801.34	8,362.03	13,200.00	4,837.97	36.65%	13,500.00	2.27%
4110-00 - MISCELLANEOUS REVENUE										
4110-01 - Misc. Revenue	13,067.52	13,236.83	41.94	444.16	90.36	0.00	(90.36) 0.00	0.00%	5,000.00	100.00% 0.00%
4110-05 - Misc. Incident/Accident	(417.53)	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
4110-09 - Misc. Expense Reimbursement	445.33	13,548.40	0.00	4,127.28	8.75	0.00	(8.75)	0.00%	0.00	0.00%
Total 4110-00 - MISCELLANEOUS REVENUE	13,095.32	26,785.23	41.94	4,571.44	99.11	0.00	(99.11)	0.00%	5,000.00	0.00%
4120-00 - GROUND TRANSP. PERMIT REVENUE										
4120-01 - Ground Transportation Permit	13,150.00	15,550.00	18,300.00	19,900.00	19,000.00	19,000.00	0.00	0.00%	20,000.00	5.26%
4120-02 - GTSP - Trip Fee	1,720.00	3,200.00	2,080.00	4,620.00	2,580.00	5,000.00	2,420.00	48.40%	5,000.00	0.00%
Total 4120-00 - GROUND TRANSP. PERMIT REVENUE	14,870.00	18,750.00	20,380.00	24,520.00	21,580.00	24,000.00	2,420.00	10.08%	25,000.00	4.17%
4400-00 - TSA/SECURITY										
4400-02 - Terminal Lease	20,182.50	40,365.00	20,182.50	40,365.00	20,182.50	40,380.00	20,197.50	50.02%	40,380.00	0.00%
4400-03 - Security Prox. Cards	26,412.00	36,182.00	27,550.00	35,640.00	25,560.00	30,000.00	4,440.00	14.80%	30,000.00	0.00%
Total 4400-00 - TSA/SECURITY	46,594.50	76,547.00	47,732.50	76,005.00	45,742.50	70,380.00	24,637.50	35.01%	70,380.00	0.00%
4500-00 - IDAHO STATE GRANT PROGRAM REV.										
4500-18 - SUN-18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
4500-19 - SUN-19	0.00	0.00	0.00	0.00	25,000.00	25,000.00	0.00	0.00%	0.00	-100.00%
4500-20 - SUN-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	15,000.00	0.00%
Total 4500-00 - IDAHO STATE GRANT PROGRAM REV.	0.00	0.00	0.00	0.00	25,000.00	25,000.00	0.00	0.00%	15,000.00	-40.00%
4510-00 - SMALL COMMUNITY AIR SERV. GRANT										
4510-01 - Small Community Air Service Grant 2013	0.00	0.00	0.00	500,000.00	0.00	0.00	0.00	0.00%	0.00	0.00%
4510-02 - Small Community Air Service Grant 2016	0.00	0.00	299,465.27	171,562.52	0.00	369,700.00	369,700.00	100.00%	0.00	-100.00%
Total 4510-00 - SMALL COMMUNITY AIR SERV. GRANT	0.00	0.00	299,465.27	671,562.52	0.00	369,700.00	369,700.00	100.00%	0.00	-100.00%
4600-00 - INTEREST REVENUE										
4520-01 - Interest Revenue - General	5,859.69	14,949.99	15,605.57	41,747.23	27,270.52	24,500.00	(2,770.52)	-11.31%	45,000.00	83.67%
4520-07 - Interest Revenue - '14 PFC	7.15	16.53	8.39	16.50	44.95	50.00	5.05	10.10%	0.00	-100.00%
4520-08 - Finance Fee Rev.	0.00	0.00	6.70	171.74	0.00	0.00	0.00	0.00%	0.00	0.00%
Total 4600-00 - INTEREST REVENUE	5,866.84	14,966.52	15,620.66	41,935.47	27,315.47	24,550.00	(2,765.47)	-11.27%	45,000.00	83.30%

Friedman Memorial Airport FY 2020 Budget - Combined										
	FY '17		FY '18		FY '19			FY '20		Notes
	Oct '16 - Mar 17	Year End	Oct '17 - Mar '18	Year End	Oct '18 - Mar '19	Budget	Budget Remaining	% Remaining	Proposed Budget	% Change from Prev. Yr. Budget
4742-00 - AIP 42										
Expand Aircarrier Apron -(phase 1 - Design)										
4742-01 - AIP '42 Air Carrier Apron	97,147.59	142,425.95	0.00	0.00	25,566.99	0.00	(25,566.99)	0.00%	0.00	0.00%
Total 4742-00 - AIP 42	97,147.59	142,425.95	0.00	0.00	25,566.99	0.00	(25,566.99)	0.00%	0.00	0.00%
4743-00 - AIP 43										
Rehabilitate R/W 13/31 (maintenance), Acquire SRE (loader mounted snow blow and snow plow); Apron Expansion (north terminal) (Phase 2 - construction)										
4743-01 - AIP '43	0.00	280,963.84	396,418.17	1,912,661.70	330,959.26	461,985.40	131,026.14	28.36%	0.00	-100.00%
Total 4743-00 - AIP 43	0.00	280,963.84	396,418.17	1,912,661.70	330,959.26	461,985.40	131,026.14	28.36%	0.00	-100.00%
4744-00 - AIP 44										
Conduct Environmental Study (RPZ)										
4744-01 - AIP '44	0.00	69,729.54	20,779.85	22,893.53	2,866.78	0.00	(2,866.78)	0.00%	0.00	0.00%
Total 4744-00	0.00	69,729.54	20,779.85	22,893.53	2,866.78	0.00	(2,866.78)	0.00%	0.00	0.00%
4745-00 - AIP 45										
Expand Apron (north terminal apron) (Phase 3 - Construct Schedule B)										
4745-01 - AIP '45	0.00	0.00	0.00	154,473.02	503,143.10	1,490,625.00	1,387,481.90	93.08%	0.00	-100.00%
4745-02 - AIP '45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
Total 4745-00 - AIP 45	0.00	0.00	0.00	154,473.02	503,143.10	1,490,625.00	1,387,481.90	93.08%	0.00	-100.00%
4746-00 - AIP 46										
Acquire ARFF Vehicle (Phase 1 - design), Acquire SRE (high speed broom - Phase 1 - design), ARFF Protective Clothing (six sets of protective clothing and self-contained breathing apparatus)										
4746-01 - AIP '46	0.00	0.00	0.00	16,432.90	12,198.30	2,900,000.00	2,887,801.70	99.58%	0.00	-100.00%
4746-02 - AIP '46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
Total 4746-00 - AIP 46	0.00	0.00	0.00	16,432.90	12,198.30	2,900,000.00	2,887,801.70	99.58%	0.00	-100.00%
4747-00 - AIP 47										
4747-01 - AIP '47 TBD - Acquire SRE Broom, Acquire ARFF Vehicle, ATC Design, Obstruction Removal (ph.2)										
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	1,866,046.88	0.00%
Total 4747-00 - AIP 47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	1,866,046.88	0.00%
4748-00 - AIP 48										
TBD - SRE Acquisition, Pavement Rehab., Terminal Area Plan (TAP)										
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	984,375.00	0.00%
Total 4748-00 - AIP 48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	984,375.00	0.00%
Revenue From Reserve	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
Total Revenue From Reserve	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
TOTAL REVENUE	1,731,352.32	4,157,877.59	2,431,518.89	6,615,685.67	2,852,392.08	9,680,794.92	7,228,402.84	74.67%	7,333,341.88	-24.25%

Friedman Memorial Airport FY 2020 Budget - Combined										
	FY '17		FY '18		FY '19			FY '20		Notes
	Oct '16 - Mar 17	Year End	Oct '17 - Mar '18	Year End	Oct '18 - Mar '19	Budget	Budget Remaining	% Remaining	Proposed Budget	% Change from Prev. Yr. Budget
"A" EXPENSES										
5000-00 · A EXPENDITURES										
5000-01 · Salaries - Airport Manager	67,724.99	137,925.00	73,391.07	147,576.99	76,388.82	148,372.00	71,983.18	48.52%	157,560.58	6.19%
5000-02 · Salaries - Assistant Airport Manager	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
5010-00 · Salaries -Contracts/Finance Adm	49,523.10	99,784.46	52,600.62	105,807.06	116,883.73	106,420.00	(10,463.73)	-9.83%	113,010.33	6.19%
5010-01 · Salaries - Office Assist.	97,826.76	196,730.49	108,893.98	215,258.09	67,211.64	209,423.00	142,211.36	67.91%	205,000.00	-2.11%
5010-01 · Salaries - Public Information Officer	0.00	0.00	0.00	0.00	0.00	35,000.00	35,000.00	100.00%	0.00	-100.00%
5020-00 · Salaries - ARFF/OPS Manager	46,116.75	96,876.95	50,806.14	104,075.78	57,854.89	103,023.00	45,168.11	43.84%	109,402.57	6.19%
5030-00 · Salaries - ARFF/OPS Specialist	163,379.29	334,947.71	201,327.46	412,348.18	223,397.88	422,477.00	199,079.12	47.12%	448,641.01	6.19%
5040-00 · Salaries-ASC/Sp.Prjct./Ex. Assi	36,640.18	75,569.08	40,490.79	81,781.05	43,303.44	79,259.00	35,955.56	45.37%	84,166.98	6.19%
5050-00 · Salaries - Seasonal Snow Removal	23,099.50	23,099.50	24,412.00	22,236.00	20,268.00	40,000.00	19,732.00	49.33%	55,000.00	37.50% 2 Additional Snow Removal
5050-01 · Salaries - Seasonal - Arprt. Host	3,570.00	3,570.00	3,626.00	3,626.00	3,814.00	3,500.00	(314.00)	-8.97%	5,000.00	42.86%
5050-02 · Salaries - Salary Adjustment/Merit	0.00	0.00	0.00	0.00	0.00	64,541.96	64,541.96	100.00%	44,623.92	-30.86%
5060-01 · Overtime - General	0.00	0.00	0.00	0.00	0.00	2,000.00	2,000.00	100.00%	2,000.00	0.00%
5060-02 · Overtime - Snow Removal	57,388.10	60,438.29	8,850.11	15,596.55	55,157.51	20,000.00	(35,157.51)	-175.79%	45,000.00	125.00%
5060-04 · OT - Security	0.00	0.00	0.00	0.00	0.00	5,000.00	5,000.00	100.00%	5,000.00	0.00%
5070-05 · Compensated Absenses Accrued	0.00	0.00	0.00	0.00	0.00	29,500.00	29,500.00	100.00%	0.00	-100.00%
5100-00 · Retirement	64,665.73	120,820.21	62,323.33	125,470.97	73,689.73	159,800.00	86,110.27	53.89%	140,973.71	-11.78%
5110-00 · Social Security/Medicare	40,791.59	76,766.42	40,926.12	81,078.90	47,930.43	108,230.00	60,299.57	55.71%	92,889.65	-14.17%
5120-00 · Life Insurance	768.24	1,556.58	1,044.11	1,808.96	821.19	2,000.00	1,178.81	58.94%	2,000.00	0.00%
5130-00 · Medical Insurance	75,848.59	156,672.44	94,023.20	195,486.68	85,311.14	220,500.00	135,188.86	61.31%	220,500.00	0.00%
5160-00 · Workman's Compensation	15,578.00	13,150.50	13,466.00	13,389.50	17,010.00	16,000.00	(1,010.00)	-6.31%	20,000.00	25.00%
5170-00 · Unemployment Claims	0.00	31.32	121.32	518.54	961.88	0.00	(961.88)	0.00%	0.00	0.00% Not budgeted
TOTAL "A" EXPENDITURES	742,920.82	1,397,938.95	776,302.25	1,526,059.25	890,004.28	1,775,045.96	885,041.68	49.86%	1,750,768.74	-1.37%

Friedman Memorial Airport FY 2020 Budget - Combined										
	FY '17		FY '18		FY '19			FY '20		Notes
	Oct '16 - Mar 17	Year End	Oct '17 - Mar '18	Year End	Oct '18 - Mar '19	Budget	Budget Remaining	% Remaining	Proposed Budget	% Change from Prev. Yr. Budget
"B" EXPENSES - ADMINISTRATIVE										
6000-00 - TRAVEL EXPENSE										
6000-01 - Travel - Conference/Project Expenses	4,668.03	16,766.20	2,165.35	10,205.42	19,316.56	32,000.00	12,683.44	39.64%	37,400.00	16.88%
Total 6000-00 - TRAVEL EXPENSE	4,668.03	16,766.20	2,165.35	10,205.42	19,316.56	32,000.00	12,683.44	39.64%	37,400.00	16.88%
6010-00 - SUPPLIES/EQUIPMENT EXPENSE										
6010-01 - Supplies - Office	5,337.29	10,344.63	5,458.33	8,199.15	5,684.63	11,000.00	5,315.37	48.32%	11,000.00	0.00%
6010-03 - Supplies - Computer	1,018.25	4,843.34	2,833.43	5,297.13	8,240.12	13,000.00	4,759.88	36.61%	13,000.00	0.00%
Total 6010-00 - SUPPLIES/EQUIPMENT EXPENSE	6,355.54	15,187.97	8,291.76	13,496.28	13,924.75	24,000.00	10,075.25	41.98%	24,000.00	0.00%
6020-00 - INSURANCE										
6020-01 - Insurance - Liability	11,640.00	11,640.00	14,200.00	14,200.00	25,346.00	50,692.00	25,346.00	50.00%	55,000.00	8.50%
6020-02 - Insurance - Public Officials	5,402.26	5,402.26	24,850.00	24,850.00	0.00	0.00	0.00	0.00%	0.00	0.00%
6020-03 - Insurance-Bldg/Unlic.Veh./Prop	39,896.60	40,615.60	11,150.00	11,150.00	0.00	0.00	0.00	0.00%	0.00	0.00%
6020-04 - Insurance - Licensed Vehicles	4,673.00	4,673.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
Total 6020-00 - INSURANCE	61,611.86	62,330.86	50,200.00	50,200.00	25,346.00	50,692.00	25,346.00	50.00%	55,000.00	8.50%
6030-00 - UTILITIES										
6030-01 - Utilities - Gas/Terminal	7,356.89	16,986.89	10,008.00	19,010.97	7,422.73	20,000.00	12,577.27	62.89%	20,000.00	0.00%
6030-02 - Utilities - Gas/AOB & Cold Storage	3,705.13	8,097.13	5,058.77	8,359.10	2,406.00	9,500.00	7,094.00	74.67%	9,500.00	0.00%
6030-03 - Utilities - Elect./Runway&PAPI	4,619.81	7,829.56	4,157.12	7,108.32	3,489.90	8,200.00	4,710.10	57.44%	8,200.00	0.00%
6030-04 - Utilities - Elec./AOB & Cold Storage	5,473.01	9,894.86	4,093.18	8,547.10	3,902.13	9,500.00	5,597.87	58.93%	9,500.00	0.00%
6030-05 - Utilities - Electric/Terminal	22,821.48	43,540.04	21,609.46	42,826.93	32,040.33	44,000.00	11,959.67	27.18%	50,000.00	13.64%
6030-06 - Utilities - Telephone	7,539.35	15,720.68	7,756.90	15,786.14	8,382.66	16,000.00	7,617.34	47.61%	16,500.00	3.13%
6030-07 - Utilities - Water	460.90	11,978.94	647.54	6,239.30	1,469.12	16,000.00	14,530.88	90.82%	20,000.00	25.00%
6030-08 - Utilities - Garbage Removal	5,056.99	9,838.96	3,963.95	9,086.57	7,414.41	10,000.00	2,585.59	25.86%	12,000.00	20.00%
6030-09 - Utilities - Sewer	1,623.70	3,626.68	2,002.98	4,045.80	1,751.42	4,000.00	2,248.58	56.22%	4,000.00	0.00%
6030-11 - Utilities - Electric/Tower	3,252.63	5,306.22	3,505.88	5,643.80	3,335.38	6,300.00	2,964.62	47.06%	6,500.00	3.18%
6030-12 - Utilities - Elec./Brdfrd. Hghl	269.25	429.73	246.57	391.40	248.41	500.00	251.59	50.32%	500.00	0.00%
6030-13 - Utilities - Elec. - Exit Booth	0.00	0.00	0.00	88.05	1,561.81	0.00	(1,561.81)	0.00%	3,000.00	100.00%
6030-15 - Utilities - Elec/AWOS	1,716.20	3,089.38	1,960.49	3,422.22	2,219.29	3,400.00	1,180.71	34.73%	3,500.00	2.94%
6030-16 - Utilities - Elec. Wind Cone	64.91	114.75	63.29	680.10	61.24	150.00	88.76	59.17%	150.00	0.00%
6030-17 - Utilities - Elec./Gas - Hangar	2,538.27	4,521.65	2,510.19	3,731.11	1,923.30	4,600.00	2,676.70	58.19%	4,000.00	-13.04%
6030-18 - Utilities - Lubricant Waste Disposal	0.00	0.00	302.64	(2,643.67)	0.00	500.00	500.00	100.00%	500.00	0.00%
Total 6030-00 - UTILITIES	66,498.52	140,975.47	67,886.96	132,323.24	77,628.13	152,650.00	75,021.87	49.15%	167,850.00	9.96%
6040-00 - SERVICE PROVIDER										
6040-01 - Service Provider - General	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
6040-02 - Service Provider - Term. Services	2,954.34	5,938.68	2,485.56	4,286.00	2,263.03	6,900.00	4,636.97	67.20%	7,500.00	8.70%
6040-03 - Service Provider - AOB Services	11,419.00	29,146.41	24,287.95	48,882.88	29,905.55	43,300.00	13,394.45	30.93%	44,400.00	2.54%
6040-04 - Service Provider - Operations	15,022.00	15,022.00	14,069.36	14,069.36	13,350.00	16,350.00	3,000.00	18.35%	16,000.00	-2.14%
Total 6040-00 - SERVICE PROVIDER	29,395.34	50,107.09	40,842.87	67,238.24	45,518.58	66,550.00	21,031.42	31.60%	67,900.00	2.03%

Friedman Memorial Airport FY 2020 Budget - Combined										
	FY '17		FY '18		FY '19			FY '20		Notes
	Oct '16 - Mar 17	Year End	Oct '17 - Mar '18	Year End	Oct '18 - Mar '19	Budget	Budget Remaining	% Remaining	Proposed Budget	% Change from Prev. Yr. Budget
6050-00 · PROFESSIONAL SERVICES										
6050-01 · Professional Services - Legal	16,030.30	30,615.30	24,151.30	55,296.70	16,803.60	50,000.00	33,196.40	66.39%	50,000.00	0.00%
6050-02 · Professional Services - Audit/Finance	31,518.88	44,809.93	61,307.74	95,610.28	40,137.81	50,000.00	9,862.19	19.72%	47,000.00	-6.00%
6050-03 · Professional Services - Engineer	3,438.75	16,068.75	12,441.25	50,960.17	8,603.25	15,000.00	6,396.75	42.65%	25,000.00	66.67%
6050-05 · Professional Services - Gen.	4,300.00	14,051.62	10,314.17	16,040.97	14,652.80	10,000.00	(4,652.80)	-46.53%	10,000.00	0.00%
6050-07 · Professional Services - Architect	0.00	0.00	0.00	1,320.00	0.00	0.00	0.00	0.00%	0.00	0.00%
6050-10 · Prof. Svcs.-IT/Comp. Support	7,167.50	11,821.25	5,625.73	11,136.98	11,467.50	15,000.00	3,532.50	23.55%	15,000.00	0.00%
6050-12 · Prof. Serv.-Planning - Air Service	185.00	2,035.00	0.00	30.00	1,281.25	11,475.00	10,193.75	88.83%	8,000.00	-30.28%
6050-13 · Prof. Serv.-Website Design & Maintenance	4,437.80	7,687.78	932.66	1,750.66	1,025.00	4,000.00	2,975.00	74.38%	4,000.00	0.00%
6050-15 · Profesional Services - Comm Coord/Outreach	1,133.00	8,412.68	6,708.30	26,916.27	600.00	47,000.00	46,400.00	98.72%	37,000.00	-21.28%
6050-17 · Profesional Services - Airspace Consulting	0.00	11,155.19	9,976.96	16,177.92	11,878.60	42,000.00	30,121.40	71.72%	90,000.00	114.29%
6050-19 · Profesional Services - ATCT Relocation	0.00	0.00	0.00	0.00	5,210.00	0.00	(5,210.00)	0.00%	30,000.00	0.00%
Total 6050-00 · PROFESSIONAL SERVICES	68,211.23	146,657.50	131,458.11	275,239.95	111,659.81	244,475.00	132,815.19	54.33%	316,000.00	29.26%
6060-00 · MAINTENANCE-OFFICE EQUIPMENT										
6060-01 · Maint.-Office Equip./Gen.	15.50	23.09	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
6060-04 · Maintenance - Copier	886.08	2,340.95	1,059.19	1,944.54	836.45	2,500.00	1,663.55	66.54%	2,000.00	-20.00%
6060-05 · Maintenance - Phone	1,215.00	1,215.00	1,215.00	1,215.00	1,262.65	1,250.00	(12.65)	-1.01%	1,250.00	0.00%
Total 6060-00 · MAINTENANCE-OFFICE EQUIPMENT	2,116.58	3,579.04	2,274.19	3,159.54	2,099.10	3,750.00	1,650.90	44.02%	3,250.00	-13.33%
6070-00 · RENT/LEASE OFFICE EQUIPMENT										
6070-02 · Rent/Lease - Postage Meter	624.00	1,248.00	604.65	1,189.95	565.95	1,200.00	634.05	52.84%	1,200.00	0.00%
Total 6070-00 · RENT/LEASE OFFICE EQUIPMENT	624.00	1,248.00	604.65	1,189.95	565.95	1,200.00	634.05	52.84%	1,200.00	0.00%
6080-00 · DUES/MEMBERSHIPS/PUBLICATIONS E										
6080-01 · Dues/Memberships	6,466.42	10,853.94	4,180.74	6,455.74	4,753.98	6,000.00	1,246.02	20.77%	6,000.00	0.00%
6080-04 · Publications	12,515.21	23,294.49	14,003.40	16,122.19	3,642.97	5,000.00	1,357.03	27.14%	5,000.00	0.00%
Total 6080-00 · DUES/MEMBERSHIPS/PUBLICATIONS E	18,981.63	34,148.43	18,184.14	22,577.93	8,396.95	11,000.00	2,603.05	23.66%	11,000.00	0.00%
6090-00 · POSTAGE										
6090-01 · Postage/Courier Service	796.07	1,243.01	410.64	721.53	845.86	2,000.00	1,154.14	57.71%	2,000.00	0.00%
Total 6090-00 · POSTAGE	796.07	1,243.01	410.64	721.53	845.86	2,000.00	1,154.14	57.71%	2,000.00	0.00%
6100-00 · EDUCATION/TRAINING										
6100-01 · Education/Training - Admin.	2,763.00	5,110.00	0.00	635.00	0.00	15,000.00	15,000.00	100.00%	15,000.00	0.00%
6100-02 · Education/Training - OPS	1,121.00	3,178.04	4,888.41	6,828.78	2,402.78	10,000.00	7,597.22	75.97%	15,000.00	50.00%
6100-03 · Education/Training - ARFF	6,505.36	11,971.75	8,895.75	12,464.25	9,392.47	23,500.00	14,107.53	60.03%	18,000.00	-23.40%
6100-04 · Education/Training - Trienn. Drill	0.00	4,495.39	0.00	0.00	0.00	0.00	0.00	0.00%	7,500.00	100.00%
6100-06 · Education - Security	0.00	0.00	0.00	0.00	0.00	5,000.00	5,000.00	100.00%	3,000.00	-40.00%
6100-08 · Education/Training - HFD Coop.	997.50	997.50	0.00	799.50	0.00	5,000.00	5,000.00	100.00%	5,000.00	0.00%
Total 6100-00 · EDUCATION/TRAINING	11,386.86	25,752.68	13,784.16	20,727.53	11,795.25	58,500.00	46,704.75	79.84%	63,500.00	8.55%
6101-00 · PUBLIC OUTREACH/COMMUNICATIONS										
6101-01 · Public Outr/Comm - Publications/Sponsorships	2,301.41	4,763.07	668.34	12,647.62	14,506.19	33,000.00	18,493.81	56.04%	33,000.00	0.00%
6101-02 · Public Outr/Comm - Noise Abatement	1,402.47	1,470.03	0.00	120.00	0.00	500.00	500.00	100.00%	500.00	0.00%
6101-03 · Public Outr/Comm - SAAC	0.00	0.00	4,054.69	6,576.04	4,014.74	7,000.00	2,985.26	42.65%	8,000.00	14.29%
Total 6101-00 · PUBLIC OUTREACH/COMMUNICATIONS	3,703.88	6,233.10	4,723.03	19,343.66	18,520.93	40,500.00	21,979.07	54.27%	41,500.00	2.47%

Friedman Memorial Airport FY 2020 Budget - Combined										
	FY '17		FY '18		FY '19			FY '20		Notes
	Oct '16 - Mar 17	Year End	Oct '17 - Mar '18	Year End	Oct '18 - Mar '19	Budget	Budget Remaining	% Remaining	Proposed Budget	% Change from Prev. Yr. Budget
6110-00 · CONTRACTS										
6110-01 · Contracts - General	125.00	708.35	0.00	0.00	0.00	1,000.00	1,000.00	100.00%	1,000.00	0.00%
6110-02 · Contracts - FMAA	21,000.00	42,000.00	21,000.00	42,000.00	21,000.00	42,000.00	21,000.00	50.00%	42,000.00	0.00%
6110-03 · Contracts - FBO/Fee Collection	29,400.00	58,800.00	29,400.00	58,800.00	29,400.00	58,900.00	29,500.00	50.09%	58,900.00	0.00%
6110-08 · Contracts - Eccles Tree Lights	17,500.00	47,500.00	0.00	10,000.00	7,500.00	0.00	(7,500.00)	0.00%	0.00	0.00%
6110-16 · Contracts - Prkg Mngt Fee/Ops	0.00	0.00	9,268.27	164,943.90	179,233.86	180,000.00	766.14	0.43%	165,000.00	-8.33%
Total 6110-00 · CONTRACTS	68,025.00	149,008.35	59,668.27	275,743.90	237,133.86	281,900.00	44,766.14	15.88%	266,900.00	-5.32%
6120-00 · PERMITS										
6120-01 · Permits - General	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
Total 6120-00 · PERMITS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
6130-00 · MISCELLANEOUS EXPENSES										
6130-01 · Misc. - General	7,194.40	10,756.39	23,286.12	34,283.94	12,001.64	15,000.00	2,998.36	19.99%	15,000.00	0.00%
6140-00 · Bank Fees	174.00	497.31	638.92	157.20	8,144.28	1,500.00	(6,644.28)	-442.95%	16,000.00	966.67%
6150-01 · Interest Exp - Prkg. Lot Equip	0.00	0.00	808.65	5,229.65	3,855.80	6,600.00	2,744.20	41.58%	6,600.00	0.00%
Total 6130-00 · MISCELLANEOUS EXPENSES	7,368.40	11,253.70	24,733.69	39,670.79	24,001.72	23,100.00	(901.72)	-3.90%	37,600.00	62.77%
6400-00 · DOT/SCASGP										
6400-01 · DOT/SCASGP	0.00	0.00	299,465.27	671,562.52	0.00	365,000.00	365,000.00	100.00%	0.00	-100.00%
6400-02 · DOT/SCASGP - FMAA	6,514.71	13,628.74	5,065.80	10,058.09	0.00	0.00	0.00	0.00%	0.00	0.00%
Total 6400-00 · DOT/SCASGP	6,514.71	13,628.74	304,531.07	681,620.61	0.00	365,000.00	365,000.00	100.00%	0.00	-100.00%
TOTAL "B" ADMINISTRATIVE EXPENSES	356,257.65	678,120.14	729,758.89	1,613,458.57	596,753.45	1,357,317.00	760,563.55	56.03%	1,095,100.00	-19.32%

Friedman Memorial Airport FY 2020 Budget - Combined										
	FY '17		FY '18		FY '19			FY '20		Notes
	Oct '16 - Mar 17	Year End	Oct '17 - Mar '18	Year End	Oct '18 - Mar '19	Budget	Budget Remaining	% Remaining	Proposed Budget	% Change from Prev. Yr. Budget
"B" EXPENSES - OPERATIONS										
6500-00 · SUPPLIES/EQUIPMENT- OPERATIONS										
6500-01 · Supplies/Equipment - General	1,360.54	2,011.98	2,517.40	4,917.74	4,137.32	5,000.00	862.68	17.25%	5,000.00	0.00%
6500-02 · Supplies/Equipment - Tools	1,576.17	5,175.88	4,491.83	7,455.04	3,721.40	5,000.00	1,278.60	25.57%	500.00	-90.00% Norco (\$327/yr)
6500-03 · Supplies/Equipment - Clothing	2,363.20	4,840.50	3,426.92	3,426.92	2,358.78	5,000.00	2,641.22	52.82%	5,000.00	0.00%
6500-04 · Supplies/Equipment - Janitorial	8,666.73	16,431.02	8,908.70	18,895.49	10,158.04	20,000.00	9,841.96	49.21%	20,000.00	0.00%
Total 6500-00 · SUPPLIES/EQUIPMENT - OPERATIONS	13,966.64	28,459.38	19,344.85	34,695.19	20,375.54	35,000.00	14,624.46	41.78%	30,500.00	-12.86%
6505-00 · EQUIP/VEHICLE-LEASE/RENTAL										
6505-01 · General	0.00	0.00	55,230.00	59,750.00	48,559.84	50,000.00	1,440.16	2.88%	90,000.00	80.00% Loader -2 (\$80K); Skid Steer (\$10K)Additional nal Equipment needs
Total 6510-00 · EQUIP/VEHICLE-LEASE/RENTAL	0.00	0.00	55,230.00	59,750.00	48,559.84	50,000.00	1,440.16	2.88%	90,000.00	80.00%
6510-00 · FUEL/LUBRICANTS										
6510-01 · General	491.84	1,081.93	0.00	4.48	0.00	2,000.00	2,000.00	100.00%	2,000.00	0.00%
6510-02 · Fuel	38,103.51	42,628.07	17,647.72	22,177.66	35,347.06	45,000.00	9,652.94	21.45%	47,500.00	5.56% Additional Equipment/Personnel for snow removal
6510-03 · Lubricants	2,096.95	3,987.40	0.00	1,081.62	1,923.35	5,000.00	3,076.65	61.53%	6,600.00	32.00% Additional Equipment
Total 6510-00 · FUEL/LUBRICANTS	40,692.30	47,697.40	17,647.72	23,263.76	37,270.41	52,000.00	14,729.59	28.33%	56,100.00	7.89%
6520-00 · VEHICLES/MAINTENANCE										
6520-01 · R/M Equipment - General	497.13	8,332.83	881.42	997.34	5,682.16	8,000.00	2,317.84	28.97%	8,000.00	0.00% Hydraulic Hose Fittings, Cutting Edges, Electrical Hardware, Nuts & Bolts
6520-06 · R/M Equip. '85 Ford Dump	23.00	190.65	0.00	674.33	0.00	500.00	500.00	100.00%	500.00	0.00%
6520-08 · R/M Equip. - '96 Tiger Tractor	1,724.54	2,260.53	136.51	1,350.85	262.81	2,750.00	2,487.19	90.44%	6,400.00	132.73% Gearbox Rebuild \$5K
6520-09 · R/M Equip. - '96 Oshkosh Swp.	2,470.60	2,782.53	489.16	489.16	1,375.83	9,725.00	8,349.17	85.85%	3,350.00	-65.55%
6520-17 · R/M Equip. '01 Case 921 Ldr.	1,304.90	1,744.45	584.84	584.84	415.39	2,200.00	1,784.61	81.12%	2,200.00	0.00% Additional maintenance needs - aging equipment
6520-18 · R/M Equip. - '97 Chevy Blazer	23.00	43.14	0.00	0.00	0.00	2,000.00	2,000.00	100.00%	1,650.00	-17.50% To repair to operational condition
6520-19 · R/M Equip. - '02 Ford F-150 Truck	177.88	392.25	0.00	509.78	695.32	1,150.00	454.68	39.54%	1,200.00	4.35% To rebuild if it remains in fleet
6520-20 · R/M Equip. - '02 Kodiak Blower	1,503.36	2,666.51	8,908.82	8,908.82	3,794.46	900.00	(2,894.46)	-321.61%	900.00	0.00% Increased maintenace needs
6520-25 · R/M Equip. - '04 Batts De-Ice	2,371.54	2,371.54	53.52	53.52	0.00	1,000.00	1,000.00	100.00%	5,500.00	450.00% \$5500 upgrade electronics
6520-28 · R/M Equip. - '06 Case 621 Loader	480.00	541.40	0.00	0.00	9,222.73	1,975.00	(7,247.73)	-366.97%	2,425.00	22.79%
6520-29 · R/M Equip. - '10 Wausau Broom/Plow	14,196.00	19,120.95	12,497.44	12,854.01	12,073.72	14,000.00	1,926.28	13.76%	32,000.00	128.57% Tires \$18K\Broom Wafers \$9K
6520-30 · R/M Equip. - '05 Ford F-350	4,442.59	4,703.60	6.98	2,891.53	1,559.18	1,750.00	190.82	10.90%	9,400.00	437.14% Rear seal replacement and rebuild \$7K
6520-31 · R/M Equip. - '10 Oshkosh Blower	4,800.69	8,274.71	2,610.26	2,610.26	1,280.29	3,100.00	1,819.71	58.70%	3,100.00	0.00%
6520-32 · R/M Equip. - '09 Mini Truck	0.00	74.70	4.77	4.77	127.98	200.00	72.02	36.01%	200.00	0.00%
6520-34 · R/M Equip. - '12 Case 921F Loader	1,084.39	1,571.38	77.72	378.93	2,286.67	2,350.00	63.33	2.70%	2,300.00	-2.13%
6520-35 · R/M Equip. - '14 Ford Explorer	263.00	704.78	80.77	277.12	1,053.73	700.00	(353.73)	-50.53%	575.00	-17.86%
6520-36 · R/M Equip. - '10 Toyota Forklift	0.00	0.00	0.00	147.51	0.00	500.00	500.00	100.00%	650.00	30.00%
6520-37 · R/M Equip. - '15 Tool Cat	851.36	1,501.24	102.52	1,986.12	773.95	1,000.00	226.05	22.61%	3,200.00	220.00% Tires \$1500
6520-38 · R/M Equip. - '15 Wausau Broom	1,751.02	2,331.56	9,646.09	9,711.42	16,328.09	13,050.00	(3,278.09)	-25.12%	15,800.00	21.07% Broom Wafer Replacements (\$9K)
6520-40 · R/M Equip. - '17 Ford-350 Super Cab	1,624.31	1,772.81	1,407.16	1,441.16	4,675.58	450.00	(4,225.58)	-939.02%	450.00	0.00%
6520-41 · R/M Equip. - '17 Kodiak Blower	0.00	0.00	23.87	23.87	136.65	450.00	313.35	69.63%	1,700.00	277.78%
6520-42 · R/M Equip. - '18 Kodiak Attachment	0.00	0.00	0.00	0.00	4.00	0.00	(4.00)	0.00%	0.00	0.00%
6520-43 · R/M Equip. - '18 279D Skid Steer	0.00	0.00	0.00	0.00	268.57	0.00	(268.57)	0.00%	2,500.00	100.00% Ramp type plow for parking lot \$2K
6520-44 · R/M Equip. - '18 972M Loader	0.00	0.00	0.00	0.00	588.85	0.00	(588.85)	0.00%	1,000.00	100.00%
6520-45 · R/M Equip. - '19 Oshkosh Broom	0.00	0.00	0.00	0.00	55.92	0.00	(55.92)	0.00%	11,500.00	100.00% \$9K Wafers
Total 6520-00 · VEHICLES/MAINTENANCE	39,589.31	61,381.56	37,511.85	45,895.34	62,661.88	67,750.00	5,088.12	7.51%	116,500.00	71.96%
6530-00 · ARFF MAINTENANCE										
6530-01 · ARFF Maint. General/Supplies	11,322.60	15,412.14	9,701.11	10,774.82	2,014.70	13,000.00	10,985.30	84.50%	10,000.00	-23.08% Purple K (\$5K) Foam (\$5K)
6530-03 · ARFF Maint. - '87 Oshkosh	119.09	372.23	327.00	400.88	0.00	2,000.00	2,000.00	100.00%	2,450.00	22.50%
6530-04 · ARFF Maint. - Radios	540.20	1,535.53	3,009.94	3,727.43	0.00	7,000.00	7,000.00	100.00%	3,000.00	-57.14%
6530-05 · ARFF Maint. - '03 E-One	409.99	935.95	666.57	1,753.70	2,968.70	2,000.00	(968.70)	-48.44%	2,450.00	22.50%
6530-07 · Supplies/Equipment - ARFF - HFD Support	0.00	0.00	0.00	164.00	0.00	0.00	0.00	0.00%	0.00	0.00%
Total 6530-00 · ARFF MAINTENANCE	12,391.88	18,255.85	13,704.62	16,820.83	4,983.40	24,000.00	19,016.60	79.24%	17,900.00	-25.42%



Friedman Memorial Airport FY 2020 Budget - Combined										
	FY '17		FY '18		FY '19			FY '20		Notes
	Oct '16 - Mar 17	Year End	Oct '17 - Mar '18	Year End	Oct '18 - Mar '19	Budget	Budget Remaining	% Remaining	Proposed Budget	% Change from Prev. Yr. Budget
6540-00 - REPAIRS/MAINTENANCE - BUILDING										
6540-01 - R/M Bldg. - General	309.52	508.97	99.50	99.50	509.00	2,500.00	1,991.00	79.64%	2,000.00	-20.00%
6540-02 - R/M Bldg. - Terminal	46,793.77	88,248.08	34,975.56	82,110.52	35,254.02	120,000.00	84,745.98	70.62%	95,000.00	-20.83%
6540-03 - R/M Bldg. - Terminal Concession	0.00	378.80	2,422.30	2,789.74	766.01	2,500.00	1,733.99	69.36%	2,500.00	0.00%
6540-04 - R/M Bldg. - Cold Storage	784.96	2,508.35	295.49	295.49	318.50	5,000.00	4,681.50	93.63%	2,000.00	-60.00%
6540-05 - R/M Bldg. - AOB/SHOP	7,254.12	12,163.84	9,006.79	15,153.28	5,584.21	20,000.00	14,415.79	72.08%	20,000.00	0.00%
6540-06 - R/M Bldg. - Hangars	0.00	1,080.10	8,331.64	14,829.61	439.27	2,500.00	2,060.73	82.43%	2,500.00	0.00%
6540-07 - R/M Bldg. - Tower	2,070.76	2,398.24	3,273.34	4,427.17	1,075.36	3,500.00	2,424.64	69.28%	6,000.00	71.43%
6540-08 - R/M Bldg. - Parking Booth	570.00	1,706.68	228.92	1,831.87	908.26	1,450.00	541.74	37.36%	1,450.00	0.00%
Total 6540-00 - REPAIRS/MAINTENANCE - BUILDING	57,783.13	108,993.06	58,633.54	121,537.18	44,854.63	157,450.00	112,595.37	71.51%	131,450.00	-16.51%
6550-00 - REPAIRS/MAINTENANCE - AIRSIDE										
6550-01 - R/M - General	0.00	790.32	599.91	1,639.15	1,234.76	5,000.00	3,765.24	75.31%	5,000.00	0.00%
6550-02 - R/M - Airfield/Runway	84,425.26	88,459.29	37,551.55	41,263.05	157,086.73	100,000.00	(57,086.73)	-57.09%	60,000.00	-40.00%
6550-02 - R/M - Airfield/Runway - Deice	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	120,000.00	0.00%
6550-04 - R/M - Lights	10,339.50	11,424.33	8,736.42	10,718.34	11,300.10	12,000.00	699.90	5.83%	12,000.00	0.00%
Total 6550-00 - REPAIRS/MAINTENANCE - AIRSIDE	94,764.76	100,673.94	46,887.88	53,620.54	169,621.59	117,000.00	(52,621.59)	-44.98%	197,000.00	68.38%
6551-00 - REPAIRS/MAINTENANCE - LANDSIDE										
6551-01 - RM - General	0.00	0.00	0.00	0.00	0.00	2,500.00	2,500.00	100.00%	2,500.00	0.00%
6551-02 - RM - Parking Lot	0.00	1,278.45	2,331.44	4,544.84	3,333.37	8,000.00	4,666.63	58.33%	8,000.00	0.00%
6551-03 - RM - Landscaping	1,548.19	4,934.08	895.50	10,202.85	997.07	10,000.00	9,002.93	90.03%	10,000.00	0.00%
Total 6560-00 - REPAIRS/MAINTENANCE - LANDSIDE	1,548.19	6,212.53	3,226.94	14,747.69	4,330.44	20,500.00	16,169.56	78.88%	20,500.00	0.00%
6560-00 - SECURITY EXPENSE										
6560-01 - Security - General	20,172.17	36,377.87	3,586.80	8,646.83	4,656.54	9,500.00	4,843.46	50.98%	11,500.00	21.05%
6560-02 - Security - Law Enforcement Officer(LEO)	1,632.00	3,264.00	1,632.00	3,264.00	1,632.00	4,000.00	2,368.00	59.20%	10,000.00	150.00%
6560-03 - Security - Subscription License	21,300.00	42,650.00	19,185.00	48,670.00	36,142.00	61,375.00	25,233.00	41.11%	62,685.00	2.13%
6560-04 - Security - Perim./Access/CCTV	3,482.36	8,557.86	6,759.73	10,907.69	8,034.18	31,600.00	23,565.82	74.58%	17,600.00	-44.30%
6560-05 - Security - Professional Services	0.00	0.00	0.00	2,700.00	0.00	15,000.00	15,000.00	100.00%	15,000.00	0.00%
6560-06 - Security - Prof. Services IT	0.00	0.00	628.57	4,122.32	2,694.25	7,500.00	4,805.75	64.08%	7,500.00	0.00%
Total 6560-00 - SECURITY EXPENSE	46,586.53	90,849.73	31,792.10	78,310.84	53,158.97	128,975.00	75,816.03	58.78%	124,285.00	-3.64%
6570-00 - REPAIRS/MAINT.-AERONAUTICAL EQU										
6570-01 - R/M Aeronautical Equip - NDB/DME	4,568.40	8,686.80	5,643.40	9,761.80	4,118.40	10,000.00	5,881.60	58.82%	10,000.00	0.00%
6570-02 - R/M Aeronautical Equip. - Tower	3,339.20	9,268.81	4,206.06	11,087.06	2,059.20	8,000.00	5,940.80	74.26%	8,000.00	0.00%
6570-03 - R/M Aeron. Equip. - Switching System	0.00	0.00	0.00		0.00		0.00	0.00%		0.00%
6570-04 - R/M Aeron. Equip. - AWOS/ATIS	4,628.40	8,746.80	4,118.40	8,236.80	4,118.40	10,000.00	5,881.60	58.82%	10,000.00	0.00%
Total 6570-00 - REPAIRS/MAINT.-AERONAUTICAL EQU	12,536.00	26,702.41	13,967.86	29,085.66	10,296.00	28,000.00	17,704.00	63.23%	28,000.00	0.00%
TOTAL "B" OPERATIONAL EXPENSES	319,858.74	489,225.86	297,947.36	477,727.03	456,112.70	680,675.00	224,562.30	32.99%	812,235.00	19.33%
TOTAL "B" EXPENSES	676,116.39	1,167,346.00	1,027,706.25	2,091,185.60	1,052,866.15	2,037,992.00	985,125.85	48.34%	1,907,335.00	-6.41%



Friedman Memorial Airport FY 2020 Budget - Combined										
	FY '17		FY '18		FY '19			FY '20		Notes
	Oct '16 - Mar 17	Year End	Oct '17 - Mar '18	Year End	Oct '18 - Mar '19	Budget	Budget Remaining	% Remaining	Proposed Budget	% Change from Prev. Yr. Budget
"C" EXPENSES										
7000-00 - MISC. CAPITAL EXPENDITURES										
7001-0* - Contingency	0.00	0.00	0.00	0.00	0.00	20,000.00	20,000.00	100.00%	25,000.00	25.00%
7001-01 - Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
7001-02 - Buildings and Improvements	0.00	13,034.75	4,239.20	2,309.89	22,870.86	62,400.00	39,529.14	63.35%	55,000.00	-11.86%
7001-03 - Airfield & General Improvements	0.00	2,705.58	0.00	31,912.75	0.00	60,000.00	60,000.00	100.00%	15,000.00	-75.00%
7001-04 - Office Equipment	0.00	0.00	10,903.46	13,061.67	6,218.00	6,700.00	482.00	7.19%	5,000.00	-25.37%
7001-05 - Maintenance Equipment/Vehicles	101,466.95	118,087.12	17,783.00	17,783.00	0.00	110,000.00	110,000.00	100.00%	91,000.00	-17.27%
7001-06 - Assessments/Plans/Studies	9,440.00	14,640.00	7,440.00	11,440.00	2,577.32	135,000.00	132,422.68	98.09%	150,000.00	11.11%
7001-07 - Construction in Progress	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
7001-08 - Federal Grant Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
7001-09 - Security Equipment	0.00	0.00	0.00	0.00	0.00	49,000.00	49,000.00	100.00%	30,500.00	-37.76%
Total 7000-00 - MISC. CAPITAL EXPENDITURES	110,906.95	148,467.45	40,365.66	76,507.31	31,666.18	443,100.00	411,433.82	92.85%	371,500.00	-16.16%
7110-00 - SMALL COMMUNITY AIR SERVICE										
7110-01 - DOT/SCASGP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
7110-02 - DOT/SCASGP - FMAA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
Total 7110-00 - SMALL COMMUNITY AIR SERVICE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
7500-00 - IDAHO STATE GRANT PROGRAM										
7500-18 - '18 ITD Grant (SUN-18 ITD/FMA)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
7500-19 - '19 ITD Grant (SUN-19 ITD/FMA)	0.00	0.00	0.00	0.00	0.00	50,000.00	50,000.00	100.00%	0.00	-100.00%
7500-20 - '20 ITD Grant (SUN-20 ITD/FMA)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
Total 7500-00 - IDAHO STATE GRANT PROGRAM	0.00	0.00	0.00	0.00	0.00	50,000.00	50,000.00	100.00%	0.00	-100.00%
7540-00 - AIP '40 EXPENSE - Safety Area Project II										
7540-01 - AIP '40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
7540-02 - AIP '40 Non Eligible	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
7540-03 - AIP '40/PFC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
7540-04 - AIP '40 Non-Eligible - Terminal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
7540-06 - AIP '40 Non-Eligible - OPS/Adm.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
Total 7540-00 - AIP 40 EXPENSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
7541-00 - AIP '41 EXPENSE - Safety Area Phase III										
7541-01 - AIP '41- Eligible	133,303.65	133,303.65	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
7541-02 - AIP '41- Non-Eligible	9,375.00	9,375.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
7541-07 - AIP '41- RETAINER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
7541-08 - AIP '41- RETAINER PFC	624.99	624.99	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
Total 7541-00 - AIP 41 EXPENSE	143,303.64	143,303.64	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
7542-00 - AIP '42 EXPENSE - Air Carrier Apron										
Expand Aircarrier Apron -(phase 1 - Design)										
7542-01 - AIP '42- Eligible	182,923.18	213,102.18	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%
Total 7542-00 - AIP 42 EXPENSE	182,923.18	213,102.18	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%

Friedman Memorial Airport FY 2020 Budget - Combined											
	FY '17		FY '18		FY '19				FY '20		Notes
	Oct '16 - Mar 17	Year End	Oct '17 - Mar '18	Year End	Oct '18 - Mar '19	Budget	Budget Remaining	% Remaining	Proposed Budget	% Change from Prev. Yr. Budget	
7543-00 - AIP '43 EXPENSE - Air Carr. Apr. Rehabilitate R/W 13/31 (maintenance), Acquire SRE (loader mounted snow blow and snow plow); Apron Expansion (north terminal) (Phase 2 - construction)											
7543-01 - AIP '43 - Parking Lot/Apron Construction	0.00	308,764.60	145,989.75	1,793,247.84	365,065.63	1,135,182.74	770,117.11	67.84%	0.00	-100.00%	
7543-02 - AIP '43- Non-Eligible - Parking Lot/Apron Const.	0.00	18,063.43	1,677.77	418,663.73	40,131.77	0.00	(40,131.77)	0.00%	0.00	0.00%	
7543-03 - AIP '43 - SRE Equipment	0.00	0.00	296,227.50	296,227.50	0.00	0.00	0.00	0.00%	0.00	0.00%	
7543-04 - AIP '43- RPZ Acq/Tree Removal	0.00	0.00	4,651.20	29,732.53	0.00	250,000.00	0.00	0.00%	0.00	-100.00%	
7543-05 - AIP '43 - Retainer -Eligible	0.00	(9,119.48)	(14,740.00)	(131,327.29)	56,430.25	0.00	(56,430.25)	0.00%	0.00	0.00%	
7543-06 - AIP '43 - Retainer -Non Eligible	0.00	(677.42)	0.00	(31,251.48)	15,525.80	0.00	(15,525.80)	0.00%	0.00	0.00%	
Total 7543-00 - AIP 43 EXPENSE	0.00	317,031.13	433,806.22	2,375,292.83	477,153.45	1,385,182.74	658,029.29	47.51%	0.00	-100.00%	
7544-00 - AIP '44 EXPENSE - RPZ EA											
7544-01 - AIP '44 - Eligible	0.00	74,378.20	22,165.20	21,664.80	6,040.40	0.00	(6,040.40)	0.00%	0.00	0.00%	Will be completed in FY '19
7544-02 - AIP '44 - Non Eligible	0.00	0.00	0.00	2,755.00	0.00	0.00	0.00	0.00%	0.00	0.00%	
Total 7544-00 - AIP 44 EXPENSE RPZ EA	0.00	74,378.20	22,165.20	24,419.80	6,040.40	0.00	(6,040.40)	0.00%	0.00	0.00%	
7545-00 - AIP '45 EXPENSE Conduct Environmental Study (RPZ)											
7545-01 - AIP '45 - TBD	27,894.00	78,655.00	0.00	164,771.23	537,100.98	1,590,000.00	1,052,899.02	66.22%	0.00	-100.00%	1,052,899.02 Entitlement 3,093,350.00 Discretionary
7545-02 - AIP '45 - (Non-Eligible)	0.00	0.00	0.00	5,175.00	0.00	0.00	0.00	0.00%	0.00	0.00%	
7545-03 - AIP '45 - Retainer	0.00	0.00	0.00	(16,477.12)	(18,595.74)	0.00	18,595.74	0.00%	0.00	0.00%	
7545-04 - AIP '45 - Non-Eligible Retainer	0.00	0.00	0.00	(517.50)	258.75	3,093,350.00	3,093,091.25	99.99%	0.00	-100.00%	
Total 7545-00 - AIP 45 EXPENSE	27,894.00	78,655.00	0.00	152,951.61	518,763.99	4,683,350.00	4,164,586.01	99.99%	0.00	-100.00%	
7546-00 - AIP '46 EXPENSE - SRE/ARFF Equip Acquire ARFF Vehicle (Phase 1 - design), Acquire SRE (high speed broom - Phase 1 - design), ARFF Protective Clothing (six sets of protective clothing and self-contained breathing apparatus)											
7546-01 - AIP '46 - Eligible	0.00	0.00	0.00	17,528.45	13,694.07	0.00	(13,694.07)	0.00%	0.00	0.00%	
Total 7546-00 - AIP '46 EXPENSE SRE/ARFF Equip	0.00	0.00	0.00	17,528.45	13,694.07	0.00	(13,694.07)	0.00%	0.00	0.00%	
7547-00 - AIP '47 EXPENSE - TBD											
7547-01 - AIP '47 - Eligible TBD - Acquire SRE Broom, Acquire ARFF Vehicle, ATC Design, Obstruction Removal (ph.2)	0.00	0.00	0.00	0.00	418,480.60	0.00	(418,480.60)	0.00%	1,990,450.00	100.00%	SRE (Oshkosh) Acquisition - \$560K Control Tower Design - \$600K ARFF Vehicle Acquisition - \$670K Obstruction Removal \$30,450 Perimeter Fence Relocation \$130K  GRANT TOTAL Received: \$1,259,144
Total 7547-00 - AIP '47 EXPENSE TBD	0.00	0.00	0.00	0.00	418,480.60	0.00	(418,480.60)	0.00%	1,990,450.00	100.00%	
7548-00 - AIP '48 EXPENSE 7548-01 - AIP '48 - Eligible TBD - SRE Acquisition, Pavement Rehab., Terminal Area Plan (TAP)											
Total 7548-00 - AIP '48 EXPENSE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	1,050,000.00	100.00%	SRE Combo Acquisition - \$800K Section 2 & 4 Pavement Rehab. \$150K Terminal Area Plan(TAP) \$100K
9001-00 - PFC '14											
9001-01 - PFC '14 RSA Formulation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	
9001-02 - PFC '14 Acquire SRE	416.25	416.25	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	PFC 14 Expenses Completed
9001-03 - PFC '14 Master Plan	39,962.64	48,593.39	3,337.10	3,337.10	0.00	0.00	0.00	0.00%	0.00	0.00%	
9001-04 - PFC '14 Relocate SW Taxilane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	
9001-05 - PFC '14 Relocate GA Apron	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	
9001-06 - PFC '14 Perimeter Fence Relocation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	
9001-07 - PFC '14 RSA Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	
9001-08 - PFC '14 Relocate Taxiway A & B	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	
9001-09 - PFC '14 Relocate Power to PAPI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	
9001-10 - PFC '14 Relocate AWOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	
9001-11 - PFC '14 Relocate SRE/ARFF Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	
9001-12 - PFC '14 Relocate Terminal Apron	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	

Friedman Memorial Airport FY 2020 Budget - Combined											
	FY '17		FY '18		FY '19				FY '20		Notes
	Oct '16 - Mar 17	Year End	Oct '17 - Mar '18	Year End	Oct '18 - Mar '19	Budget	Budget Remaining	% Remaining	Proposed Budget	% Change from Prev. Yr. Budget	
9001-13 - PFC '14 Relocate Cargo Apron	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	
9001-14 - PFC '14 Relocate Hangars	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	
9001-15 - PFC '14 Rehab Terminal Bldg.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	
9001-16 - PFC '14 Relocate N. Taxi lane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	
9001-17 - PFC '14 Relocate Central Bypass	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	
9001-18 - PFC '14 Runway Rehabilitation	4,137.18	4,137.18	0.00	0.00		0.00	0.00	0.00%	0.00	0.00%	
9001-19 - PFC '14 Administration	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	
9001-20 - PFC '14 RETAINER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00%	
Total 9001-00 - PFC '14	44,516.07	53,146.82	3,337.10	3,337.10	0.00	0.00	0.00	0.00%	0.00	0.00%	
TOTAL "C" EXPENDITURES	509,543.84	1,028,084.42	499,674.18	2,650,037.10	1,465,798.69	6,561,632.74	5,264,314.65	80.23%	3,411,950.00	-48.00%	
TOTAL EXPENSE ("A", "B" & "C")	1,928,581.05	3,593,369.37	2,303,682.68	6,267,281.95	3,408,669.12	10,374,670.70	7,134,482.18	68.77%	7,070,053.74	-31.85%	
TOTAL REVENUE	1,731,352.32	4,157,877.59	2,431,518.89	6,615,685.67	2,852,392.08	9,680,794.92	7,228,402.84	74.67%	7,333,341.88	-24.25%	
NET REVENUE	(197,228.73)	564,508.22	127,836.21	348,403.72	(556,277.04)	(693,875.78)	93,920.66	13.54%	263,288.13	-137.95%	
Cash Summary as of 03/31/19											
Estimated Beginning Cash Balances 3/31/19											
State Treasurer	\$1,372,195.69										
Checking Operational	552,432.83										
Flex Spending - Savings	14,958.61										
PFC Savings	128,904.61										
Savings -Terminal Auto Parking	237,477.69										
Petty Cash	200.00										
Restricted CD - BLM	6,050.20										
Total Cash Balance 03/31/19	\$2,312,219.63										
Adjustments											
Assets											
Accounts Interest/Receivable	\$527,099.29										
Prepaid Expenses	16,638.90										
Total Asset Adjustments	\$543,738.19										
Liabilities											
Accounts Payable	(\$203,407.19)										
Payroll Liabilities	3,773.01										
Tenant Deposits	(2,100.00)										
	(201,734.18)										
Estimated Ending Cash Balance 03/31/19	\$2,654,223.64										
FY '19 Budgeted Net Income/Loss	\$220,535.97										
FY '20 Budgeted Net Income/Loss	\$263,288.13										
09/30/20 Estimated Cash & Accrual Total:	\$3,138,047.74										

# NOTICE OF PUBLIC HEARING

Public notice is hereby given that the **Board of the Friedman Memorial Airport Authority** of Blaine County, Idaho, will meet on **August 6, 2019**, at the hour of **5:30 p.m.** in the **old Blaine County Courthouse Meeting Room** at Hailey, Idaho, for the purpose of considering and fixing a final budget for the Friedman Memorial Airport Authority and making appropriations for fiscal year 2019-2020, at which time any person may appear and be heard upon any parts of said budget and the following table sets forth the amounts to be appropriated for the coming fiscal year, together with amounts expended for "Salaries", "Benefits" and for "Detail of Other Expenses" during each of the two previous complete fiscal years. The proposed budget may be examined prior to the Public Hearing at [www.FLYSUN.COM](http://www.FLYSUN.COM) or the Airport Management Office, Friedman Memorial Airport, Hailey, Idaho.

  
Chris Pomeroy, Airport Manager

## FRIEDMAN MEMORIAL AIRPORT --PROPOSED BUDGET-- FOR FISCAL YEAR ENDED 09/30/20

GEN. FUND (CUR. EXP.)	ACTUAL EXPENDITURES				TENTATIVE BUDGET					
	FY ENDED 09/30/17		FY ENDED 09/30/18		FY ENDED 09/30/20			TOTAL TENTATIVE		
	SALARIES	BENEFITS	DETAIL OF OTHER EXPENSES	SALARIES	BENEFITS	DETAIL OF OTHER EXPENSES				
	1,028,941.48	368,997.47	2,182,056.05	1,092,709.15	433,350.10	4,741,222.70	1,222,405.39	519,768.79	5,319,375.00	7,061,549.18

Published:

Idaho Mtn. Express Legal:  
Idaho Mtn. Express Legal:

Wednesday, July 24, 2019  
Wednesday, July 31, 2019

**MINUTES OF A REGULAR MEETING  
OF THE  
FRIEDMAN MEMORIAL AIRPORT AUTHORITY\***  
July 2, 2019  
5:30 P.M.

**IN ATTENDANCE:** **BOARD MEMBERS:** Chairman – Jacob Greenberg, Ron Fairfax – Treasurer, Angenie McCleary – Secretary, Board - Fritz Haemmerle, Pat Cooley  
**FRIEDMAN MEMORIAL AIRPORT STAFF:** Airport Manager – Chris Pomeroy, Contracts/Finance Administrator – Lisa Emerick, Airport Operations Manager – Todd Emerick; Special Projects Coordinator/Executive Assistant – Steve Guthrie, Airport Administrative Coordinators – Sue Heaphy & Jenna Elliott  
**CONSULTANTS:** T-O Engineers –Dave Mitchell, Centerlyne – Candace Crew  
**FLY SUN VALLEY ALLIANCE:** Carol Waller  
**AIRPORT TENANTS/PUBLIC:** Atlantic Aviation – Brian Blackburn  
**PRESS:** Idaho Mountain Express – Alejandra Buitrago

**CALL TO ORDER:** The meeting was called to order at 5:35 p.m. by Chairman Greenberg.

**I. APPROVE AGENDA** The agenda was approved as presented.

**II. PUBLIC COMMENT** No public comment.

**III. APPROVE FMAA  
MEETING MINUTES**

A. June 4, 2019 Regular Meeting Minutes Attachment #1

**MOTION:** *Made by Board Member Haemmerle to approve the June 4, 2019 Regular Meeting Minutes. Seconded by Board Member McCleary.*

**PASSED UNANIMOUSLY**

**IV. REPORTS**

- A. Chairman Report  
Chairman Greenberg reported he attended the Fly Sun Valley Alliance Meeting last week. Some strategies discussed at the meeting were scheduling, future planning, airport capacity.
- B. Blaine County Report  
No report was given.
- C. City of Hailey Report  
No report was given.
- D. Fly Sun Valley Alliance Report  
Carol Waller, Sun Valley Alliance, reported they are starting the process of completing a five-year strategic plan. The plan will be a coordinated effort with Visit Sun Valley. Board Member McCleary asked for clarification regarding the scope of the give-year strategic plan. Carol responded that, at the present time, the scope is to determine the priorities moving forward.
- E. Airport Manager Report (see Power Point Presentation)
  - Airport Manager Pomeroy reported he attended the American Association of Airport Executives (AAAE) in Boston, MA on June 15-19, 2019. He participated in the airport professional mentor program. He stated he was able to meet with a representative from the Department of Transportation and discuss DOT Grants and other funding alternatives designed for smaller airports.

- Airport Manager Pomeroy reported he is planning to attend the NWAAAE Annual Northwest Chapter American Association of Airport Executives Annual Conference in Fairbanks, Alaska in September 2019.
- Airport Manager Pomeroy reported the FAA Part 139 Inspection performed by the FAA on June 5-7<sup>th</sup> went very well. SUN received an excellent report. Pomeroy thanked Todd Emerick, Operations Manager and his operations team for their efforts.
- Airport Manager Pomeroy reported the Annual Fly-in Event will be July 9-14, 2019. He is coordinating with FAA Salt Lake Center to make air traffic adjustments for this year's event.
- Airport Manager Pomeroy reported the morning air service departures schedule is going well. TSA has assisted with making some adjustments with the Pre-Check and this has improved the passenger flow thru the TSA checkpoint.
- Airport Manager Pomeroy reported the TSA Pre Check Enrollment Center held at SUN on June 20-24<sup>th</sup> was a big success. A total of 377 customers were processed far exceeding initial expectations. He thanked Steve Guthrie for coordinating with TSA and all the TSA staff who successfully processed all the scheduled appointments and the additional walk in customers.
- Airport Manager Pomeroy provided photos to the Board of the new airport entry sign. Installation is scheduled for the third week in July.
- Airport Manager Pomeroy reported he is working on the following:
  - The fiscal year 2020 budget.
  - The five-year On-Call Airport Planning Services Discussion/Selection
  - Approach presentation by Flight Tech Engineering
  - Virtual Tower presentation by Bill Payne

## V. AIRPORT STAFF BRIEF

- Noise Complaints in June
- Profit & Loss, ATCT Traffic Operations Count and Enplanement Data (See Attachment #2-#4)
- Airport Commercial Flight Interruptions (unofficial)
- Review Correspondence

## VI. ACTION ITEMS

- NEW BUSINESS (See Brief & Power Point)
  - Statements of Qualifications for 5-year Airport Engineering Services – Consideration of Selection.**  
 Airport Manager Pomeroy reported June 20, 2019, was the due date for the Statements of Qualifications (SOQ). FMA received one submittal from T-O Engineers. The Statement of Qualification was provided to the Board Selection Committee, Board Members Fairfax, Cooley and Fosbury for review. It was agreed that T-O Engineers should be selected to provide the five-year airport engineering services.

**MOTION:** *Made by Board Member Fairfax to approve the reselection of T-O Engineers as the five-year airport engineering service. Seconded by Board Member Haemmerle.*

**PASSED UNANIMOUSLY**

- CONTINUING BUSINESS
  - None

## VII. DISCUSSION AND UPDATES

- NEW BUSINESS
  - None

## B. CONTINUING BUSINESS

### 1. FY '20 Budget Second Draft Presentation – Attachment #5

Airport Manager Pomeroy reported the finance committee has made some minor revisions to draft budget as presented in June. He summarized the various changes from the first draft.

Board Member Haemmerle requested further explanation regarding rental car parking and parking lot space constraints. Pomeroy agreed that this issue needs to be reviewed. Pomeroy believes the best course of action is to work with outside consultant to do a terminal area study. This would include a comprehensive study of the terminal and the parking lot. The cost of this study is included in the 2020 budget.

### 2. FY '20 Rates and Charges Schedule – Attachment #6

Airport Manager Pomeroy reported there are no current proposed changes to the rates and charges schedule in this budget. However, he reminded the Board that the Rates and Charges Schedule can be revised by the Board at any time during the year.

### 3. Construction and Capital Projects

#### i. Air Carrier Apron and Parking Lot

Airport Manager Pomeroy reported the air carrier apron project is complete. The apron is providing additional air carrier space, is functioning very well, and there have been four aircraft parked there every morning with the new summer schedule. Completion of landscaping is expected by the end of next week.

#### ii. Obstruction Removal

Airport Manager Pomeroy reported Phase 1 of the RPZ tree removal has been completed and Phase 2 is scheduled in October 2019. Phase 2 will consist of stump and root removal when the irrigation is off to ensure the canal bank can be properly repaired.

Flight Tech Engineering will be documenting the tree removal for the purpose of updating the FAA Obstruction Database.

### 4. Airport Planning Projects

#### i. Instrument Approach Development

Airport Manager Pomeroy reported that Flight Tech Engineering will present Board with a full update at the August meeting.

### 5. Miscellaneous

#### i. none

## VIII. PUBLIC COMMENT

No public comment was made.

## IX. EXECUTIVE SESSION – I.C. §74-206 (1)(b), (1)(c), and (1)(f)

Executive Session was not held.

## X. ADJOURNMENT

The July 2, 2019 Regular Meeting of the Friedman Memorial Airport Authority was adjourned at approximately 6:04 p.m.

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Angenie McCleary, 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.

**MINUTES OF A SPECIAL MEETING ATTACHMENT 4  
OF THE  
FRIEDMAN MEMORIAL AIRPORT AUTHORITY\***

**July 17, 2019  
5:00 P.M.**

**IN ATTENDANCE:**

**BOARD MEMBERS:** Chairman – Jacob Greenberg, Vice-Chairman – Don Keirn, Ron Fairfax – Treasurer, Angenie McCleary – Secretary, Board - Pat Cooley and Dick Fosbury  
**FRIEDMAN MEMORIAL AIRPORT STAFF:** Airport Manager – Chris Pomeroy, Contracts/Finance Administrator – Lisa Emerick, Airport Operations Manager – Todd Emerick; Airport Administrative Coordinator – Jenna Elliott

**CALL TO ORDER:**

The meeting was called to order at 4:59 p.m. by Chairman Greenberg.

**I. APPROVE AGENDA**

The agenda was approved as presented.

**II. ACTION ITEMS**

**A. NEW BUSINESS**

**1. FAA/AIP Application for Federal Assistance and Sponsor Resolutions – ACTION ITEM**

Airport Manager Pomeroy reported that with the Airport Chairman's approval, he submitted a grant application to the Federal Aviation Administration on May 28, 2019 for Snow Removal Equipment (SRE) Broom, Control Tower/Airspace Planning/Siting Analysis, Acquisition of Aircraft Rescue Fire Fighting (ARFF) Equipment, RPZ/Approach Protection Land Acquisition, Removal of Tree Obstructions, and Relocation of Perimeter Fence on the South end of the airfield.

Airport Manager Pomeroy stated Steve Engebrecht, FAA ADO Project Manager, recently contacted Airport Staff and advised of the following:

1. A Grant Offer for Snow Removal Equipment, ARFF Equipment, and Obstruction Removal, has been extended to the City and County (airport co-sponsors).
2. An additional Grant Offer for RPZ Land Acquisition, is likely to be extended in mid-August.

Project Manager Steve Engebrecht requested quick approval of the proposed grant acceptance resolutions by the City and County due to FAA time constraints.

Airport Manager Pomeroy suggested the FMAA Board make a recommendation to the City and County to accept the first Grant Offer of \$1,259,144.00 for the Snow Removal Equipment, ARFF Equipment, and Obstruction Removal, and do the same for a possible second Grant Offer for RPZ Land Acquisition for approximately \$2.5 million anticipated in mid-August.

**MOTION:**

***Made by Board Member Ron Fairfax to Recommend Execution of the FAA Grant Offers by the City of Hailey and Blaine County as Airport Co-Sponsors and further direct staff and legal counsel to develop the appropriate city and county resolutions to support acceptance of the grant offers. Seconded by Board Member Cooley.***

**PASSED UNANIMOUSLY**



### III. ADJOURNMENT

The July 17, 2019 Special Meeting of the Friedman Memorial Airport Authority was adjourned at approximately 5:03 p.m.

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Jacob Greenberg, Chairman

\* *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 '19)

Ordinary Income/Expense	Oct '18 - May 19	Budget	\$ Over Budget	% of Budget
<b>Income</b>				
4000-00 · AIRCARRIER				
4000-01 · Aircarrier - Lease Space	147,084.09	233,332.00	-86,247.91	63.0%
4000-02 · Aircarrier - Landing Fees	122,036.15	111,000.00	11,036.15	109.9%
4000-03 · Aircarrier - Gate Fees	0.00	0.00	0.00	0.0%
4000-04 · Aircarrier - Utility Fees	240.00	22,500.00	-22,260.00	1.1%
4010-07 · Aircarrier - '14 PFC App	246,728.28	269,900.00	-23,171.72	91.4%
<b>Total 4000-00 · AIRCARRIER</b>	<b>516,088.52</b>	<b>636,732.00</b>	<b>-120,643.48</b>	<b>81.1%</b>
4020-00 · TERMINAL AUTO PARKING REVENUE				
4020-01 · Automobile Parking - Terminal	316,777.00	300,000.00	16,777.00	105.6%
<b>Total 4020-00 · TERMINAL AUTO PARKING REVENUE</b>	<b>316,777.00</b>	<b>300,000.00</b>	<b>16,777.00</b>	<b>105.6%</b>
4030-00 · AUTO RENTAL REVENUE				
4030-01 · Automobile Rental - Commission	321,203.24	375,000.00	-53,796.76	85.7%
4030-02 · Automobile Rental - Lease Space	18,862.08	18,763.36	98.72	100.5%
4030-03 · Automobile Rental - Auto Prkng	61,176.00	58,199.68	2,976.32	105.1%
4030-04 · Automobile Rental - Utilities	916.11	1,350.00	-433.89	67.9%
<b>Total 4030-00 · AUTO RENTAL REVENUE</b>	<b>402,157.43</b>	<b>453,313.04</b>	<b>-51,155.61</b>	<b>88.7%</b>
4040-00 · TERMINAL CONCESSION REVENUE				
4040-01 · Terminal Shops - Commission	6,292.38	3,333.36	2,959.02	188.8%
4040-02 · Terminal Shops - Lease Space	0.00	0.00	0.00	0.0%
4040-03 · Terminal Shops - Utility Fees	961.12	1,125.00	-163.88	85.4%
4040-10 · Advertising - Commission	26,951.90	32,000.00	-5,048.10	84.2%
4040-11 · Vending Machines - Commission	8,066.95	11,000.00	-2,933.05	73.3%
4040-12 · Terminal ATM	750.00	600.00	150.00	125.0%
<b>Total 4040-00 · TERMINAL CONCESSION REVENUE</b>	<b>43,022.35</b>	<b>48,058.36</b>	<b>-5,036.01</b>	<b>89.5%</b>
4050-00 · FBO REVENUE				
4050-01 · FBO - Lease Space	118,433.37	118,395.00	38.37	100.0%
4050-02 · FBO - Tiedown Fees	129,087.00	144,000.00	-14,913.00	89.6%
4050-03 · FBO - Landing Fees - Trans.	180,257.65	205,000.00	-24,742.35	87.9%
4050-04 · FBO - Commission	17,910.70	16,500.00	1,410.70	108.5%
4050-07 · FBO - Miscellaneous	0.00	0.00	0.00	0.0%
<b>Total 4050-00 · FBO REVENUE</b>	<b>445,688.72</b>	<b>483,895.00</b>	<b>-38,206.28</b>	<b>92.1%</b>
4060-00 · FUEL FLOWAGE REVENUE				
4060-01 · Fuel Flowage - FBO	189,159.72	180,000.00	9,159.72	105.1%
<b>Total 4060-00 · FUEL FLOWAGE REVENUE</b>	<b>189,159.72</b>	<b>180,000.00</b>	<b>9,159.72</b>	<b>105.1%</b>
4070-00 · TRANSIENT LANDING FEES REVENUE				
4070-02 · Landing Fees - Non-Comm./Gov't	218.82	0.00	218.82	100%
<b>Total 4070-00 · TRANSIENT LANDING FEES REVENUE</b>	<b>218.82</b>	<b>0.00</b>	<b>218.82</b>	<b>100.0%</b>

ATTACHMENT 5

# Friedman Memorial Airport

## Profit & Loss Budget vs. Actual (COMBINED '19)

	Oct '18 - May 19	Budget	\$ Over Budget	% of Budget
<b>4080-00 · HANGAR REVENUE</b>				
4080-01 · Land Lease - Hangar	446,276.38	455,512.50	-9,236.12	98.0%
4080-02 · Land Lease - Hangar/Trans. Fee	13,460.00	0.00	13,460.00	100.0%
4080-03 · Hangar/Utilities (E8,11,24)	0.00	1,350.00	-1,350.00	0.0%
4080-05 · Land Lease - FMA Hangar Rentals	25,210.46	26,250.00	-1,039.54	96.0%
<b>Total 4080-00 · HANGAR REVENUE</b>	<b>484,946.84</b>	<b>483,112.50</b>	<b>1,834.34</b>	<b>100.4%</b>
<b>4090-00 · TIEDOWN PERMIT FEES REVENUE</b>				
4090-01 · Tiedown Permit Fees (FMA)	12,260.34	10,000.00	2,260.34	122.6%
<b>Total 4090-00 · TIEDOWN PERMIT FEES REVENUE</b>	<b>12,260.34</b>	<b>10,000.00</b>	<b>2,260.34</b>	<b>122.6%</b>
<b>4100-00 · CARGO CARRIERS REVENUE</b>				
4100-01 · Cargo Carriers - Landing Fees	7,434.49	6,600.00	834.49	112.6%
4100-02 · Cargo Carriers - Tiedown	2,970.00	3,000.00	-30.00	99.0%
<b>Total 4100-00 · CARGO CARRIERS REVENUE</b>	<b>10,404.49</b>	<b>9,600.00</b>	<b>804.49</b>	<b>108.4%</b>
<b>4110-00 · MISCELLANEOUS REVENUE</b>				
4110-01 · Misc. Revenue	112.36	0.00	112.36	100.0%
4110-05 · Misc. Incident/Accident	-1,147.90	0.00	-1,147.90	100.0%
4110-09 · Miscellaneous Expense Reimburse	8.75	0.00	8.75	100.0%
<b>Total 4110-00 · MISCELLANEOUS REVENUE</b>	<b>-1,026.79</b>	<b>0.00</b>	<b>-1,026.79</b>	<b>100.0%</b>
<b>4120-00 · GROUND TRANSP. PERMIT REVENUE</b>				
4120-01 · Ground Transportation Permit	19,000.00	19,000.00	0.00	100.0%
4120-02 · GTSP - Trip Fee	3,420.00	3,333.36	86.64	102.6%
<b>Total 4120-00 · GROUND TRANSP. PERMIT REVENUE</b>	<b>22,420.00</b>	<b>22,333.36</b>	<b>86.64</b>	<b>100.4%</b>
<b>4400-00 · TSA/SECURITY</b>				
4400-02 · Terminal Lease	26,910.00	26,920.00	-10.00	100.0%
4400-03 · Security Prox. Cards	28,570.00	25,500.00	3,070.00	112.0%
<b>Total 4400-00 · TSA/SECURITY</b>	<b>55,480.00</b>	<b>52,420.00</b>	<b>3,060.00</b>	<b>105.8%</b>
<b>4500-00 · IDAHO STATE GRANT PROGRAM REV.</b>				
4500-18 · SUN-18 SKW E-175 Certification	25,000.00	25,000.00	0.00	100.0%
<b>Total 4500-00 · IDAHO STATE GRANT PROGRAM REV.</b>	<b>25,000.00</b>	<b>25,000.00</b>	<b>0.00</b>	<b>100.0%</b>
<b>4510-00 · DOT/Small Community Air Service</b>				
4510-01 · Small Community Air Service	0.00	369,700.00	-369,700.00	0.0%
4510-02 · Local Match Contribution	0.00	0.00	0.00	0.0%
<b>Total 4510-00 · DOT/Small Community Air Service</b>	<b>0.00</b>	<b>369,700.00</b>	<b>-369,700.00</b>	<b>0.0%</b>
<b>4520-00 · INTEREST REVENUE</b>				
4520-01 · Interest Revenue - General	36,656.84	0.00	36,656.84	100.0%
4520-07 · Interest Revenue - '14 PFC	73.17	33.36	39.81	219.3%
<b>Total 4520-00 · INTEREST REVENUE</b>	<b>36,730.01</b>	<b>33.36</b>	<b>36,696.65</b>	<b>110,101.9%</b>

# Friedman Memorial Airport

## Profit & Loss Budget vs. Actual (COMBINED '19)

	Oct '18 - May 19	Budget	\$ Over Budget	% of Budget
4742-00 - AIP 42 - Project Air Carr. Apr				
4742-01 - AIP '42 Air Carr. Apron	25,566.99	0.00	25,566.99	100.0%
Total 4742-00 - AIP 42 - Project Air Carr. Apr	25,566.99	0.00	25,566.99	100.0%
4743-00 - AIP 43 - Air Carrier /Pkg. Lot				
4743-01 - AIP 43 - Air Carrier/Pkg. Lot	330,959.26	0.00	330,959.26	100.0%
Total 4743-00 - AIP 43 - Air Carrier /Pkg. Lot	330,959.26	0.00	330,959.26	100.0%
4744-00 - AIP '44 RPZ Acquisition EA				
4744-01 - AIP '44 - RPZ Acquisition - EA	2,866.78	0.00	2,866.78	100.0%
4744-00 - AIP '44 RPZ Acquisition EA - Other	0.00	0.00	0.00	0.0%
Total 4744-00 - AIP '44 RPZ Acquisition EA	2,866.78	0.00	2,866.78	100.0%
4745-00 - AIP '45 Terminal Apron Expan				
4745-01 - AIP '45 Terminal Apron Expan	503,143.10	0.00	503,143.10	100.0%
Total 4745-00 - AIP '45 Terminal Apron Expan	503,143.10	0.00	503,143.10	100.0%
4746-00 - AIP '46 Acquire SRE ARFF				
4746-01 - AIP '46 Acquire SRE ARFF	12,838.14	0.00	12,838.14	100.0%
4746-00 - AIP '46 Acquire SRE ARFF - Other	0.00	0.00	0.00	0.0%
Total 4746-00 - AIP '46 Acquire SRE ARFF	12,838.14	0.00	12,838.14	100.0%
Total Income	3,434,701.72	3,074,197.62	360,504.10	111.7%
Gross Profit	3,434,701.72	3,074,197.62	360,504.10	111.7%
Expense				
EXPENDITURES				
"A" EXPENSES				
5000-01 - Salaries - Airport Manager	102,266.50	98,914.52	3,351.98	103.4%
5000-02 - Salaries - Assist. Airpt. Manag	0.00	0.00	0.00	0.0%
5010-00 - Salaries -Contracts/Finance Adm	96,620.67	70,945.68	25,674.99	136.2%
5010-01 - Salaries - Office Assist.	131,837.97	139,615.28	-7,777.31	94.4%
5010-02 - Salaries - Public Info Officer	0.00	23,333.36	-23,333.36	0.0%
5020-00 - Salaries - ARFF/OPS Manager	76,247.37	68,682.00	7,565.37	111.0%
5030-00 - Salaries - ARFF/OPS Specialist	298,634.09	281,650.36	16,983.73	106.0%
5040-00 - Salaries-ASC/Sp.Prjct./Ex. Assi	57,633.01	52,839.35	4,793.66	109.1%
5050-00 - Salaries-Seasonal-Snow Removal	20,268.00	40,000.00	-19,732.00	50.7%
5050-01 - Salaries - Seasonal - Arpt Host	3,814.00	3,500.00	314.00	109.0%
5050-02 - Salaries - Merit Increase	0.00	43,027.94	-43,027.94	0.0%
5060-01 - Overtime - General	0.00	1,000.00	-1,000.00	0.0%
5060-02 - Overtime - Snow Removal	58,852.68	20,000.00	38,852.68	294.3%
5060-04 - OT - Security	0.00	0.00	0.00	0.0%
5070-05 - Compensated Absences Accrued	0.00	29,500.00	-29,500.00	0.0%
5100-00 - Retirement	94,517.36	106,532.36	-12,015.00	88.7%
5110-00 - Social Security/Medicare	61,379.92	72,150.00	-10,770.08	85.1%
5120-00 - Life Insurance	1,002.15	1,333.36	-331.21	75.2%
5130-00 - Medical Insurance	116,268.40	147,000.00	-30,731.60	79.1%

# Friedman Memorial Airport

## Profit & Loss Budget vs. Actual (COMBINED '19)

	Oct '18 - May 19	Budget	\$ Over Budget	% of Budget
5160-00 · Workman's Compensation	17,010.00	10,664.00	6,346.00	159.5%
5170-00 · Unemployment Claims	961.88	0.00	961.88	100.0%
<b>Total "A" EXPENSES</b>	1,137,314.00	1,210,688.21	-73,374.21	93.9%
<b>"B" EXPENDITURES</b>				
<b>"B" EXPENSES - ADMINISTRATIVE</b>				
6000-00 · TRAVEL EXPENSE				
6000-01 · Travel	18,213.52	16,450.00	1,763.52	110.7%
<b>Total 6000-00 · TRAVEL EXPENSE</b>	18,213.52	16,450.00	1,763.52	110.7%
6010-00 · SUPPLIES/EQUIPMENT EXPENSE				
6010-01 · Supplies - Office	6,676.81	7,332.00	-655.19	91.1%
6010-03 · Supplies - Computer	9,930.74	8,664.00	1,266.74	114.6%
6010-00 · SUPPLIES/EQUIPMENT EXPENSE - Other	182.00			
<b>Total 6010-00 · SUPPLIES/EQUIPMENT EXPENSE</b>	16,789.55	15,996.00	793.55	105.0%
6020-00 · INSURANCE				
6020-01 · Insurance -	50,692.00	50,692.00	0.00	100.0%
<b>Total 6020-00 · INSURANCE</b>	50,692.00	50,692.00	0.00	100.0%
6030-00 · UTILITIES				
6030-01 · Utilities - Gas/Terminal	9,400.01	13,332.00	-3,931.99	70.5%
6030-02 · Utilities - Gas/AOB & Cold Stor	3,208.00	6,332.00	-3,124.00	50.7%
6030-03 · Utilities - Elect./Runway&PAPI	4,247.34	5,465.00	-1,217.66	77.7%
6030-04 · Utilities - Elec./AOB & Cold St	5,269.34	6,332.00	-1,062.66	83.2%
6030-05 · Utilities - Electric/Terminal	41,979.72	30,500.00	11,479.72	137.6%
6030-06 · Utilities - Telephone	11,949.26	10,664.00	1,285.26	112.1%
6030-07 · Utilities - Water	1,632.20	10,664.00	-9,031.80	15.3%
6030-08 · Utilities - Garbage Removal	9,425.76	6,664.00	2,761.76	141.4%
6030-09 · Utilities - Sewer	2,740.72	2,664.00	76.72	102.9%
6030-11 · Utilities - Electric/Tower	4,209.60	4,200.00	9.60	100.2%
6030-12 · Utilities - Elec./Brdfrd.Hghi	310.20	332.00	-21.80	93.4%
6030-13 · Utilities - Elec. Exit Booth	1,929.78	2,264.00	-524.45	123.2%
6030-15 · Utilities - Elec/AWOS	2,788.45	100.00	-20.18	79.8%
6030-16 · Utilities - Elec. Wind Cone	79.82	3,064.00	-540.44	82.4%
6030-17 · Utilities - Elec./Gas- Hangar	2,523.56	333.32	-333.32	0.0%
6030-18 · Utilities - Lubricant Wst. Dspl	0.00			
6030-00 · UTILITIES - Other	0.00			
<b>Total 6030-00 · UTILITIES</b>	101,693.76	102,910.32	-1,216.56	98.8%
6040-00 · SERVICE PROVIDER				
6040-02 · Service Provider - Term. Serv.	2,348.03	4,600.00	-2,251.97	51.0%
6040-03 · Service Provider - AOB Services	38,211.55	28,864.00	9,347.55	132.4%
6040-04 · Service Provider - Operations	13,350.00	10,898.00	2,452.00	122.5%
<b>Total 6040-00 · SERVICE PROVIDER</b>	53,909.58	44,362.00	9,547.58	121.5%

# Friedman Memorial Airport

## Profit & Loss Budget vs. Actual (COMBINED '19)

	Oct '18 - May '19	Budget	\$ Over Budget	% of Budget
<b>6050-00 · PROFESSIONAL SERVICES</b>				
6050-01 · Professional Services - Legal	27,055.80	33,332.00	-6,276.20	81.2%
6050-02 · Professional Serv. - Audit/Fina	40,446.05	50,000.00	-9,553.95	80.9%
6050-03 · Professional Services - Engineer	10,845.75	10,000.00	845.75	108.5%
6050-05 · Professional Services - Gen.	16,577.80	6,664.00	9,913.80	248.8%
6050-10 · Prof. Svcs.-IT/Comp. Support	14,339.50	10,000.00	4,339.50	143.4%
6050-12 · Prof. Serv.- Planning Air Serv.	1,691.25	0.00	1,691.25	100.0%
6050-13 · Prof. Serv.-Website Des. & Maint	1,365.00	2,665.00	-1,300.00	51.2%
6050-15 · Prof. Serv.-Comm. Coord/Pub.Outr	1,075.00	31,332.00	-30,257.00	3.4%
6050-17 · Prof. Serv. - Airspace Consult.	11,878.60	0.00	11,878.60	100.0%
6050-19 · Prof. Serv.-ATCT Relocation	11,121.39			
<b>Total 6050-00 · PROFESSIONAL SERVICES</b>	<b>136,396.14</b>	<b>143,993.00</b>	<b>-7,596.86</b>	<b>94.7%</b>
<b>6060-00 · MAINTENANCE-OFFICE EQUIPMENT</b>				
6060-04 · Maintenance - Copier	1,083.08	1,664.00	-580.92	65.1%
6060-05 · Maintenance - Phone	1,215.00	832.00	383.00	146.0%
<b>Total 6060-00 · MAINTENANCE-OFFICE EQUIPMENT</b>	<b>2,298.08</b>	<b>2,496.00</b>	<b>-197.92</b>	<b>92.1%</b>
<b>6070-00 · RENT/LEASE OFFICE EQUIPMENT</b>				
6070-02 · Rent/Lease - Postage Meter	1,097.58	1,200.00	-102.42	91.5%
<b>Total 6070-00 · RENT/LEASE OFFICE EQUIPMENT</b>	<b>1,097.58</b>	<b>1,200.00</b>	<b>-102.42</b>	<b>91.5%</b>
<b>6080-00 · DUES/MEMBERSHIPS/PUBLICATIONS E</b>				
6080-01 · Dues/Memberships	5,776.14	4,000.00	1,776.14	144.4%
6080-04 · Publications	2,365.01	3,332.00	-966.99	71.0%
<b>Total 6080-00 · DUES/MEMBERSHIPS/PUBLICATIONS E</b>	<b>8,141.15</b>	<b>7,332.00</b>	<b>809.15</b>	<b>111.0%</b>
<b>6090-00 · POSTAGE</b>				
6090-01 · Postage/Courier Service	915.22	1,332.00	-416.78	68.7%
<b>Total 6090-00 · POSTAGE</b>	<b>915.22</b>	<b>1,332.00</b>	<b>-416.78</b>	<b>68.7%</b>
<b>6100-00 · EDUCATION/TRAINING</b>				
6100-01 · Education/Training - Admin.	0.00	10,000.00	-10,000.00	0.0%
6100-02 · Education/Training - OPS	6,541.98	6,664.00	-122.02	98.2%
6100-03 · Education/Training - ARFF	17,030.55	0.00	17,030.55	100.0%
6100-05 · Education - Noise Abatement	0.00	0.00	0.00	0.0%
6100-06 · Education - Security	2,612.32	3,332.00	-719.68	78.4%
6100-07 · ZzzEducation - Public Outrea/C	0.00	0.00	0.00	0.0%
6100-08 · Education/Training - HFD Coop.	0.00	5,000.00	-5,000.00	0.0%
6100-00 · EDUCATION/TRAINING - Other	0.00			0.0%
<b>Total 6100-00 · EDUCATION/TRAINING</b>	<b>26,184.85</b>	<b>24,996.00</b>	<b>1,188.85</b>	<b>104.8%</b>

# Friedman Memorial Airport

## Profit & Loss Budget vs. Actual (COMBINED '19)

	Oct '18 - May '19	Budget	\$ Over Budget	% of Budget
<b>6101-00 · PUBLIC OUTREACH/COMMUNICATIONS</b>				
6101-01 · Public Outr/Comm - General	19,885.84	22,000.00	-2,114.16	90.4%
6101-02 · Public Outr/Comm - Noise Abatem	0.00	375.00	-375.00	0.0%
6101-03 · Public Outr/Comm - SAAC	6,226.65	7,000.00	-773.35	89.0%
<b>Total 6101-00 · PUBLIC OUTREACH/COMMUNICATIONS</b>	<b>26,112.49</b>	<b>29,375.00</b>	<b>-3,262.51</b>	<b>88.9%</b>
<b>6110-00 · CONTRACTS</b>				
6110-01 · Contracts - General	0.00	1,000.00	-1,000.00	0.0%
6110-02 · Contracts - FMAA	28,000.00	28,000.00	0.00	100.0%
6110-03 · Contracts - FBO/Fee Collection	39,200.00	39,264.00	-64.00	99.8%
6110-08 · Contracts - Eccles Tree Lights	7,500.00			
6110-16 · Contracts - Prkg Mngt Fee/Ops	227,751.71	120,000.00	107,751.71	189.8%
<b>Total 6110-00 · CONTRACTS</b>	<b>302,451.71</b>	<b>188,264.00</b>	<b>114,187.71</b>	<b>160.7%</b>
<b>6130-00 · MISCELLANEOUS EXPENSES</b>				
6130-01 · Misc. - General	12,361.65	10,000.00	2,361.65	123.6%
6140-00 · Bank Fees	11,067.45	1,000.00	10,067.45	1,106.7%
6150-01 · Interest Exp. - Prkg. Lot Equip	4,712.80	4,400.00	312.80	107.1%
<b>Total 6130-00 · MISCELLANEOUS EXPENSES</b>	<b>28,141.90</b>	<b>15,400.00</b>	<b>12,741.90</b>	<b>182.7%</b>
<b>6400-00 · DOT/SCASGP</b>				
6400-01 · DOT/SCASGP	0.00	365,000.00	-365,000.00	0.0%
<b>Total 6400-00 · DOT/SCASGP</b>	<b>0.00</b>	<b>365,000.00</b>	<b>-365,000.00</b>	<b>0.0%</b>
<b>Total "B" EXPENSES - ADMINISTRATIVE</b>	<b>773,037.53</b>	<b>1,009,798.32</b>	<b>-236,760.79</b>	<b>76.6%</b>
<b>"B" EXPENSES - OPERATIONAL</b>				
<b>6500-00 · SUPPLIES/EQUIPMENT-OPERATIONS</b>				
6500-01 · Supplies/Equipment - General	5,405.89	3,332.00	2,073.89	162.2%
6500-02 · Supplies/Equipment - Tools	3,721.40	3,332.00	389.40	111.7%
6500-03 · Supplies/Equipment - Clothing	2,358.78	3,332.00	-973.22	70.8%
6500-04 · Supplies/Equipment - Janitorial	13,159.29	13,332.00	-172.71	98.7%
<b>Total 6500-00 · SUPPLIES/EQUIPMENT-OPERATIONS</b>	<b>24,645.36</b>	<b>23,328.00</b>	<b>1,317.36</b>	<b>105.6%</b>
<b>6505-00 · EQUIP/VEHICLE - LEASE/RENTAL</b>				
6505-01 · Eq./Vehi Lease/Rental - General	48,559.84	50,000.00	-1,440.16	97.1%
<b>Total 6505-00 · EQUIP/VEHICLE - LEASE/RENTAL</b>	<b>48,559.84</b>	<b>50,000.00</b>	<b>-1,440.16</b>	<b>97.1%</b>
<b>6510-00 · FUEL/LUBRICANTS</b>				
6510-01 · General	0.00	1,332.00	-1,332.00	0.0%
6510-02 · Fuel	36,651.98	30,000.00	6,651.98	122.2%
6510-03 · Lubricants	1,374.90	3,332.00	-1,957.10	41.3%
<b>Total 6510-00 · FUEL/LUBRICANTS</b>	<b>38,026.88</b>	<b>34,664.00</b>	<b>3,362.88</b>	<b>109.7%</b>



# Friedman Memorial Airport

## Profit & Loss Budget vs. Actual (COMBINED '19)

	Oct '18 - May 19	Budget	\$ Over Budget	% of Budget
<b>6520-00 · VEHICLES/MAINTENANCE</b>				
6520-01 · R/M Equipment - General	3,295.27	8,000.00	-4,704.73	41.2%
6520-06 · R/M Equip. - '85 Ford Dump	58.63	500.00	-441.37	11.7%
6520-08 · R/M Equip. - '96 Tiger Tractor	834.59	2,750.00	-1,915.41	30.3%
6520-09 · R/M Equip. - '96 Oshkosh Swp.	1,375.83	9,725.00	-8,349.17	14.1%
6520-17 · R/M Equip. '01 Case 921 Ldr.	555.18	2,200.00	-1,644.82	25.2%
6520-18 · R/M Equip. - '97 Chevy Blazer	0.00	2,000.00	-2,000.00	0.0%
6520-19 · R/M Equip. '02 Ford F-150 PU	695.32	1,150.00	-454.68	60.5%
6520-25 · R/M Equip. - '04 Batts De-Ice	4,416.93	900.00	3,516.93	490.8%
6520-28 · R/M Equip. - '06 Case 621 Loader	0.00	1,000.00	-1,000.00	0.0%
6520-29 · R/M Equip. - '10 Waus Broom/Plow	9,222.73	1,975.00	7,247.73	467.0%
6520-30 · R/M Equip. - '05 Ford F-350	12,073.72	14,000.00	-1,926.28	86.2%
6520-31 · R/M Equip. - '10 Oshkosh Blower	1,559.18	1,675.00	-115.82	93.1%
6520-32 · R/M Equip. - '09 Mini Truck	1,280.29	3,100.00	-1,819.71	41.3%
6520-34 · R/M Equip. - '12 Case 921F Load	163.97	200.00	-36.03	82.0%
6520-35 · R/M Equip. - '14 Ford Explorer	2,286.67	2,350.00	-63.33	97.3%
6520-36 · R/M Equip. - '10 Toyota Forklift	1,053.73	600.00	453.73	175.6%
6520-37 · R/M Equip. - '15 Tool Cat	0.00	350.00	-350.00	0.0%
6520-38 · R/M Equip. - '15 Wausau Broom	3,059.06	825.00	2,234.06	370.8%
6520-39 · R/M Equip. - Boss Spreader	19,328.09	13,050.00	6,278.09	148.1%
6520-40 · R/M Equip. - '17 Ford-350 Super	0.00	0.00	0.00	0.0%
6520-41 · R/M Equip. - '17 Kodiak Blower	4,675.58	450.00	4,225.58	1,039.0%
6520-42 · R/M Equip. - '18 Kodiak Attach.	239.23	0.00	239.23	100.0%
6520-43 · R/M Equip. - '18 279D Skid St.	4.00	450.00	-446.00	0.9%
6520-44 · R/M Equip. - '18 972M Loader	268.57	0.00	268.57	100.0%
6520-00 · VEHICLES/MAINTENANCE - Other	588.85	0.00	588.85	100.0%
<b>Total 6520-00 · VEHICLES/MAINTENANCE</b>	<b>67,091.34</b>	<b>67,250.00</b>	<b>-158.66</b>	<b>99.8%</b>
<b>6530-00 · ARFF MAINTENANCE</b>				
6530-01 · ARFF Maint. Gen/Supplies	1,817.55	8,664.00	-6,846.45	21.0%
6530-03 · ARFF Maint. - '87 Oshkosh	0.00	1,332.00	-1,332.00	0.0%
6530-04 · ARFF Maint. - Radios	0.00	4,664.00	-4,664.00	0.0%
6530-05 · ARFF MAInt. - '03 E-One	2,968.70	1,332.00	1,636.70	222.9%
6530-07 · ARFF Maint. - Supp/HFD Support	0.00	0.00	0.00	0.0%
<b>Total 6530-00 · ARFF MAINTENANCE</b>	<b>4,786.25</b>	<b>15,992.00</b>	<b>-11,205.75</b>	<b>29.9%</b>
<b>6540-00 · REPAIRS/MAINTENANCE - BUILDING</b>				
6540-01 · R/M Bldg. - General	509.00	1,664.00	-1,155.00	30.6%
6540-02 · R/M Bldg. - Terminal	44,299.69	80,000.00	-35,700.31	55.4%
6540-03 · R/M Bldg. - Terminal Concession	766.01	1,664.00	-897.99	46.0%
6540-04 · R/M Bldg. - Cold Storage	318.50	3,332.00	-3,013.50	9.6%
6540-05 · R/M Bldg. - AOB/SHOP	6,817.75	13,332.00	-6,514.25	51.1%
6540-06 · R/M Bldg. - Hangars	439.27	1,664.00	-1,224.73	26.4%
6540-07 · R/M Bldg. - Tower	5,556.35	2,332.00	3,224.35	238.3%
6540-08 · R/M Bldg. - Parking Booth	747.24	966.00	-218.76	77.4%
<b>Total 6540-00 · REPAIRS/MAINTENANCE - BUILDING</b>	<b>59,453.81</b>	<b>104,954.00</b>	<b>-45,500.19</b>	<b>56.6%</b>



# Friedman Memorial Airport

## Profit & Loss Budget vs. Actual (COMBINED '19)

	Oct '18 - May 19	Budget	\$ Over Budget	% of Budget
<b>6550-00 · REPAIRS/MAINTENANCE - AIRSIDE</b>				
6550-01 · R/M - General	2,088.92	3,332.00	-1,243.08	62.7%
6550-02 · R/M - Airfield/Runway	157,584.20	66,664.00	90,920.20	236.4%
6550-04 · R/M - Lights	14,910.40	8,000.00	6,910.40	186.4%
<b>Total 6550-00 · REPAIRS/MAINTENANCE - AIRSIDE</b>	<b>174,583.52</b>	<b>77,996.00</b>	<b>96,587.52</b>	<b>223.8%</b>
<b>6551-00 · REPAIRS/MAINTENANCE - LANDSIDE</b>				
6551-01 · RM - General	0.00	1,664.00	-1,664.00	0.0%
6551-02 · R/M - Parking Lot	3,802.74	5,332.00	-1,529.26	71.3%
6551-03 · R/M - Landscaping	8,427.28	6,664.00	1,763.28	126.5%
<b>Total 6551-00 · REPAIRS/MAINTENANCE - LANDSIDE</b>	<b>12,230.02</b>	<b>13,660.00</b>	<b>-1,429.98</b>	<b>89.5%</b>
<b>6560-00 · SECURITY EXPENSE</b>				
6560-01 · Security - General	4,656.54	6,332.00	-1,675.46	73.5%
6560-02 · Security - Law Enf. Offi. (LEO)	2,176.00	2,664.00	-488.00	81.7%
6560-03 · Security - Subscription Licen.	47,412.00	40,915.00	6,497.00	115.9%
6560-04 · Security - Perim./Access/CCTV	14,925.58	21,064.00	-6,138.42	70.9%
6560-05 · Security - Professional Serv.	3,905.00	10,000.00	-6,095.00	39.1%
6560-06 · Security - Prof. Services/IT	4,427.25	5,000.00	-572.75	88.5%
<b>Total 6560-00 · SECURITY EXPENSE</b>	<b>77,502.37</b>	<b>85,975.00</b>	<b>-8,472.63</b>	<b>90.1%</b>
<b>6570-00 · REPAIRS/MAINT.-AERONAUTICAL EQU</b>				
6570-01 · R/M Aeronautical Equip - NDB/DME	4,118.40	7,750.00	-3,631.60	53.1%
6570-02 · R/M Aeronautical Equip. - Tower	2,059.20	6,250.00	-4,190.80	32.9%
6570-03 · R/M Aeronautical Equip.-Swt. Sys	0.00	7,750.00	-7,750.00	0.0%
6570-04 · R/M Aeron. Equip. - AWOS/ATIS	4,118.40	0.00	4,118.40	100.0%
<b>Total 6570-00 · REPAIRS/MAINT.-AERONAUTICAL EQU</b>	<b>10,296.00</b>	<b>21,750.00</b>	<b>-11,454.00</b>	<b>47.3%</b>
<b>Total "B" EXPENSES - OPERATIONAL</b>	<b>517,175.39</b>	<b>495,569.00</b>	<b>21,606.39</b>	<b>104.4%</b>
<b>Total "B" EXPENDITURES</b>	<b>1,290,212.92</b>	<b>1,505,367.32</b>	<b>-215,154.40</b>	<b>85.7%</b>
<b>"C" EXPENSES</b>				
<b>7001-00 · CAPITAL EXPENDITURES</b>				
7001-0* · CONTINGENCY	0.00	13,332.00	-13,332.00	0.0%
7001-01 · Land	0.00	0.00	0.00	0.0%
7001-02 · Buildings and Improvements	30,667.14	0.00	30,667.14	100.0%
7001-03 · Airfield & General Improvements	0.00	0.00	0.00	0.0%
7001-04 · Office Equipment	6,218.00	6,700.00	-482.00	92.8%
7001-05 · Maintenance Equipment /Vehicle	0.00	25,000.00	-25,000.00	0.0%
7001-06 · Assessments/Plans/Studies	2,577.32	55,000.00	-52,422.68	4.7%
7001-09 · Security Equipment	0.00	0.00	0.00	0.0%
<b>Total 7001-00 · CAPITAL EXPENDITURES</b>	<b>39,462.46</b>	<b>100,032.00</b>	<b>-60,569.54</b>	<b>39.4%</b>

# Friedman Memorial Airport

## Profit & Loss Budget vs. Actual (COMBINED '19)

	Oct '18 - May 19	Budget	\$ Over Budget	% of Budget
7110-00 · DOT/SCADGP				
7110-01 · DOT/SCASGP	0.00	0.00	0.00	0.0%
7110-02 · DOT/SCASGP - FMAA	0.00	0.00	0.00	0.0%
Total 7110-00 · DOT/SCADGP	0.00	0.00	0.00	0.0%
7500-00 · IDAHO STATE GRANT PROGRAM				
7500-18 · '18 ITD Grant (SUN-17 ITD/FMA)	0.00	0.00	0.00	0.0%
Total 7500-00 · IDAHO STATE GRANT PROGRAM	0.00	0.00	0.00	0.0%
7541-00 · AIP 41 SA Ph. III -Runway/Term.				
7541-01 · AIP '41	0.00	0.00	0.00	0.0%
7541-02 · AIP '41 - Non-Eligible	0.00	0.00	0.00	0.0%
7541-05 · Non-Eligible - TSA	0.00	0.00	0.00	0.0%
7541-06 · Non-Eligible - Terminal	0.00	0.00	0.00	0.0%
7541-07 · AIP '41 RETAINER	0.00	0.00	0.00	0.0%
7541-08 · AIP '41 RETAINER PFC	0.00	0.00	0.00	0.0%
7541-09 · AIP '41 Non-Elig Retainer	0.00	0.00	0.00	0.0%
Total 7541-00 · AIP 41 SA Ph. III -Runway/Term.	0.00	0.00	0.00	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%
7542-03 · AIP 42 - Land Aquisition	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	365,065.63	1,135,182.74	-770,117.11	32.2%
7543-02 · AIP '43 - Parking - Non-Eligibl	40,769.27	0.00	40,769.27	100.0%
7543-03 · AIP '43 - SRE Equipment	0.00	0.00	0.00	0.0%
7543-04 · AIP '43 - RPZ Acq/Tree Removal	0.00	250,000.00	-250,000.00	0.0%
7543-05 · AIP '43 - Retainer - Eligible	56,430.25	0.00	56,430.25	100.0%
7543-06 · AIP '43 - Non-Elig. Retainer	15,525.80	0.00	15,525.80	100.0%
Total 7543-00 · AIP '43 EXPENSE - Air Carr. Apr	477,790.95	1,385,182.74	-907,391.79	34.5%
7544-00 · AIP '44 EXPENSE RPZ EA				
7544-01 · AIP '44 - Eligible	11,321.38	0.00	11,321.38	100.0%
7544-02 · AIP '44 - Non-Eligible	0.00	0.00	0.00	0.0%
7544-00 · AIP '44 EXPENSE RPZ EA - Other	0.00	0.00	0.00	0.0%
Total 7544-00 · AIP '44 EXPENSE RPZ EA	11,321.38	0.00	11,321.38	100.0%
7545-00 · AIP '45 EXPENSE - Exp. AC Apron				
7545-01 · AIP '45 - Eligible	538,765.98	0.00	538,765.98	100.0%
7545-02 · AIP '45 - Non-Eligible	0.00	0.00	0.00	0.0%
7545-03 · AIP '45 - Retainer - Eligible	-18,595.74	0.00	-18,595.74	100.0%
7545-04 · AIP '45 - Non-Elig. Retainer	258.75	0.00	258.75	100.0%
Total 7545-00 · AIP '45 EXPENSE - Exp. AC Apron	520,428.99	0.00	520,428.99	100.0%

# Friedman Memorial Airport

## Profit & Loss Budget vs. Actual (COMBINED '19)

8:40 AM

07/31/19

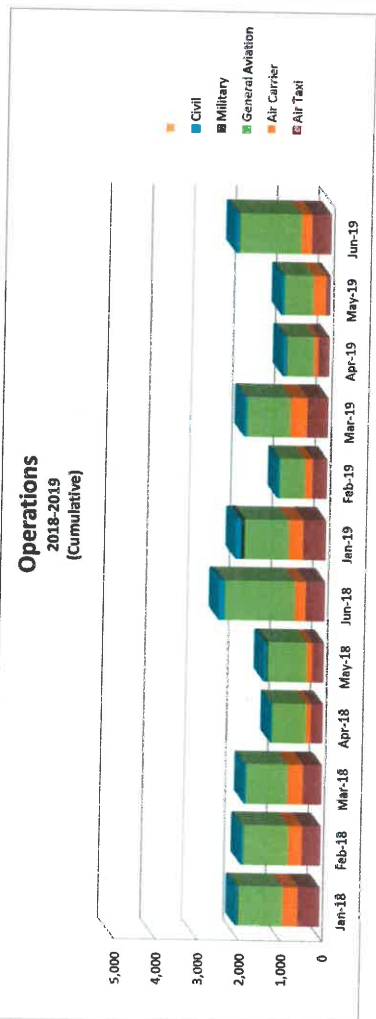
Accrual Basis

	Oct '18 - May 19	Budget	\$ Over Budget	% of Budget
7546-00 · AIP '46 EXPENSE - SRE/ARFF EQU				
7546-01 · AIP '46 - Eligible	57,875.84	0.00	57,875.84	100.0%
7546-02 · AIP '46 - Non-Eligible	0.00	0.00	0.00	0.0%
7546-03 · AIP '46 - Retainer - Eligible	0.00	0.00	0.00	0.0%
7546-04 · AIP '46 - Non-Elig. Retainer	0.00	0.00	0.00	0.0%
7546-00 · AIP '46 EXPENSE - SRE/ARFF EQU - Other	0.00	0.00	0.00	0.0%
Total 7546-00 · AIP '46 EXPENSE - SRE/ARFF EQU	57,875.84	0.00	57,875.84	100.0%
7547-00 · AIP '47 EXPENSE - TBD				
7547-01 · AIP '47 - Eligible	432,418.50	0.00	432,418.50	100.0%
7547-02 · AIP '47 - Non-Eligible	0.00	0.00	0.00	0.0%
7547-03 · AIP '47 - Retainer - Eligible	0.00	0.00	0.00	0.0%
7547-04 · AIP '47 - Non-Elig. Retainer	0.00	0.00	0.00	0.0%
Total 7547-00 · AIP '47 EXPENSE - TBD	432,418.50	0.00	432,418.50	100.0%
9001-00 · PFC 14-09-C-00-SUN				
9001-01 · PFC '14 RSA Formulation	0.00	0.00	0.00	0.0%
9001-02 · PFC '14 Acquire SRE	0.00	0.00	0.00	0.0%
9001-03 · PFC '14 Master Plan	0.00	0.00	0.00	0.0%
9001-04 · PFC '14 Relocate SW Taxiway By	0.00	0.00	0.00	0.0%
9001-05 · PFC '14 Relocate GA Apron	0.00	0.00	0.00	0.0%
9001-06 · PFC '14 Perimeter Fence Relocat	0.00	0.00	0.00	0.0%
9001-07 · PFC '14 RSA Grading	0.00	0.00	0.00	0.0%
9001-08 · PFC '14 Relocate Taxiway A & B	0.00	0.00	0.00	0.0%
9001-09 · PFC '14 Relocate Power to PAPI	0.00	0.00	0.00	0.0%
9001-10 · PFC '14 Relocate AWOS	0.00	0.00	0.00	0.0%
9001-11 · PFC '14 Relocate SRE/ARFF Bldg.	0.00	0.00	0.00	0.0%
9001-12 · PFC '14 Relocate Terminal Apron	0.00	0.00	0.00	0.0%
9001-13 · PFC '14 Relocate Cargo Apron	0.00	0.00	0.00	0.0%
9001-14 · PFC '14 Relocate Hangars	0.00	0.00	0.00	0.0%
9001-15 · PFC '14 Rehab Terminal Bldg.	0.00	0.00	0.00	0.0%
9001-16 · PFC '14 Relocate N. Taxiway	0.00	0.00	0.00	0.0%
9001-17 · PFC '14 Relocate Central Bypass	0.00	0.00	0.00	0.0%
9001-18 · PFC '14 Runway Rehabilitation	0.00	0.00	0.00	0.0%
9001-19 · PFC '14 Administration	0.00	0.00	0.00	0.0%
9001-20 · PFC '14 RETAINER	0.00	0.00	0.00	0.0%
Total 9001-00 · PFC 14-09-C-00-SUN	0.00	0.00	0.00	0.0%
Total "C" EXPENSES	1,539,298.12	1,485,214.74	54,083.38	103.6%
Total EXPENDITURES				
Total Expense	3,966,825.04	4,201,270.27	-234,445.23	94.4%
Net Ordinary Income	3,966,825.04	4,201,270.27	-234,445.23	94.4%
Net Income	-532,123.32	-1,127,072.65	594,949.33	47.2%
	-532,123.32	-1,127,072.65	594,949.33	47.2%

Friedman Memorial Airport  
June 2019

ATCT Traffic Operations Record																				
Month	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	
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	2,172	
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	1,187	
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	1,895	1,860	2,016	
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	1,257	1,116	
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	1,442	1,174	
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	2,552	2,292	
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	5,033	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	3,175	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	2,224	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	1,670	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	1,392	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	2,033	0	
Totals	50,858	55,897	44,739	45,032	43,607	43,002	50,712	33,836	31,699	32,350	30,555	28,269	32,140	23,307	24,815	26,716	26,692	26,571	9,957	

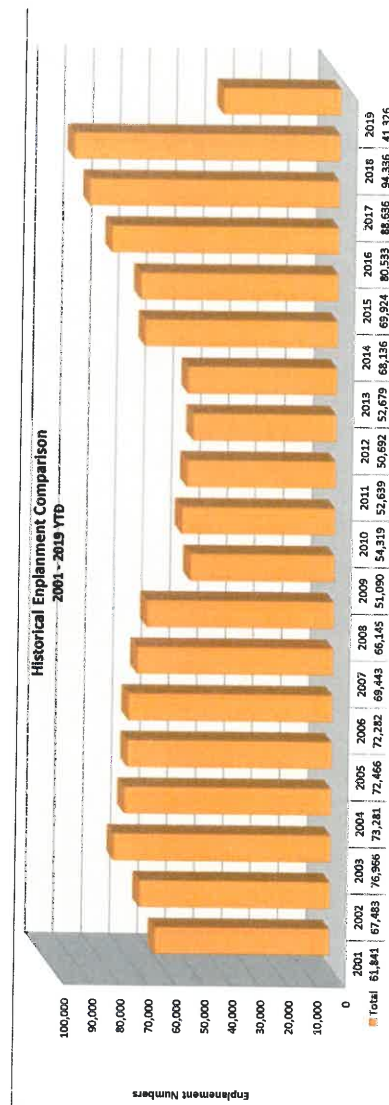
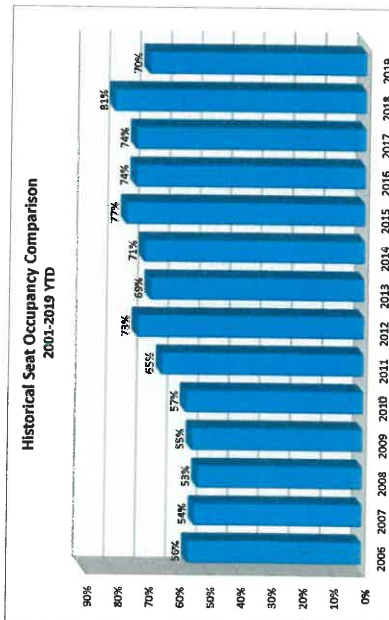
ATCT Operations Change (June 2019 vs. June 2018)					
	2019	2018	% Change		
Air Taxi	470	462	2%		
Air Carrier	251	259	-3%		
General Aviation	1,494	1,693	-12%		
Military	5	2	150%		
Civil	72	136	-47%		
Total	2,292	2,552	-10.19%		
YTD Total	9,957	11,044	-9.84%		





Friedman Memorial Airport  
June 2019

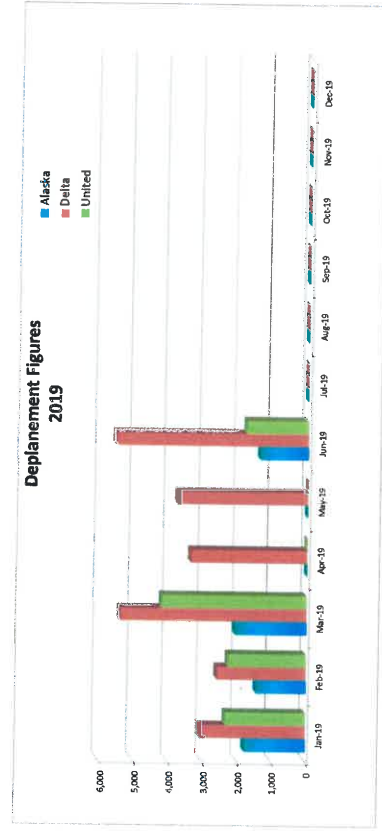
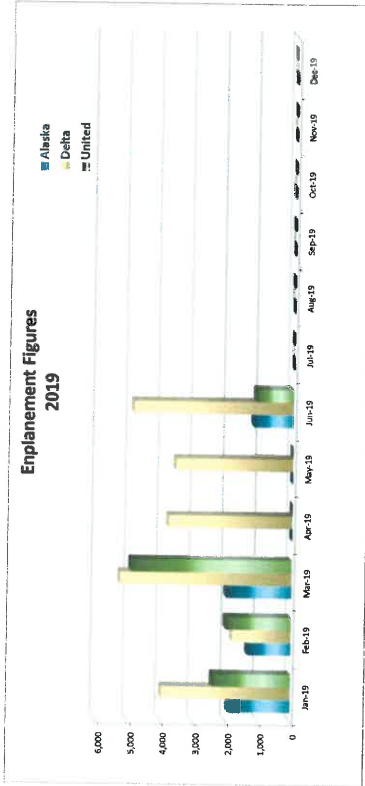
2019 Seat Occupancy																								
Date	Alaska Airlines					Delta Airlines					United Airlines					Seat Occupancy Totals					Seat Occupancy Totals Prior Year Comparison			
	Departure Flights	Seats Available	Seats Occupied	Percent Occupied	Departure Flights	Seats Available	Seats Occupied	Percent 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 %						
Jan-19	31	2,356	1,922	82%	78	5,928	3,974	67%	69	5,244	3,225	61%	13,528	9,121	67%	10%	-7%	-12%						
Feb-19	21	1,596	1,354	85%	47	3,572	1,826	51%	44	3,344	2,025	61%	8,512	5,205	61%	-18%	-31%	-12%						
Mar-19	31	2,356	2,018	86%	98	7,448	5,283	71%	92	6,992	4,951	71%	16,796	12,252	73%	16%	12%	-2%						
Apr-19	0	0	0	0%	59	4,484	3,804	85%	0	0	0	0%	4,484	3,804	85%	13%	14%	1%						
May-19	0	0	0	0%	62	4,712	3,616	77%	0	0	0	0%	4,712	3,616	77%	15%	12%	-2%						
Jun-19	23	1,748	1,239	71%	83	6,308	4,922	78%	34	2,584	1,167	45%	10,640	7,328	69%	6%	13%	5%						
Totals	106	8,056	6,533	81%	427	32,452	23,425	72%	239	18,164	11,368	63%	58,672	41,326	70%	-80%	-83%	-11%						



Friedman Memorial Airport  
June 2019

Date	2019 Enplanements														
	Alaska Airlines					Delta 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
Jan-19	1,868	54	1,922	4,051	-53%	3,876	98	3,974	3,281	21%	3,171	54	3,225	2,430	33%
Feb-19	1,328	26	1,354	3,949	-65%	1,764	62	1,826	2,602	-30%	2,003	22	2,025	2,129	-5%
Mar-19	1,972	46	2,018	4,379	-54%	5,112	171	5,283	3,193	65%	4,877	74	4,951	2,623	89%
Apr-19	0	0	0	127	-100%	3,704	100	3,804	3,305	15%	0	0	0	134	-100%
May-19	0	0	0	0	0%	3,514	102	3,616	3,458	5%	0	0	0	0	0%
Jun-19	1,186	53	1,239	2,212	-44%	4,814	108	4,922	4,355	13%	1,151	16	1,167	107	991%
Totals	6,354	179	6,533	14,718	-56%	22,784	641	23,425	20,194	16%	11,202	166	11,368	7,423	53%
Legend for Chart:															
41,326 42,335 -2.4%															

Date	2019 Deplanements														
	Alaska Airlines					Delta 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
Jan-19	1,724	50	1,774	3,377	-47%	2,944	100	3,044	2,372	28%	2,286	45	2,331	1,583	47%
Feb-19	1,418	29	1,447	4,188	-65%	2,526	56	2,582	2,708	-5%	2,227	41	2,268	2,332	-3%
Mar-19	2,002	64	2,066	4,033	-49%	4,956	419	5,375	2,822	90%	4,114	78	4,192	2,267	85%
Apr-19	0	0	0	117	100%	3,281	83	3,364	2,872	17%	0	0	0	79	-100%
May-19	0	0	0	0	0%	3,665	97	3,762	3,702	2%	0	0	0	0	0%
Jun-19	1,321	70	1,391	3,112	-55%	5,427	111	5,538	4,890	13%	1,761	40	1,801	372	384%
Totals	6,465	213	6,678	14,827	-55%	22,799	866	23,665	19,366	22%	10,388	204	10,592	6,633	60%
Legend for Chart															





# INSTRUMENT FLIGHT PROCEDURE FEASIBILITY ASSESSMENT

Friedman Memorial Airport (KSUN)

July 22<sup>nd</sup>, 2019



Flight Tech Engineering, LLC  
IFP@Flight-Tech.Aero





## **Project Goals:**

Inclement weather conditions and the lack of precision instrument approaches offering low weather capabilities have continually challenged aircraft operations at the Friedman Memorial Airport. This has resulted in a high level of diversions and cancellations during the winter and spring months. Additionally, smoke caused by occasional forest fires in the summer months can lead to reduced visibility beyond the capability of existing approaches.

With advances in onboard navigation technology, new solutions are now available to aircraft operators. The primary goal of the feasibility study was to evaluate new procedure design concepts that are compatible with today's airline jet fleet and ultimately reduce weather related diversions and cancellations. The benefit of more consistent access would improve the passenger experience for the flying public and reduce the non-scheduled busing between Haley and Twin Falls. Any procedure developed for airline use could also be made available to general and business aviation operations.

## **Executive Summary**

Flight Tech Engineering has carefully considered the operating capabilities and navigation performance of both airline and general aviation operators to determine the most viable instrument approach procedure solution at SUN. The results of the feasibility study have determined that new Performance Based Navigation (PBN) solutions can be implemented at the Friedman Memorial Airport. However, due to different aircraft equipage and the ongoing evolution from ground-based navigation to PBN, there is not a one size fits all public-use solution. Therefore, the new procedure concepts are tailored for aircraft equipped with advanced navigation systems, such as commercial airliners and properly equipped general/business aviation aircraft.

The most effective instrument approach procedure to implement that utilizes standard FAA design rules would be an Area Navigation (RNAV) approach with Required Navigation Performance (RNP-AR). The RNP-AR design criteria utilizes smaller obstacle accountability areas that pick up less terrain and vegetation features than any other form of procedure design. This resulted in ceiling and visibility values of 257 to 335 ft above the runway and 1-mile visibility depending on the climb gradient. While the RNP-AR approach can be implemented relatively simply, this type of approach provides reduced obstacle clearance margins and better minimums in exchange for a high degree of aircraft equipage and crew training levels. For example, instead of the FAA maintaining high precision ILS equipment (as was common in the past), RNP procedures shift the onus to maintain high precision navigation back to the aircraft operator. This requires advanced onboard navigation systems, performance monitoring, aircraft





certifications, and special aircrew training. All of these elements equate to additional costs for the operator which results in low usage rates outside of the major commercial airline operators (United, Delta, Southwest, etc). Of the regional airline and general aviation operators surveyed, only Alaska Airlines (and Horizon) were capable of utilizing this type of RNP-AR approach.

Working within the navigation capabilities of the current regional airline jet fleet and operator limitations, Flight Tech then focused on exploring RNAV (GPS) solution that didn't require specialized RNP-AR solutions. One such solution was the development of a RNAV (GPS) procedure utilizing Localizer Performance with Vertical Guidance. This is very similar to the precision levels of a ground-based ILS procedure and even utilizes the same on-screen visual course deviation displays to the pilots. Since pilots are already trained to fly an ILS, only minor differences training is required. Other than ensuring that a WAAS enabled GPS receiver is installed in the aircraft, there are no additional authorization requirements to use an LPV line of minima.

While a basic LPV procedure was possible, the standard vertical descent path extended through mountainous peaks 4nm southeast of the runway end. This caused steep descent angles (above 3.50 degrees) that were outside the tolerance level of the current airline jet fleet operator. In order to find a solution, Flight Tech began exploring the combination of different navigation modes that have only recently been written into FAA regulations. For example, the FAA has recently created new rules that allow use of basic RNP (level 0.30 to 1.0) to be used to connect the initial segments of the approach procedure to an RNAV (GPS) procedure utilizing LPV minima. This method is officially referred to as 'RNP to xLS', with 'xLS' being a landing system of the designer's choice (such as an ILS or LPV).

Utilizing this method, Flight Tech created an RNP to LPV procedure effectively creating a 'hybrid' navigation approach. The hybrid approach allowed for weather minimums of 5,632' AMSL / 343' above the runway threshold and 1-mile visibility. Following the design assessment, the procedure was then encoded for use in the aircraft's Flight Management Computer (FMC) and went through two simulator evaluation tests. Both tests proved successful and the aircraft accomplished the hybrid approach to a Decision Altitude (DA) as well as flying all elements of the missed approach. These new satellite-based navigation capabilities could open the door to more consistent aircraft operations at SUN.

### Acknowledgements:

The author of this feasibility assessment would like to thank all the individuals, organizations and entities that offered their assistance in the assembly of this report. This includes members of the FAA Western Flight Procedures Team, FAA Flight Standards,



FAA Air Route Traffic Control Center in Salt Lake City, General Aviation Tenants, Horizon Airlines, SkyWest Airlines, Delta Air Lines, Honeywell Aerospace, and the Friedman Memorial Airport Authority Staff.

In addition to the previously mentioned contributors, Flight Tech would also like to identify the extraordinary technical assistance provided by the entire Flight Operations Team at SkyWest Airlines. They were able to provide detailed flight operations engineering assessments pertaining to the Embraer 175 fleet for the future approach concepts. SkyWest also graciously allowed the use of their Embraer 175 simulator facility in Denver, CO for testing new approach procedure concepts.



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## Introduction

The Friedman Memorial Airport is surrounded by mountainous terrain in a narrow valley. When combined with inclement weather conditions, completing approaches to the airport can be problematic when utilizing the existing public flight procedures. The current non-precision approaches utilize high cloud ceiling and visibility values (herein referred to as 'minimums') which lead to a high rate of weather diversions in the winter months. New public instrument approaches to solve the weather problem have not been possible in the past due to the requirement for highly specialized navigation equipage to guide aircraft between narrow terrain beginning roughly 4nm southeast of the runway threshold.

Advances in satellite-based navigation equipment in recent years have opened the door to specialized procedures tailored to specific aircraft types and avionics. This category of navigation is referred to as Area navigation (RNAV). This would facilitate improvements to the Instrument Approach procedures at the Friedman Memorial Airport allowing for more consistent aircraft operations, increased safety, and improved passenger experience in inclement weather conditions.

With a focus on emerging navigation technologies and building on the success of existing private flight procedures utilized by Alaska/Horizon, Flight Tech Engineering, LLC (FTE) performed a feasibility assessment to determine the viability of a new Performance Based Navigation (PBN) procedure to serve SUN's Runway 31. PBN requires specific equipment and navigation performance monitoring requirements that allow for improved procedure design methods. Since the last study was performed, navigation improvements to air carrier fleets such as the Embraer 175 fleet type have occurred enabling opportunities for new PBN flight procedures to be utilized.

## Aeronautical, Weather and Geospatial Data Sources

Aeronautical information pertaining to the airport layout, runways, taxiways and lighting was obtained from FAA NFDC/NASR throughout the period of performance ranging from January to April 2019. Information related to the NAVAIDs on the airfield were obtained from FAA eNASR, AVNIS and AIRNAV databases.

Information related to instrument flight procedures was obtained from FAA Instrument Flight Procedures webpage between January and April of 2019, with supplemental information provided by through conversations with the FAA Western Flight Procedures Team related to previous attempts and work in progress.

Obstacle information was obtained from the FAA TPSS website and included an AC-150-5300-18B compliant Vertically Guided Approach (VGA) survey which was originally





performed in 2013. Additional obstacle information considered for this project came from the FAA Digital Obstacle File collected in March of 2019.

Terrain information was obtained from the USGS NED data set at a 10m spacing. Vegetation and Adverse Assumption Obstacles were applied to the terrain as required.



*Figure 1: Extent of Obstacle Data within SUN workspace.*

While the feasibility project was in progress, roughly 200 cottonwood trees were removed changing the obstacle data as it was previously recorded. In order to ensure the flight procedures accounted for the new obstacle site picture, FTE performed a spot survey to document which obstacles were removed. During post processing of the spot survey data, FTE deconflicted all available obstacle data sources in order to provide an accurate obstacle file from which to model new procedure concepts.

In addition to the tree removal, FMAA made Flight Tech aware of a proposal by Idaho Power Company to raise the height of powerline poles adjacent to the airport. FTE gathered the powerline proposal information and considered the impacts which were documented in a separate technical memorandum. To allow for new approach capabilities with low minimums, it's even more important than ever to protect the obstacle clearance surfaces from the introduction of new obstacles in the airport approach corridor.

### **Airport Facilities:**

SUN is currently served by a single runway. The primary runway direction is 13-31, which is a precision approach runway, 7550 feet long and 100 feet wide with a 1701 -foot



displaced threshold on the northwest end. The runway has high intensity runway edge lights, four-light Precision Approach Path Indicator (PAPIs) at the Runway 31 threshold. At the time of this report, no approach, centerline, or touchdown zone lighting existed. The Runway 13 threshold is setup to handle VFR and non-precision circle to land operations but does not have a dedicated PAPI. A full-length taxiway connects the runway to the parking aprons.

The Airport also has a SERCO staffed Air Traffic Control Tower (ATCT) that is in operation part-time. There is no low-level radar coverage available at SUN, which means that increased separation is required during periods when Instrument Meteorological Conditions (IMC) are affecting the airfield.

### Methods Used in This Analysis

Flight Tech evaluated the existing instrument procedures, the current obstacle environment, aircraft navigation enhancements, new procedure concepts and historical weather conditions at SUN to determine the overall benefit on operations that would occur from the development of new approach procedure types.

The first step in the analysis was to evaluate the existing instrument procedures to determine if enhancements could be made based on the best available obstacle data.

The evaluation of the approach procedures required the existing approaches to be reconstructed in an Instrument Procedure Development System (GPD) to determine if any criteria deviations were being applied by the FAA to achieve the currently published altitudes, fixes and minima.

For the approach analysis, FTE recreated the terminal area environment comprised of aeronautical and geospatial information used by the FAA to ensure the highest level of consistency between the analysis results and FAA results.

The second step in the analysis was to review the existing aircraft operators using SUN and determine which special operational approvals they had that would benefit from the use of the new PBN navigation capabilities. This involved multiple interviews with operators conducted both over the phone and via email. Both General Aviation and Airline operators were conducted as part of the survey.

The third step in the analysis was to develop and test new flight procedure concepts based on the navigation capability feedback received from the aircraft operators. Due to the lack of any on-field instrument landing systems or any planned installations in the future, the procedure development phase of the assessment focused on RNAV (GPS)



and RNAV (RNP) procedures. The most viable procedure was tested in a full motion simulator to confirm the viability of future implementation.

Finally, FTE compared the minimums that were achieved in the procedure concepts and compared them to the historical weather analysis prepared by T-O Engineering. This analysis determined the historical weather conditions present at SUN over the past 10 years that would expose flight operations to the need to use the procedures and special authorizations revealed in the first two steps of the analysis. This historical weather assessment focused specifically on low visibility conditions detected by the AWOS sensor using a time weighted assessment that considers both regular (hourly) reporting and off hourly updates to create a likelihood of conditions occurring, by month, by hour.

#### Global Procedure Designer (GPD)

Flight Tech utilized GPD version 6.0, developed by Maxar Technologies (MDA), for the assessment of flight procedures and airspace impacts. This latest version of GPD contains most of the latest conventional United States Standard for Terminal Instrument Procedures (TERPS) and Area Navigation (RNAV) criteria used by both the National Geospatial Intelligence Agency (NGA) and the United States Air Force (USAF) for procedure design and assessment at US airports and USAF bases abroad. GPD is used to both design new procedures and evaluate existing procedures through an interactive method of creating procedures and clearing deviations to criteria until only those criteria deviations (waivers) that remain are acceptable either by historical precedent or for design purposes.

#### FAA TARGETS

Flight Tech utilized the FAA's TARGETS ver 5.4.1.1 to analyze the proposed RNP-AR design concepts. Since this is the same software system the FAA uses, it allows Flight Tech to build new PBN approach concepts through the same perspective as the FAA. TARGETS has become the primary tool for the design of new RNP-AR and RNAV Visual flight procedures within the US National Airspace System (NAS).

#### Navigation Specifications:

The Federal Aviation Administration (FAA) is currently modernizing the National Airspace System (NAS) through the Next Generation Air Transportation System (NextGen). The goals of NextGen are to increase NAS capacity and efficiency while simultaneously improving safety, reducing environmental impacts, and improving user access to the NAS. As part of this development, Navigation methods within the US are currently shifting from traditional ground-based navigation methods such as Localizers and VORs to procedures utilizing the use of the Global Positioning System (GPS). These new



procedure types are referred to as Performance Based Navigation (PBN). PBN is the basis for defining system performance requirements for navigation equipment and installation specifications. These navigation specifications provide specific implementation guidance in order to facilitate global harmonization. The FAA's NextGen solutions are dependent on RNAV and RNP implementation.

## Evolution to Performance-Based Navigation

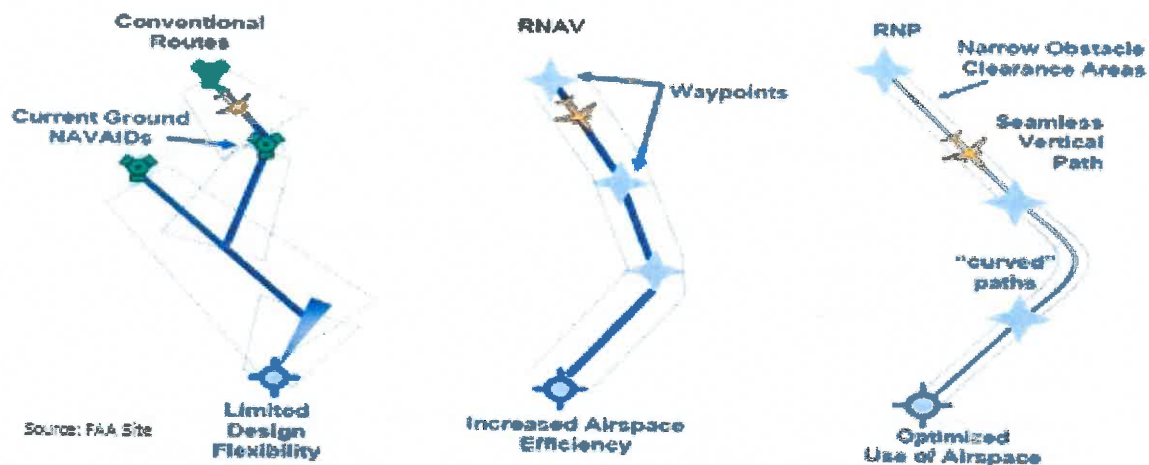


Figure 2: Example Conventional versus PBN Navigation Methods.

Due to the lack of any planned ground-based navigation installations at SUN, the feasibility assessment focused on the assessment of various specializations of the Area Navigation (RNAV). This includes RNAV (GPS) and RNAV (RNP). Descriptions of these navigation methods are as follows.

### RNAV (GPS):

Area Navigation (RNAV) enables aircraft to fly on any desired flight path rather than being constrained to an airway. RNAV systems have been available for a number of years and may utilize scanning DME, inertial navigation, GPS, TACAN, or other multi-sensor capability. Reliance on RNAV systems for instrument operations is becoming more common place as new systems such as GPS and augmented GPS such as the Wide Area Augmentation System (WAAS) are developed and deployed. In order to support full integration of RNAV procedures into the National Airspace System (NAS) procedures will be developed based on their ability to support vertically guided or non-precision lateral guidance only. The Wide Area Augmentation System, which was commissioned in 1994 allows for approach minima as low as 200 ft Height Above Threshold and ½ mile visibilities (with approach lights).



### RNAV (GPS) Lines of Minima:

RNAV (GPS) is a form of satellite-based navigation that supports four lines of minima which includes Lateral Navigation (LNAV), Lateral Navigation with Vertical Navigation (LNAV/VNAV), Localizer Performance (LP), and Localizer Performance with Vertical Guidance (LPV).

The four lines of minima that can be utilized on a RNAV (GPS) procedure are described by the FAA as follows.

#### LNAV:

LNAV minima is for lateral navigation only, and the approach minimum altitude will be published as a minimum descent altitude (MDA). LNAV provides the same level of service as the present GPS stand-alone approaches. LNAV minimums support the following navigation systems: WAAS, when the navigation solution will not support vertical navigation; and, GPS navigation systems which are presently authorized to conduct GPS approaches.

#### LNAV/VNAV:

LNAV/VNAV accommodates an RNAV IAP with vertical guidance, usually provided by approach certified Baro-VNAV, but with lateral and vertical integrity limits larger than a precision approach or LPV. LNAV stands for Lateral Navigation; VNAV stands for Vertical Navigation. This minima line can be flown by aircraft with a statement in the Aircraft Flight Manual that the installed equipment supports GPS approaches and has an approach approved barometric VNAV, or if the aircraft has been demonstrated to support LNAV/VNAV approaches. Since electronic vertical guidance is provided, the minima will be published as a DA.

#### LP:

"LP" is the acronym for localizer performance. Approaches to LP lines of minima take advantage of the improved accuracy of WAAS to provide approaches, with lateral guidance and angular guidance. Angular guidance does not refer to a glideslope angle but rather to the increased lateral sensitivity as the aircraft gets closer to the runway, similar to localizer approaches. However, the LP line of minima is a Minimum Descent Altitude (MDA) rather than a DA (H). WAAS avionics may provide GNSS-based advisory vertical guidance during an approach to an LP line of minima. Barometric altimeter information remains the primary altitude reference for complying with any altitude restrictions.

#### LPV:

"LPV" is the acronym for localizer performance with vertical guidance. RNAV (GPS) approaches to LPV lines of minima take advantage of the improved



accuracy of WAAS lateral and vertical guidance to provide an approach that is very similar to a Category I Instrument Landing System (ILS). The approach to LPV line of minima is designed for angular guidance with increasing sensitivity as the aircraft gets closer to the runway. The sensitivities are nearly identical to those of the ILS at similar distances. This was done intentionally to allow the skills required to proficiently fly an ILS to readily transfer to flying RNAV (GPS) approaches to the LPV line of minima. Just as with an ILS, the LPV has vertical guidance and is flown to a DA. Aircraft can fly this minima line with a statement in the Aircraft Flight Manual that the installed equipment supports LPV approaches.

#### RNP:

Required Navigation Performance (RNP) is similar to Area Navigation (RNAV); but, RNP requires on-board navigation performance monitoring and alerting capability to ensure that the aircraft stays within a specific containment area.

These approaches have stringent equipment and pilot training standards and require special FAA authorization to fly. Scalability and RF turn capabilities are mandatory in RNP AR eligibility. RNP Approach vertical navigation performance is based upon barometric VNAV or WAAS. RNP AR is intended to provide specific benefits at specific locations. It is not intended for every operator or aircraft. RNP AR capability requires specific aircraft performance, design, operational processes, training, and specific procedure design criteria to achieve the required target level of safety. RNP AR APCH has lateral accuracy values that can range below 1 in the terminal and missed approach segments and essentially scale to RNP 0.3 or lower in the final approach.

There are several different levels of RNP. Examples of RNP levels used for approach include RNP 0.1, RNP 0.3, and RNP 1.0 (There are also RNP 4.0 and RNP 10.0 levels that apply in the en route environment). "A performance value of RNP 0.3, for example, assures that the aircraft has the capability of remaining within 0.3 of a nautical mile to the right or left side of the centerline 95 percent of the time."

### Airport Flight Operations Assessment

The airport is served by several major airlines through their regional air carrier affiliates, along with general aviation and cargo.

#### General & Business Aviation

General Aviation is served on the airport by a dedicated ramp space and fixed base operator on the southwest portion of the airfield. The FBO is run by Atlantic Aviation and handles the servicing and fueling of transient and based general and business aviation aircraft. General Aviation observes influxes during winter and summer seasons due to



increase of people traveling to SUN for skiing, conferences, festivals, and other recreational events. Aircraft in this category range from small piston single and twin-engine aircraft to business jets such as Gulfstream, Bombardier, and Dassault.

### Airline Operations

Airline service is provided by Alaska, Delta, and United through their wholly owned or regional airline partners. The aircraft utilized on these routes are primarily the Embraer 175 regional jets and the Bombardier Q400 turboprop. Occasionally Canadair Regional Jets (CRJ-700s) are supplemented on these routes. The seating capacity of the Embraer 175 ranges between 70-76 seats in mixed cabin and the Q400 is 76 in an all main class cabin. From SUN, passengers can fly non-stop to hub airports in Chicago, Denver, Los Angeles, Salt Lake City, San Francisco, and Seattle.

Commercial airline and charter operations at SUN operate under FAR Part 135 and 121 and are required to consider One Engine Inoperative (OEI) obstacle clearance performance limitations on takeoff and consider OEI performance on the missed approach, go-around and balked landing. Operators utilize the existing public and special approach procedures with additional company generated procedures, which enable decision altitudes to handle the possibility of engine failures at different points along the published approach and departure paths.

### Operator Outreach and Aircraft Navigation Technologies:

FTE consulted with two regional air carriers operating at SUN during the outreach phase of the project. The purpose of the meetings was to determine what avionics equipage, training, and aircraft performance restrictions that were applicable to each fleet type. Since airlines have thousands of pilots and large aircraft fleets, making changes to the navigation capabilities within the fleet can result in significant cost burdens. Air carriers maintain year-round daily operations at SUN and therefore represent the most critical user group at the airport. The navigation technology varies between aircraft and the manufacturer usually equips the aircraft on delivery per the operator's request.

**Bombardier Q400:** Alaska and Horizon Airlines were early adopters of Required Navigation Performance (RNP) technology. This was necessitated by the harsh operating conditions that are present when operating in Alaska. This same equipage level is maintained fleet wide and is extended to their operations in the lower 48. The Q400 fleet is equipped to fly both RNP-AR operations down to a level of 0.10 as well as RNAV (GPS) procedures with LPV lines of minima. Horizon currently utilizes an internally developed private special RNP-AR procedure with company specific special design criteria that is tailored to the Q400. At time of the assessment, Horizon does not currently operate regional jets at SUN.



**Embraer 175:** SkyWest Airlines currently operates the Embraer 175 on behalf of both United and Delta Airlines. The aircraft comes equipped from the factory with the ability to fly RNAV (GPS) approaches with LNAV and LNAV/VNAV lines of minima and software can be upgraded to allow for LPV approaches utilizing the Wide Area Augmentation System (WAAS). RNP-AR is certified on the aircraft but is limited to RNP levels of 0.30 in the Final Approach Segment (FAS) and 1.0 in the Missed Approach Segment (MAS). The FMS can be upgraded to allow for RNP levels down to 0.10 but a substantial investment in aircraft avionics, crew training, and operator certification is required to achieve this level.

#### General & Business Aviation Aircraft:

FTE discussed instrument approach procedure improvements with three different general aviation operators at SUN. FTE also has significant experience with a wide range of general aviation operators working on other flight procedure projects. The key concern that G.A. operators expressed was a desire to have a procedure that worked with existing avionics, the least amount of additional regulatory hurdles for adopting the procedure, and vertical guidance to the runway.

The navigation capabilities of the general aviation fleet vary widely, and numerous avionics manufacturers produce onboard navigation equipment for this segment. Based on the surveyed operators, most were equipped to fly RNAV (GPS) procedures utilizing LNAV, LP, and LPV lines of minima. Navigation equipment ranges from basic GPS navigators such as the Garmin GNS-430 to airline grade Flight Management Systems (FMS) such as the Honeywell Primus Epic/NG and Rockwell Collins Pro Line Fusion systems. Of the general aviation operators that FTE spoke to, none were capable of flying low level RNP-AR procedures. Due to the regulatory burdens required to utilize RNP-AR, only a small number of operators have equipped, and this is usually relegated to large cabin business jet operations where the customer has a consistent need to access challenging airports. In the future, RNP equipment may increase if regulations are eased, but over the next decade the preferred General Aviation navigation method will be RNAV (GPS) or traditional ground-based procedures.

#### Existing Instrument Approach Capabilities

The following table describes the existing instrument approach capabilities in operation at SUN. This is helpful in determining which approaches might be impacted due to equipment changes.



Table 1: Public Approach Minimums

Runway	Approach	Line of Minima	Climb Gradient	CAT A	CAT B	CAT C	CAT D
RWY 31	RNAV (GPS) X	LP (WAAS)	420	6180-1 1/4 (891)		6180-2 1/2 (891)	
		LNAV	420	6920-1 1/4 (1631)	6920-1 1/2 (1631)	6920-3 (1631)	
	RNAV (GPS) Y	LP (WAAS)	410	6900-1 1/4 (1611)	6900-1 1/2 (1611)	6900-3 (1611)	
		LP (WAAS)	200	7220-1 1/4 (1931)	7220-1 1/2 (1931)	7220-3 (1931)	
		LNAV	410	7100-1 1/4 (1811)	7100-1 1/2 (1811)	7100-3 (1811)	
		LNAV	200	7340-1 1/4 (2051)	7340-1 1/2 (2051)	7340-3 (2051)	
		Circling	200	7340-1 1/4 (2020)	7340-1 1/2 (2040)	7580-3 (2260)	7940-3 (2620)
	NDB/DME-A	Circling	200	8040-5 (2720)			N/A

The RNAV (GPS) X procedure provides aircraft the best chance of achieving access to the airport during low cloud and ceiling conditions, although this procedure utilizes Localizer Performance (LP) technology which is not supported by airline navigation computer systems.

Note: At the time this report was being written, the FAA Western Region had notified the airport, that they were exploring the possibility of cancelling the NDB-DME-A procedure due to its lack of use. A survey of local operators indicated that most pilots preferred to use the GPS approach over the NDB/DME-A due to better reliability and ease of navigation.

## New Approach Procedure Assessment

Based on feedback collected through the stakeholder outreach two primary procedure design types were selected for assessment. They are both area navigation procedures (RNAV) with the first type relying on Global Positioning System (GPS) and the second utilizing Required Navigation Performance (RNP) which is comprised of multiple sensor inputs (GPS/DME/IRU, etc).

### Standard RNP-AR Assessment:

For properly equipped aircraft, RNP technology allows for curving approaches that can avoid mountainous terrain and man-made structures. This provides for minimums similar to a precision instrument approach without the need for ground-based infrastructure. There have been two RNP procedures in place at Hailey throughout the years. The FAA once had a procedure available but rescinded it due to lack of use and excessive length in the missed approach segment. Alaska/Horizon has also developed a private RNP approach procedure utilizing specialized criteria tailored to their Bombardier Q400 fleet. Due to the aircraft specific tailoring, this approach cannot be shared or utilized by aircraft operators outside of Alaska/Horizon.



Upon review of the previous FAA design, FTE performed an assessment of the terrain and obstacles and began a clean sheet design of a new RNP procedure. Hailey's location within a valley surrounded by mountainous terrain makes it challenging for designing standard instrument approaches. Standard RNP design utilizes Standard RNP widths of 0.30 in the final approach segment and 1.0 in the missed approach segment. The procedure was built utilizing a glidepath of 3.50 degrees allowing it to be compatible with the current CAT D jet fleet. Most modern airline fleets have the ability to fly standard RNP levels.

The goal of the design was to build a flight path that avoids high terrain points within the OAA as the aircraft arrives to the runway environment. In the case of Hailey, the standard RNP 0.30 design areas overlie rising terrain in the final and missed approach segments. Since the aircraft must have visual contact with the runway environment before descending below the Decision Altitude (which is set by the highest terrain point in each segment), the procedure minimums were in excess of 1500 ft above the runway threshold when utilizing standard RNP values. Since this did not provide a significant increase over current public procedures, the design was not explored further.

#### Low RNP-AR (Below .30):

When standard RNP-AR design prevents the desired minimums from being achieved, an advanced level of RNP can be utilized commonly referred to as 'Low RNP'. This utilizes RNP levels between 0.10 and 0.30 in the final approach segment and a telescoping missed approach segment that begins at RNP values below 1.0. These smaller obstacle accountability areas surface widths allow for an even better opportunity to avoid high terrain points during design. The tradeoff though is that it is harder for operators (GA & airline) to obtain approval to fly Low RNP procedures without significant investment in avionics, aircraft certifications, and crew training.

Since at least one of the current airline operators at SUN can utilize a Low RNP solution, further assessment was completed. The design began with determining the RNP starting at the runway threshold. Values ranging from .10 to .30 were evaluated. The goal was to apply the highest RNP value without causing an increase in the decision altitude as final segment RNP values were incrementally increased from .10 onward. Testing quickly revealed that any RNP value above 0.10 began encroaching on powerlines and trees on the east side of the runway environment. For this reason, it was determined that the optimal final segment RNP value would have to be 0.10 in order to achieve the lowest minimums. Next the intermediate and initial segments were designed. Due to the utilization of Radius to Fix (RF) turns in the final segment, the initial approach was aligned over the flat portions of the valley and therefore no terrain clearance issues were encountered in any portions of these segments.



The design of the Low RNP was performed using the specific requirements as outlined in PBN criteria. Utilizing a telescoping obstacle area, a standard missed approach was designed. Beginning at the Decision Altitude, the missed approach starts expanding slowly until it reaches the missed approach holding fix. Based on feedback from operators of the Embraer 175, the procedure route was carefully planned to allow for a straight segment over low terrain to allow the aircraft to transition from a landing configuration to go-around in the event of missed approach or balked landing. To the benefit of missed approach, the valley continues north of the airport along Highway 75 allowing for an area relatively clear of encroaching obstacles or terrain for roughly five nautical miles. Once the aircraft reaches this point, it has the necessary terrain clearance to begin a turn back to the south for the missed approach hold at the PRESN Fix. A CAT D capable speed restriction of 185 knots was utilized to prevent excessive flight path expansion and to keep the aircraft away from higher terrain during the missed approach segment.

Despite carefully routing the flight path over low points in the terrain, the telescoping missed approach does pick up high terrain points as it starts to head north. To overcome rising terrain when the aircraft begins flying over higher terrain, a combination of a DA increase and non-standard climb gradient was utilized. Raising the Decision Altitude to 335' allowed non-standard climb gradient of 412 ft/nm. From an FAA approval perspective, if the climb gradient remains below 425 ft/nm, it prevents design criteria deviations that require a waiver.

#### Summary of RNP-AR Assessment:

The assessment determined that an RNP-AR procedure allows for the lowest minimums and best terrain clearance. However, standard RNP values of 0.30 in the final and 1.0 in the missed were not viable and produced minimums that were higher than existing public procedures. Low RNP-AR values utilizing an RNP 0.10 final segment and telescoping missed below 1.0 produced the best approach minimums of 5264 ft AMSL which corresponds to a height above the runway of 335'. Visibility values for the Low RNP approach is 1 statute mile based on a 335 ft HAT Visibility values as low as  $\frac{3}{4}$  SM are possible utilizing special RNP criteria.



Images of the RNP Approach Design:

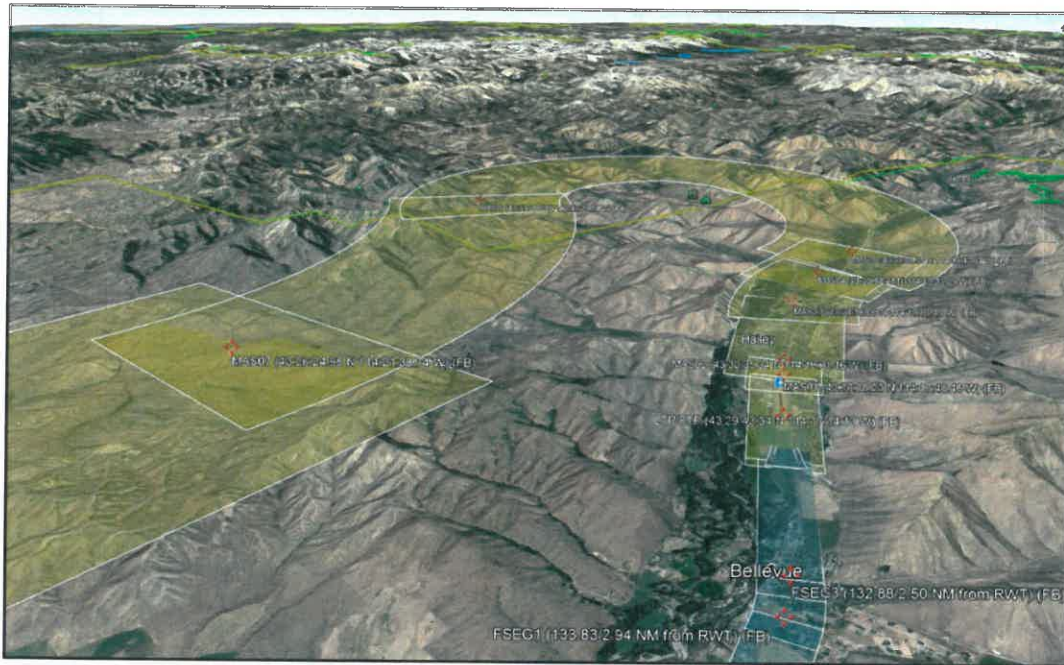


Figure 3: RNP-AR Final & Missed Approach Segments

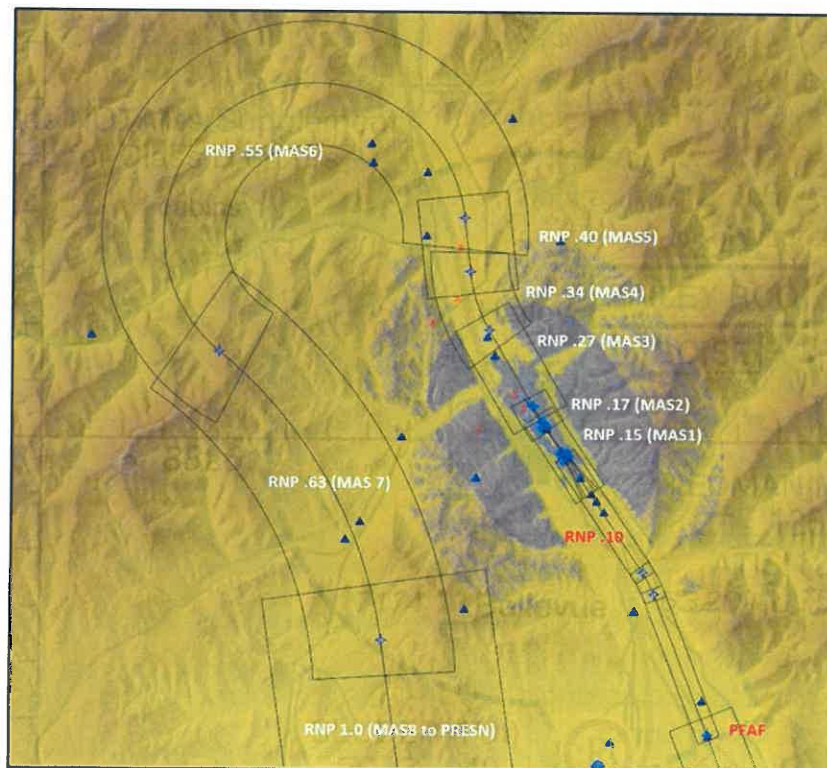


Figure 4: Telescoping RNP values

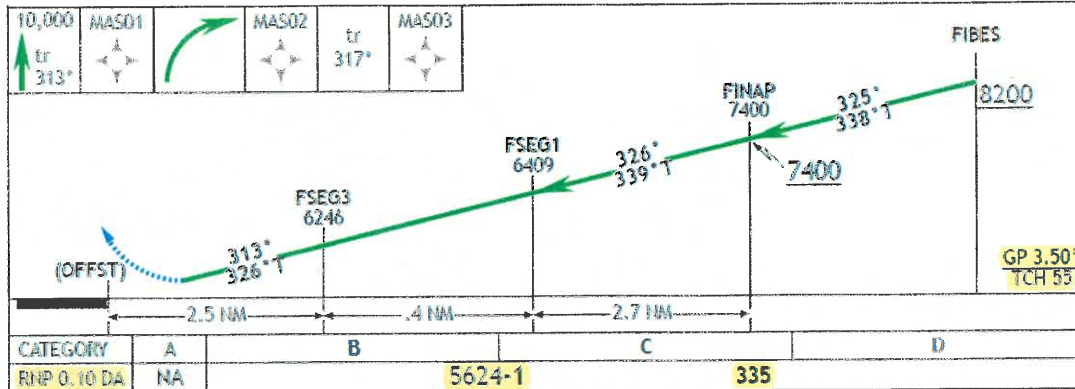


Figure 5: RNP-AR Procedure Minimums

### Standard LPV Assessment:

Since the majority of users indicated that an LPV procedure was the most compatible with their avionics capabilities, FTE focused the majority of the feasibility study on a RNAV (GPS) Procedure with Localizer Performance with Vertical Guidance (LPV). The design standards for this type of procedure require the Final Approach Course (FAC) to be aligned with the runway extended centerline within three degrees. The major design advantage of LPV procedures is the narrow Obstacle Accountability Area (OAA) which is a trapezoid shaped area that funnels down to the runway threshold. General and Business Aviation aircraft usually fall within approach speed categories A-C, for which the maximum glidepath angle is 3.77 degrees. Commercial airliners (including some regional jets) usually fit within an approach speed range of C & D of which the maximum CAT D glidepath angle is 3.50 degrees which was selected as the target for this procedure.

When building a new procedure, the design specialist starts at the runway threshold and builds outward towards the initial approach fixes. The first segment is the final approach segment (FAS). This usually has a minimum length of 3nm and can extend outward to 10nm. Upon building the FAS, it was noted that obstacles on a mountainous peak named Lookout Mountain were penetrating the obstacle clearance surface (OCS). Since an obstacle penetration is not allowed, multiple

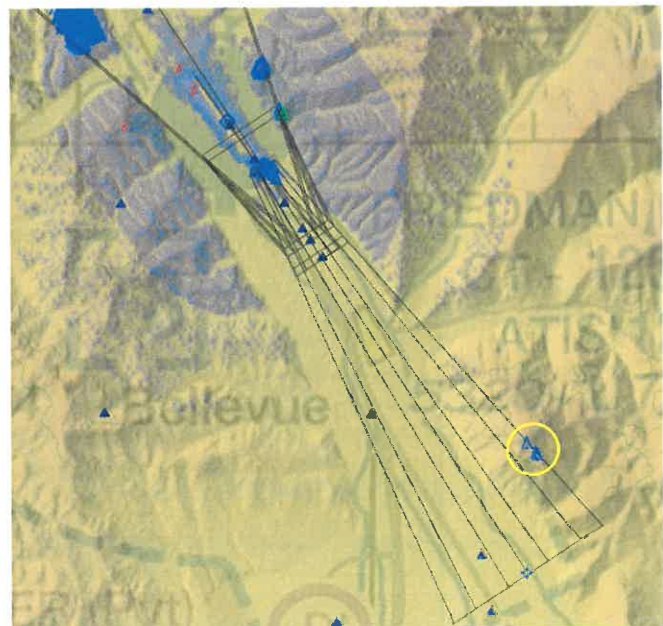


Figure 6: Controlling Obstacle (Lookout Mountain) on LPV segment



attempts were made to modify the procedure path to avoid this area.

Once the quality of the obstacle data was reviewed, an attempt was made to offset the angle of the Final Approach Course to a maximum extent of 3.0 degrees and raising the glidepath angle to a Category C maximum of 3.77 degrees. Additionally, the Final Approach Segment was shortened by moving the Final Approach Fix (FAF) closer to the runway threshold and angling the intermediate approach segment fifteen degrees southwest of the FAC. By shortening the FAC, the obstacle penetration at Lookout Mountain was removed from the FAS but transferred to the intermediate segment which has an even high requirement for obstacle clearance. While the combination of offsetting the FAC and intermediate segment helped, unfortunately, none of these methods allowed for avoidance of the terrain penetration on Lookout Mountain. It was also noted that any offset of the FAC caused a downline impact of the missed approach segment, moving the course farther to the north placing it in rising terrain. This offset negatively affected the climb gradient requiring excessive levels.

As a result of the obstacle issues, it was determined that a standard criteria RNAV (GPS) procedure with an LPV line of minima is not possible at SUN without increasing the glidepath angle beyond 5 degrees or offsetting the final approach course beyond three degrees.

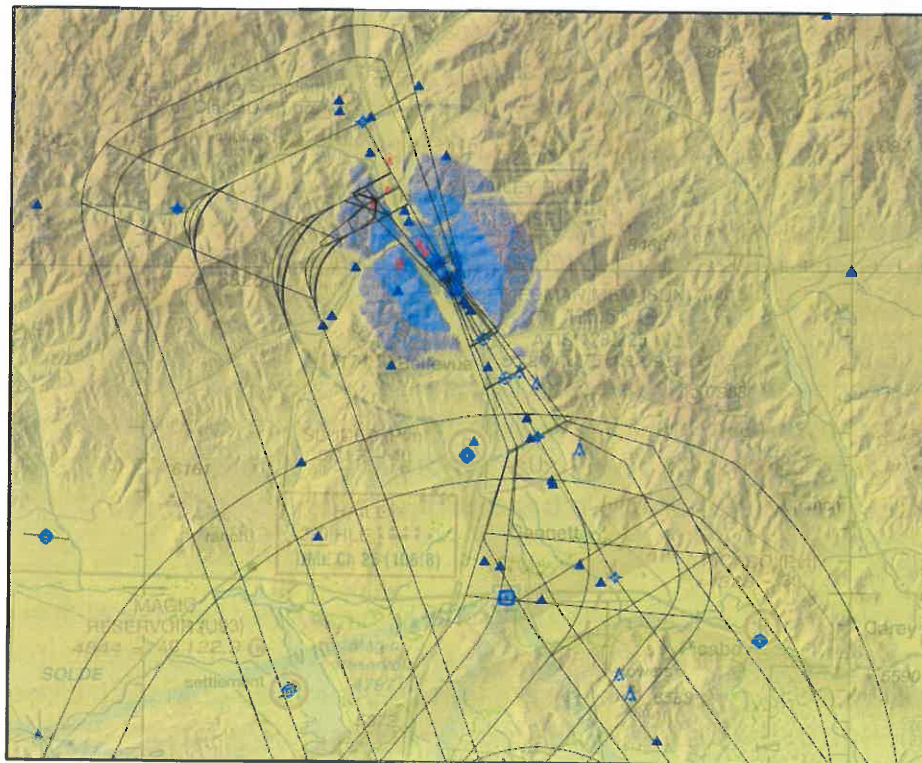


Figure 7: Standard LPV Procedure design utilizing 3-degree offset.



### Hybrid RNP to LPV Solution

The FAA has recently published criteria (Order 8260.58A) allowing for the joining an Instrument Landing System (ILS), Ground Based Landing Systems (GLS) and LPV final segment to an RNP initial and intermediate segment. Based on feedback from the target air carrier, RNP capabilities utilizing a design half width of 0.30nm was possible in the intermediate and initial segments. As established in the earlier RNP approach feasibility assessment, anything less the 0.30 in the final segment was not possible to due aircraft software and certification limitations.

With these limitations in mind, the procedure design specialist began testing the feasibility of connecting an RNP 0.30 Intermediate segment to a WAAS vertically guided Final approach segment. The key element for the design was to ensure that both the intermediate and final segments avoided the terrain point on Lookout Mountain. To do this the LPV portion of the procedure had to be limited at 2.6 NM, which at a 3.50 degree glidepath corresponded to an LPV intercept altitude of 6300 ft AMSL. A curved path Radius to Fix (RF) turn was used to connect the RNP intermediate segment to the final segment allowing for the path to avoid Lookout Mountain.

The missed approach segment was built utilizing standard RNAV criteria starting at the LPV DA as it allowed for slightly better obstacle clearance than what RNP 1.0 provided. Similar to the RNP procedure, a balance point had to be reached between the climb gradient and the Decision Altitude. Since the RNAV missed approach laterally expands outward from the DA, it immediately starts picking up terrain points on the rising hills and mountains adjacent to the airport environment. Extensive testing of the DA/CG equation revealed that it was a case of diminishing returns. As the DA is raised the Missed Approach Obstacle Surfaces expand to account for more variability of the flight path. This moves the surfaces in to even higher terrain. The testing indicated that a D.A. of 343' and a climb gradient of 600 ft/nm provided the best combination. Since this CG is outside the range of established standard criteria, a waiver would have to be issued. This would require air carriers to review aircraft performance capabilities and to establish a balked landing and one-engine inoperative contingency procedure in order to utilize the non-standard climb gradient.

### LPV Findings Summary:

A standard RNAV (GPS) solution with LPV line of minima is not feasible at SUN due to excessive terrain penetrations in the final and missed approach segments. For aircraft operators with adequate performance to handle the missed approach climb gradient and capability to fly RNP 0.30 in the initial and intermediate segments the hybrid solution is feasible.

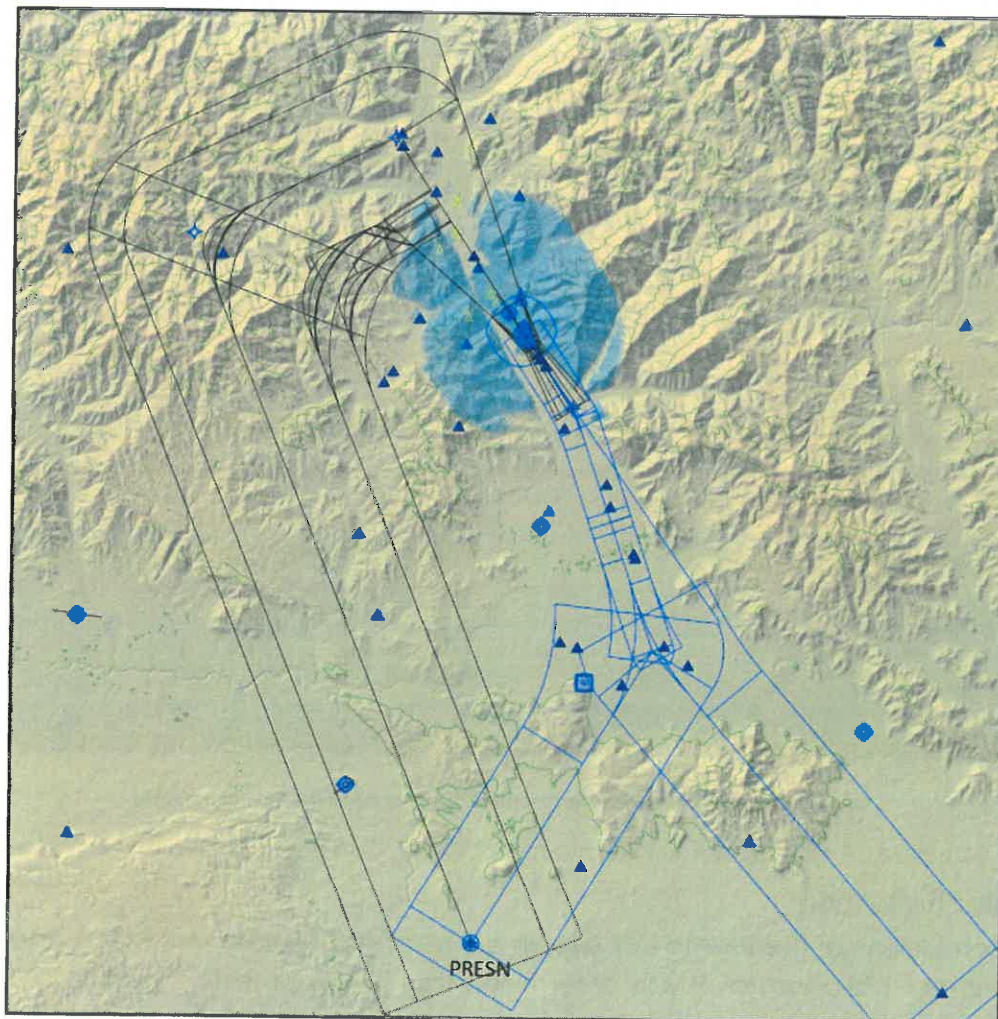


Figure 8: RNP to LPV Procedure Segments

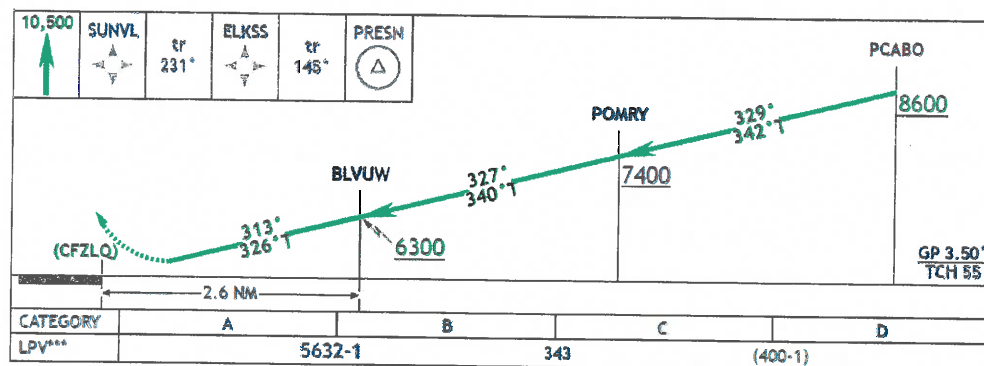
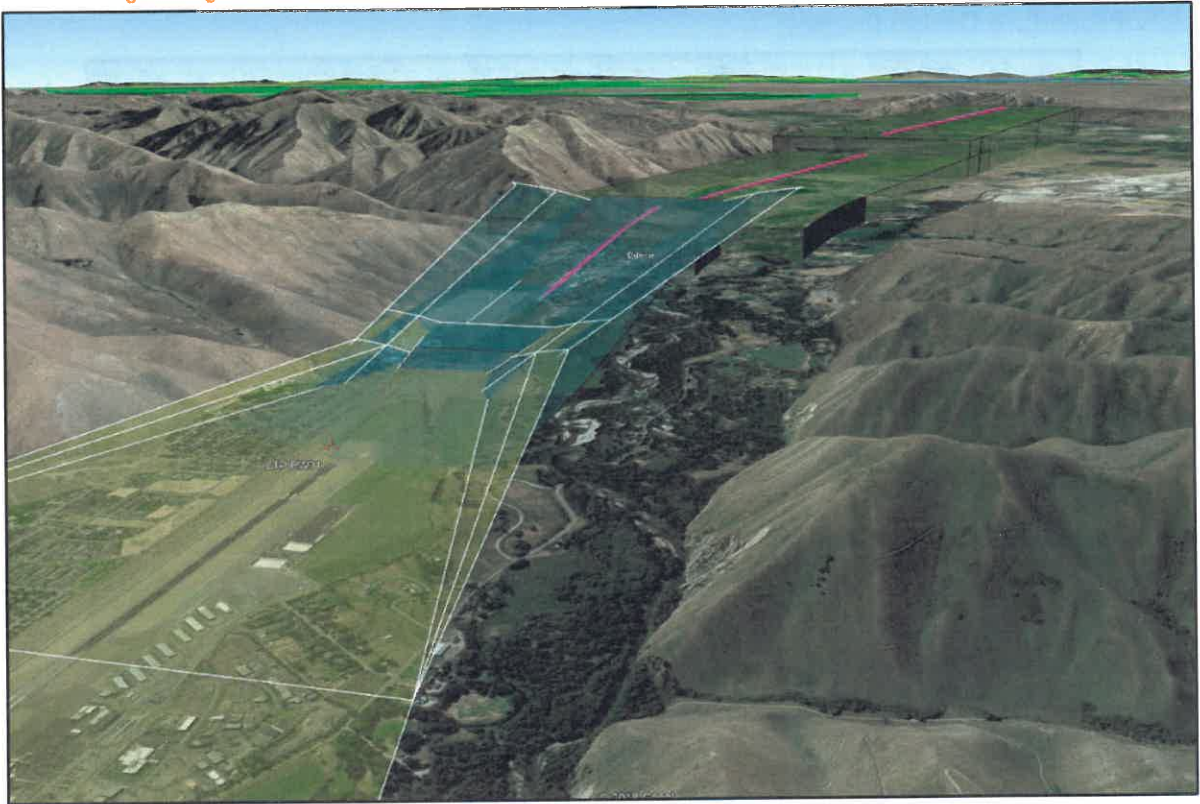


Figure 9: RNP to LPV Procedure Minimums





*Figure 10: RNP to LPV Obstacle Clearance Surfaces (Final & Missed Approach)*

### Simulator Evaluation:

Upon completion of the RNP to LPV design concept and review with FMAA and the lead Embraer 175 operator, it was determined that simulator testing would be performed to validate the proof of concept. In modern day airliners the navigation capabilities are centered around the Flight Management System, which in the E175 is manufactured by Honeywell Aerospace.

The first step in the process was to ensure the hybrid design was compatible with the FMS. To this end, Flight Tech began the outreach process with Honeywell for validation of the procedure with the original equipment manufacturer (OEM). This process involves encoding the flight procedure into a specific computer language that the FMS onboard the aircraft can interpret. Once the procedure was encoded, it was loaded on to an FMS in their testing laboratory in Phoenix, AZ. The FMS validation was successfully completed on March 11<sup>th</sup>, 2019. The feedback from the engineering team indicated that it flew as designed with no deviations encountered.



With the FMS evaluation complete, the next step of the evaluation involved testing the procedure in a full motion Embraer 175 simulator. The procedure data was again sent to Jeppesen and Honeywell for encoding, charting, and inclusion in a test database for flying in the E-175 at Flight Safety in Denver, CO.

The approach and extraction procedure went through three hours of comprehensive tests to check the initial flyability and then to stress test the aircraft performance and system reaction. Different weather conditions and failure modes were simulated to assess how the aircraft, avionics, and flight crew handled the event.

The following historical Environmental Parameters were considered for evaluation:

**Summer Conditions: (July/August)**

Avg High: 85°F / 29.4° C

Max High: 93°F / 33.8° C

Avg Pressure: 30.15 (Hg)

**Winter Conditions: (DEC-MAR)**

Avg Temp: 21°F / -6°C

Low Temp: -2°F / -19°C

Avg Pressure: 30.10 (Hg)

**Tailwind:** 0-10 Kts

**Aircraft Landing Weight as tested:** 70,000-74,000 lbs



*Figure 11: LPV Final Approach in the E-175 simulator*





The results of the simulator evaluation scenarios were all very positive. All procedure segments flew as designed and there were no lateral deviations. No Ground Proximity Warning System (GPWS) warnings were encountered. Noteworthy, was that in the first test of the new approach, the onboard systems and crew safely navigated the aircraft smoothly to the runway for a successful landing without issues. Feedback from the sim crew indicated that the continuous lateral and vertical guidance provided by the procedure made it extremely easy to fly and provided a higher level of precision than what is currently available.

### Implementation Options

The existing flight procedures represent the lowest possible minimums the Friedman Memorial Airport can achieve without deviating from standard FAA TERPS criteria or implementing special procedures. The two special solutions that could be implemented are a Low-RNP and/or a Hybrid RNP to LPV approach, but they are both highly customized solutions. It's possible the FAA could develop a Low-RNP public approach, but based on operator equipage feedback, the number of operators who would be able to use that would be low.

The Hybrid RNP to LPV solution utilizes design criteria waivers that would require it be built within the special procedure category. Special IAPs are also developed using FAA TERPS/RNAV guidance but are not available to the general public without authorization. The FAA authorizes only certain individual pilots and/or organizations to use special IAPs and may require additional crew training and/or aircraft equipment or performance. Most Special Procedures that are aircraft specific are not developed or funded by the FAA. As a result, there are unique requirements and therefore multiple pathways towards implementing a new special procedure.

**Option A:** A qualified private air carrier (i.e. airline) can develop, implement, flight validate the procedure. Once implemented, the procedure is proprietary to that airline and is usually not shared. If the airline or aircraft operator decides to no longer serve SUN, the special approach cannot be easily transferred. Only a few airlines have their own in-house procedure development, validation, and maintenance divisions (i.e. Alaska, Delta, etc). Alternatively, the airlines can hire a third-party procedure developer to implement the procedure on their behalf but can be cost prohibitive especially for regional airlines who don't control their route structure.

**Option B:** The airport can sponsor a special approach procedure for use by multiple operators. This allows for the procedure to assigned to multiple users and helps spread out the cost of development and maintenance. An FAA approved



third-party procedure can design, flight validate, implement, and maintain the approach during the period of use.

#### Procedure Approval Process

Even though Special Procedures are developed by a non-FAA Service Provider, they go through the same FAA coordination and quality assurance process as a standard public procedure. The timeline between the start and finish is usually 8-12 months. The development and implementation process would begin with finalizing the procedure encoding, initiation of coordination meetings with SLC ARTCC, and waiver approval meetings with FAA Flight Standards. Additionally, once the procedure design phase is complete state it will need to be flown (i.e. flight validation) in a PBN aircraft equipped with the necessary software upgrade for LPV and RNP .30. A lead air carrier would be identified who could participate in the flight validation. Flight Tech Engineering is an FAA authorized instrument flight procedure developer and holds an LOA from the FAA to perform these functions.

-END OF REPORT-



## **MEMORANDUM**

**TO:** Chris Pomeroy, Airport Manager, Friedman Memorial Airport (SUN)

**FROM:** Nathan Cuvala, PE

**DATE:** February 14, 2019

**SUBJECT:** SUN – Instrument Approach Improvements Weather Analysis

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### **1. INTRODUCTION**

The airport is currently working with Flight Tech Engineering to explore potential instrument approach improvements. This memorandum summarizes available weather data and potential ceiling and visibility improvements to understand the potential improvements to all weather access to SUN.

### **2. PROJECT BACKGROUND**

Runway 31 at SUN is served by three instrument approaches including two Global Positioning System (GPS) approaches and one Non-Directional Beacon (NDB) approach. The ceiling and visibility minima for Approach Category C aircraft for each of the approaches is shown in the table below.

Approach	Category	Ceiling (feet)	Visibility (miles)
<b>RNAV X RW 31</b>	LNAV – 420 ft/NM Climb	1600	3
	LP – 420 ft/NM Climb	900	2 ½
<b>NDB/DME -A</b>	Circling – Standard Climb	2800	5
<b>RNAV Y RW 31</b>	Circling – Standard Climb	2300	2 ½
	LNAV – Standard Climb	2100	3
	LNAV – 410 ft/NM Climb	1800	3
	LP – Standard Climb	1900	3
	LP – 410 ft/NM Climb	1600	3

The approach with the lowest minima is the RNAV X LP approach with a Decision Altitude (DA) of 6180 feet, a Height Above Touchdown (HAT) or ceiling of 900 feet, and visibility minima of 2 ½

mile or greater for Category C and D aircraft. Though this approach provides the lowest minima, it is not usable by all aircraft as the avionics in most business jet and commercial aircraft do not support LP approaches at this time.

The DA is the minimum altitude to which pilots can descend to on a precision or vertically guided approach before initiating a missed approach if they do not have the required visual references to continue descending and land on the runway. The DA value is computed by FAA Terminal Instrument Procedures (TERPS) Standards (FAA Order 8260.3D) to provide the appropriate clearance to surrounding obstacles. It is a function of the Glide Path Angle (GPA), the obstacle heights, the Landing Threshold Point (LTP), the Threshold Crossing Height (TCH) and the starting point of the Obstacle Clearance Surface (OCS). The HAT or ceiling is derived by subtracting the DA elevation from the Touchdown Zone Elevation (TDZE) for the runway.

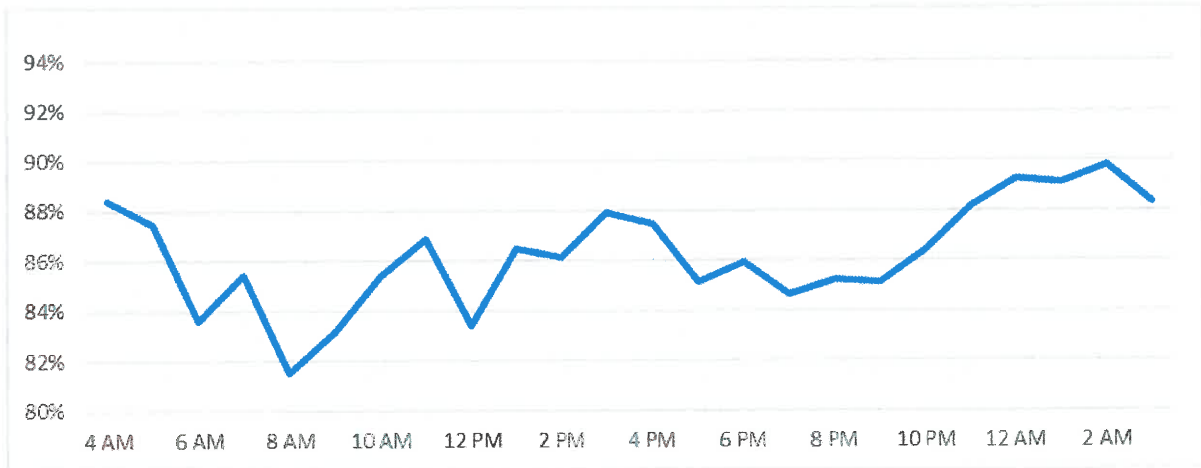
### 3. WEATHER DATA

The weather data used for this study was collected from the National Climatic Data Center (NCDC) based on the AWOS located at the airport. The dataset covers a nearly 13-year period between January 1, 2006 and February 1, 2019 with hourly observations. Hours are based on Greenwich Mean Time and all time referenced in this report has been adjusted to local winter hours (non-daylight savings time).

The data was analyzed to count the number of times minima (either ceiling or visibility) were not met. The data is also summarized by percent of time minima are met.

#### WEATHER TRENDS

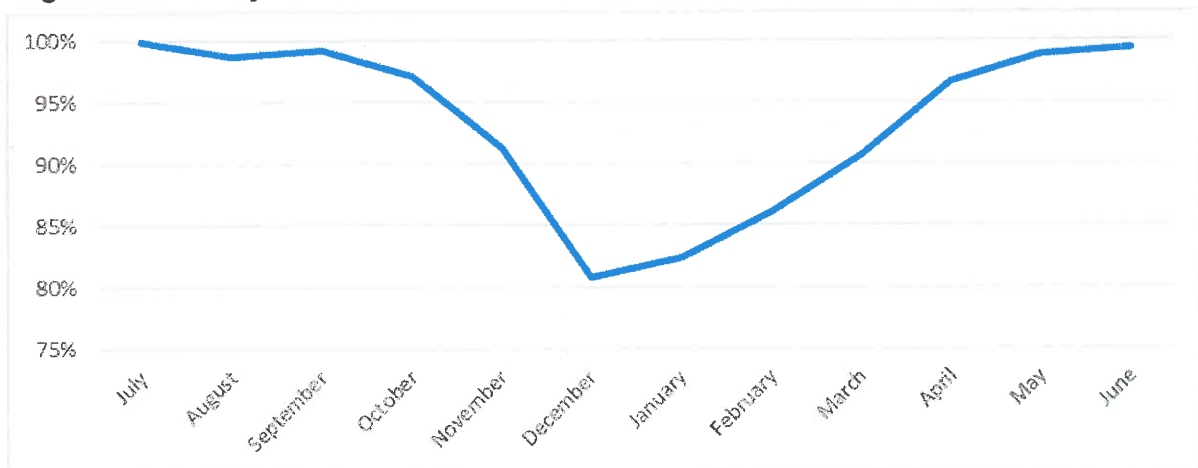
There were some obvious patterns regarding time of day as well as time of year that ceiling and visibility minima were not met. The overall hourly trends can be seen in **Figure 1**. Figure 1 shows the percent of time when minima are met for the current RNAV X LNAV approach.

**Figure 1 – Hourly Minima Trend on Percent Met Basis for 1600' and 3 Miles (2006-2019)**

Source: T-O Engineers and SUN AWOS data

As shown in Figure 1, the percent of time minima are met varies throughout the day with the lowest percent met in the morning around 8AM. At this time and in the foreseeable future, air carrier operations are anticipated to take place between the hours of 7 AM and 11 PM with arrivals starting around 10 AM.

There is also a trend when minima are not met, based on the time of year. This trend can be seen in Figure 2.

**Figure 2 – Monthly Minima Trend on Percent Met Basis for 1600' and 3 Miles (2006-2019)**

Source: T-O Engineers and SUN AWOS data

As shown in Figure 2, the percent of time minima are met varies throughout the year with the percent of time minima starting to decline in October to a low in December and then rising again until May. The worst months mirror the current bussing season of November through March.

## 4. RESULTS

**Table 1** shows the percent of time that visibility minima were met and the improvement that several potential visibility minima provide in relation to the existing visibility minima of 3 statute miles. This data is presented both annually and for the worst months of the year from November through March. This data is limited to the typical hours of aircraft operations from 6AM to 12 AM. This data does not consider cloud ceiling in the analysis.

**Table 1 – Percent Minima Met and Improvement from 3 Mile Visibility**

APPROACH	ANNUAL		NOV. - MAR.	
Visibility	Minima Met	Improvement	Minima Met	Improvement
3 mile	96.7%	-	92.8%	-
2 mile	97.7%	31.0%	94.9%	29.8%
1 3/4 mile	97.9%	37.2%	95.4%	36.0%
1 1/2 mile	98.2%	47.2%	96.1%	46.3%
1 1/4 mile	98.4%	53.3%	96.6%	52.6%
1 mile	99.0%	69.0%	97.7%	68.1%

Source: T-O Engineers and SUN AWOS data

Lowering visibility from 3 miles to 2 miles will provide nearly a 30% improvement in the time visibility minima are met during the winter and lowering from 3 miles down to 1 mile will provide a nearly 70% improvement.

Once the potential visibility improvements were understood, the analysis looked at improvement to ceiling coupled with the improvements to visibility. The existing RNAV X LNAV minima of 1600' and 3 miles were used as a basis of comparison. Like Table 1, the data is presented in **Table 2** on an annual basis along with winter months of November through March which also corresponds with the current bussing season. This data is also limited to hours of 6 AM to 12 AM.

**Table 2 – Percent Minima Met and Improvement from 1600' and 3 Miles**

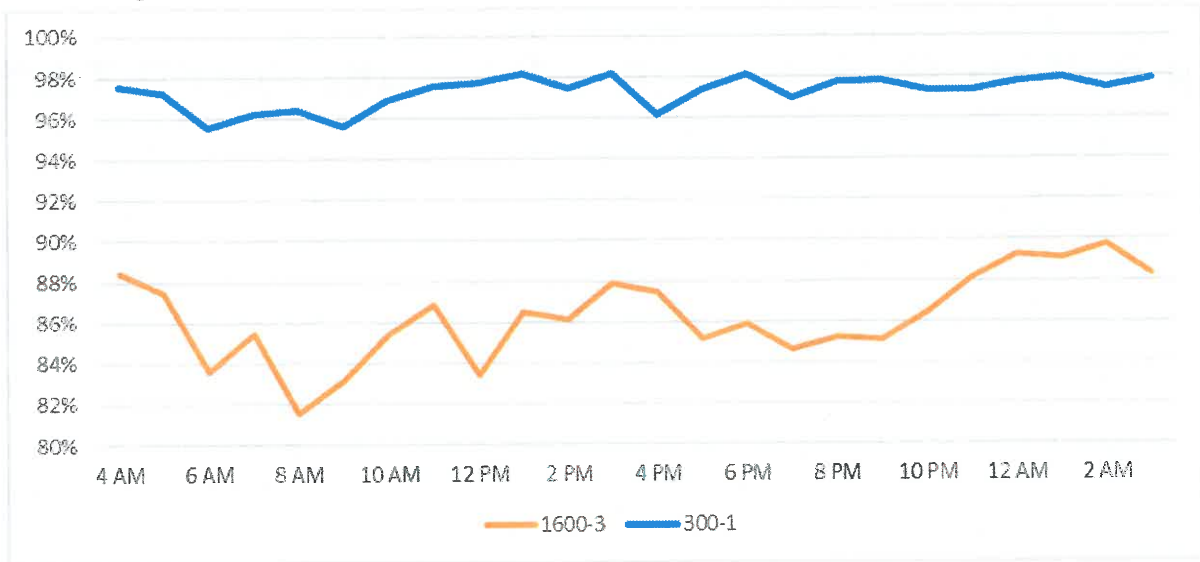
APPROACH		ANNUAL		NOV. - MAR.	
Ceiling and Visibility	Minima Met	Improvement	Minima Met	Improvement	
1600-3	94.2%	-	87.7%	-	
900-2.5	95.9%	29.6%	91.2%	28.1%	
900-2	96.4%	38.1%	92.2%	36.2%	
900-1	97.0%	48.0%	93.4%	46.5%	
700-1	97.8%	62.0%	95.1%	60.3%	
500-1	98.4%	71.7%	96.4%	70.5%	
400-1	98.5%	75.0%	96.8%	74.1%	
300-1	98.8%	79.3%	97.4%	78.4%	

Source: T-O Engineers and SUN AWOS data



Compared to current RNAV X LNAV approach minima (1600' and 3 miles) utilized by Skywest, the data indicates that lowering ceiling and visibility down to 300' and 1 mile results in a substantial improvement in reliability of 78% during the winter months, between the hours of 6:00 am and 10:00 pm. The hourly trend between minima of 1600-3 and 300-1 from November through March is shown below in **Figure 3**.

**Figure 3 – Hourly Minima Trend on Percent Met Basis for 1600-3 and 300-1**



Source: T-O Engineers and SUN AWOS data

As shown in Figure 3, reliability would improve from an average of 87% to 97% throughout the day.

It is important to note that there is not a direct correlation between the percentage of time that minima are not met and the number of diversions and cancellations that take place at SUN. The decision to divert or cancel is made by each air carrier and several factors contribute to these decisions, including forecast weather conditions (rather than actual), surface conditions of the runway due to recent snow or ice, and other airline dispatch considerations.

It is clear from the data that the lower approach minima being analyzed would result in significant improvements to reliability at SUN. It is safe to assume that these improvements would result in a corresponding decrease in the number of diversions or cancellations.