### Valley Fliers January Board Meeting

### Meeting Called to Order at: 6:31

**Present:** Eyre, Glassmyer, Botezatu, DeWitt, Neville, Vader plus 6 members and one prospective member.

### Approval of December Meeting Minutes

Alan moved to approve as written, John seconded. Motion carried unanimously.

### Treasurer's Report

Alan registered the aircraft with WSDOT. The fuel account ended and was liquidated. We had \$254 in fuel expenses that hadn't been reported to us and \$6.05 in additional adjustments. We still continue to hope to set up some kind of replacement system, but Alan hasn't yet had time to have a discussion with the bank.

See Alan's handouts. His packet included an analysis that shows we aren't flying more than we have historically. Alan noted the depreciation will need to be updated as will the insurance. Because of the discontinuation of the fuel program, fuel costs will likely lag as we wait for member fuel receipts. Alan is changing the way we account for the club's insurance expenses, he will explain this more at the annual meeting. Allan noted he will need to give better attribution for the Miscellaneous figure in the Profit and Loss comparison. Alan got most of our deposits in before the end of the month, which makes the Checking/Savings total better. Alan will once again need to ask the state for a sales tax refund. Alan will work to get a resales certificate when he gets time. John asks if Alan sees any issue with the engine? Alan asks Florin what we expect with 117? Florin and Jon say it shouldn't be a big deal, there aren't a lot of squawks and deferred maintenance. Given that, Alan says a \$50,000 engine replacement should be doable. Jon asks what the objective of the engine update is. John notes we will discuss that below.

### Maintenance Officer's Report

Florin reviewed the status without a handout.

**9MA** The interior has been cleaned. The tach issue wasn't actually a tach problem. Jon discovered a bad installation which allowed a wire to break. That broken wire connected intermittently.

**88L** Florin distributed an annual inspection summary listing squawks fixed and deferred items. The left fuel sender was replaced. The ELT transmitter was replaced. Several pulleys were replaced. The starter was also replaced with an upgraded model. Florin says the plane is in pretty good shape.

**117** Jon fixed a broken landing light. It also got an interior and exterior cleaning.

**63S** Got interior cleaning. Jon is working to fix the strobe. He has a replacement strobe. It also got new brake linings. The vacuum pump is due for an inspection. Annual is not due until May.

Florin asked if we were filing for an FAA rebate on the ADS-B. Alan says it would've only been available for one airplane, and we didn't file the paperwork in time.

Alan asked if we did the flap roller washers on 9MA and the loose rivets? Jon says not yet. The loose rivets are a big job and it isn't an urgent issue. Alan also asked about the pilot seat? Jon says it needs to be done. Florin clarified the roller washer kit needs to be purchased for 9MA? Jon says yes. Florin put it on his list for next time.

### Safety Officer's Report

John announced Randy has moved to warmer climes and stepped down. John appointed Richard Neville as the new club safety officer effective tonight. Richard notes that he read the club by-laws and noticed a need to have a proficiency / safety program. He is thinking about how / what we should do in that regard. He also pulled out all the squawks for the last year. It looks like all the safety related squawks were flagged as plane-down. He intends to review squawks on a monthly basis for safety issues. He is also considering developing criteria for categories of squawk that should definitely be flagged as plane-down; one example is very hard landings. Richard also reviewed previously mentioned ADS-B related safety concerns. Richard intends to stay aware of upcoming airspace changes. It does not appear there will be any associated with commercial service out of Paine Field, at least not initially. Richard also reviewed approach plates for Boeing field and Everett and discovered jet traffic is sometimes routed between the two below the class B airspace. Richard also discovered ADS-B is a collision advisory,

not collision avoidance system. Pilots are not allowed to maneuver solely based on ADS-B. Scott asks if anyone has had the ADS-B talk to them yet? He related that he had it audibly warn him of traffic including its relative orientation.

### Old Business

9MA Engine Scott Snider provided a stack of documents regarding the new engine. Jon notes we really don't know what it will cost until we open up the engine. Florin notes if we take the engine apart ourself we can look at how good the various pieces are before sending them out to be repaired and certified. Jon says the engine was overhauled/replaced 26 years ago. Alan asks if it is the original engine? Jon says we don't know but can check. Jon says the engine runs lower RPM, so the crank and bearings take less wear. Jon also indicates we've never found metal in the oil. John asks Jon to check on whether the engine has previously been overhauled. John asks Jon how long it would take to rebuild if we did the work ourself? Jon says about 3 weeks. Jon can get the parts magna fluxed locally. We can pre-order parts. Jon will have to send the case out of state. Alan notes the fastest would be a swap. Jon agrees. Florin asks if we should disassemble it and inspect it before we send it out? Jon says it would have to be repacked carefully. Alan asks how long it would take to send out and return the case? Jon says a minimum of three weeks. Altogether with removal, replacement, etc. it would be about 6 weeks. Scott Snider notes New Firewall Forward was 4-6 weeks, the folks in Oregon have a good reputation but will take 12 weeks. Florin notes if we send it out, we won't know whether or not to believe the shop. Several commenters note that is why we need to use reputable shops. Jon will provide the board with information about the engine history. Jon asked how much Firewall Forward was asking? \$32000 with new cylinders. Scott notes New Firewall Forward and the Oregon folks have glowing references. The rest have not provided references to check. Scott G. asks: are we agreed we will stick with 235 HP? John says yes, no one dissents. Alan notes the estimates don't include removal and replacement. Scott says that is correct.

**Social** Scott G. did more legwork regarding Emerald Downs. (Mark K. was not present) Emerald Downs would probably be a buffet with \$35.20 per head. That would be \$2250. The mock racing would cost \$350. The races would be for play money. We would have their "council room" for six hours. The council room is on the upper level. The gambling area is nearby. The council room requires a minimum \$1000 expenditure. Scott notes he isn't pushing the Downs as a venue; Longhorn BBQ would also work but doesn't allow as much socialization. Comment from the floor: could we combine it with the annual meeting? Several folks like that idea. Alan also suggests the Museum of Flight as a venue. MoF has similar costs. Scott asks who he should contact at MoF? Alan suggests we just call them. Scott notes Emerald Downs is in the club's core area and the Museum of Flight is not. Scott G. did ask about availability in February. Both the first two weekends are available. John suggests we check on availability in March.

### **New Business**

**Potential New Club Instructors** Jordon Triggs, Ian Alberts, and potential member Brian Hash. Apparently there is no checkout required. Florin notes we probably should remove some of the instructors on the list who are not often available. Others note they are still club-approved instructors. John asks for a motion to approve all three, provided Brian is accepted as a member. Scott G moved, Alan seconded, the motion carried unanimously. **Potential New Members** Brian Hash is a pilot for Alaska and used to teach at Auburn. He doesn't do a lot of training other than his family. Brian understands he cannot teach his kids in our planes unless they are also members. He is interested in buying John Pearsall's membership. John moves to accept Brian as a member. Scott G. seconded. The motion carried unanimously. Alan notes we may need to have a new-member checkout checklist

**Annual Meeting** Several dates were discussed. We are targeting the weekend of the third week of March.

Meeting adjourned at: 8:11

Free flight hour won by: Scott Snider

Next Meeting: Wednesday, February 13, 2019 @ 6:30 (Food and Social @6:00), Trotters

4:52 PM 01/09/19

**Accrual Basis** 

### Valley Fliers Sales by Item Summary

December 2018

	Dec 18			
	Qty	Amount	% of Sales	Avg Price
Service				
117 (hrs - Flight time: C-172 N-80117)	48	3,859.20	25.9%	80.40
63S (hrs - Flight time: PA-28-180F N-5163S)	14.8	1,188.18	8.0%	80.28
88L (hrs - Flight time: C-172 N-2388L)	20.2	1,487.40	10.0%	73.63
9MA (hrs - Flight time: C-182 N-759MA)	17	1,576.50	10.6%	92.74
Dues - monthly (Membership monthly dues)	59	4,425.00	29.7%	75.00
Minimum flying fee (Minimum flight fee - assessed when no flights made during the	29.5	2,367.24	15.9%	80.25
Total Service	188.50	14,903.52	100.0%	79.06
TOTAL	188.5	14,903.52	100.0%	79.06

January 2015 through December 2018

4:55 PM 01/09/19 Accrual Basis

		Jan - Dec 15	15			Jan - Dec 16	9			Jan - Dec 17	2			Jan - Dec 18	89			TOTAL		
	Oth	Amount	jo %	Avg P	Oty	Amount	jo %	Avg P	Oth	Amount	% of	Avg P	Oth	Amount	% of S	Avg	Oth	Amount	jo %	Avg
Service																				
117 (hrs - Flight time: C-172 N-80117)	171.9	10,262.70	%0.9	59.70	442	27,304.20	17.2%	61.77	385.9	25,215.36	17.6%	65.34	496.7	38,953.80	20.7%	78.43	1,496,50	101,736.06	15.4%	67.98
34H (hrs - Flight time: C-172 N-9534H)	297.5	18,030.60	10.6%	60.61	0.00	00.00	%0.0	0.00	0.00	0.00	%0.0	0.00	00.00	0.00	%0.0	0.00	297.50	18,030.60	2.7%	60.61
63S (hrs - Flight time: PA-28-180F N-5163S)	248.6	17,157.00	10.1%	69.01	209.3	13,762.00	8.7%	65.75	227.3	16,465.40	11.5%	72.44	188.8	15,489.39	8.2%	82.04	874.00	62,873.79	9.5%	71.94
88L (hrs - Flight time: C-172 N-2388L)	456.4	29,967.60	17.7%	99.59	377.7	24,316.80	15.3%	64.38	26.2	1,969.80	1.4%	75.18	318.2	24,530.04	13.0%	77.09	1,178.50	80,784.24	12.2%	68.55
9MA (hrs - Flight time: C-182 N-759MA)	321.3	27,041.23	15.9%	84.16	310.5	24,675.20	15.5%	79.47	338.1	30,545.13	21.3%	90.34	284.7	27.420.59	14.6%	96.31	1,254.60	109,682.15	16.6%	87.42
Dues - monthly (Membership monthly dues)	647.5	48,600.00	28.6%	75.06	646	48,450.00	30.5%	75.00	649	48,675.00	34.0%	75.00	686.13334	51,435.81	27.3%	74.96	2,628.63	197,160.81	29.9%	75.01
Minimum flying fee (Minimum flight fee - assess	247.2	15,473.20	9.1%	62.59	265.5	16,662.60	10.5%	62.76	275.3	19,521.57	13.6%	70.91	310.5	24,925.25	13.2%	80.27	1,098.50	76,582.62	11.6%	69.72
Total Service	2,390.40	166,532.33	98.1%	29.69	2,251.00	155,170.80	97.7%	68.93	1,901.80	142,392.26	99.4%	74.87	2,285.03	182,754.88	97.1%	79.98	8,828.23	646,850.27	98.0%	73.27
Other Charges Membership Purchase Hull Fund (Membership	7	3,196.34	1.9%	456.62	89	3,652.96	2.3%	456.62	2	60.606	%9.0	454.55	12	5,454.60	2.9%	454.55	29.00	13,212.99	2.0%	455.62
Total Other Charges	7.00	3,196.34	1.9%	456.62	8.00	3,652.96	2.3%	456.62	2.00	60.606	%9.0	454.55	12.00	5,454.60	2.9%	454.55	29.00	13,212.99	2.0%	455.62
TOTAL	2,397.40	169,728.67	100.0%	70.80	2,259.00	158,823.76	100.0%	70.31	1,903.80	143,301.35	100.0%	75.27	2,297.03	188,209.48	100.0%	81.94	8,857.23	660,063.26	100.0%	74.52

# Valley Fliers Profit & Loss YTD Comparison December 2018

_	Dec 18	Jan - Dec 18
Ordinary Income/Expense		
Income		
Sales N-80117 Flight Time N-759MA Flight Time Aircraft Hull Replacement Fund	3,859.20 1,576.50 0.00	38,953.80 27,420.59
Fees	2,367.24	5,454.60 24,925.25
Membership Monthly Dues	4,425.00	51,435.81
N-2388L Flight Time	1,487.40	24,530.04
N-5163S Flight Time	1,188.18	15,489.39
Total Sales	14,903.52	188,209.48
Total Income	14,903.52	188,209.48
Gross Profit	14,903.52	188,209.48
Expense Re-Registration Depreciation Expense Meeting Expenses	0.00 3,045.31 0.00	265.00 36,543.72 1,841.35
G&A		
Mail Services and Supplies Office Supplies	0.00	125.25
Information Technology	0.00 91.99	83.19 1,674.68
Total G&A	91.99	1,883.12
Bank Service Charges Dues and Subscriptions	0.00	0.00
Data 117	0.00	440.00
Data 9MA	0.00	440.00
Data 88L	0.00	440.00
Data 63S	0.00	440.00
<b>Total Dues and Subscriptions</b>	0.00	1,760.00
Fuel 117 Fuel	1,017.88	14 500 70
9MA Fuel	629.53	14,560.78 15,444.49
Fuel Rebate	0.00	-406.03
88L Fuel	430.59	11,738.17
63S Fuel	280.63	7,715.52
Total Fuel	2,358.63	49,052.93
Insurance Aircraft Policy	1,585.83	17,667.33
Total Insurance	1,585.83	17,667.33
Licenses and Permits		
117 Reg & Lic	0.00	5.00
Total Licenses and Permits	0.00	5.00
Miscellaneous	-119.88	0.00
Postage and Delivery Rent	0.00	94.70
N80117	248.25	2 070 00
N2388L	248.25	2,979.00 2,979.00
N759MA	248.25	2,979.00
Utilities	53.67	776.46
N5163S	248.25	2,979.00
Office Rent	163.61	1,963.32
Total Rent	1,210.28	14,655.78
Repairs & Maintenance		

### Valley Fliers Profit & Loss YTD Comparison December 2018

	Dec 18	Jan - Dec 18
117 Maintenance	1,032.44	7,426.12
9MA Maintenance	205.00	17,763.79
Aircraft oil	1,163.70	3,621.65
Maint Tax Paid	0.00	25.68
88L Maintenance	12,437.11	18,326.75
Maintenance Supplies	0.00	554.16
63S Maintenance	205.00	4,424.45
Equipment Repairs	0.00	350.00
Repairs & Maintenance - Other	0.00	506.64
Total Repairs & Maintenance	15,043.25	52,999.24
Taxes		
State	0.00	702.02
Total Taxes	0.00	702.02
Total Expense	23,215.41	177,470.19
Net Ordinary Income	-8,311.89	10,739.29
Other Income/Expense Other Income		
Interest Income	0.00	22.27
Total Other Income	0.00	22.27
Net Other Income	0.00	22.27
Net Income	-8,311.89	10,761.56

### Valley Fliers Balance Sheet Prev Year Comparison As of December 31, 2018

_	Dec 31, 18	Dec 31, 17
ASSETS		
Current Assets		
Checking/Savings		
Escrow savings account	39,717.80	39,717.80
Checking - Columbia State Bank	49,778.39	11,113.52
Total Checking/Savings	89,496.19	50,831.32
Accounts Receivable		
Accounts Receivable	18,749.88	14,228.13
Total Accounts Receivable	18,749.88	14,228.13
Other Current Assets		
Deposits - Fuel Purchases	0.00	7,500.00
Undeposited Funds	3,469.08	12,242.14
Total Other Current Assets	3,469.08	19,742.14
Total Current Assets	111,715.15	84,801.59
Fixed Assets		
N-80117 Accumulated Deprec	-26,468.28	-15,471.24
N-80117 Cessna 172M	115,879.95	110,451.95
N-759MA Accumulated Deprec.	-36,757.34	-30,053.54
N-759MA Cessna C-182Q	103,874.08	98,946.08
Operating Equipment	17,525.58	17,525.58
Accumulated Depreciation	-14,573.28	-11,517.24
N-2388L Cessna 172	152,672.29	147,244.29
N-2388L Accumulated Deprec.	-102,214.07	-93,602.99
N-5163S Piper PA-28-180F	152,919.94	147,491.94
N-5163S Accumulated Deprec.	-107,275.53	-100,099.77
Total Fixed Assets	255,583.34	270,915.06
TOTAL ASSETS	367,298.49	355,716.65
LIABILITIES & EQUITY		
Liabilities		
Current Liabilities		
Accounts Payable		
Accounts Payable	9,255.84	20,596.81
Total Accounts Payable	9,255.84	2000 2000 200
rotal ricocalito r ayabic	3,233.04	20,596.81
Other Current Liabilities		
Sales Tax Payable		
Sales Tax Paid - Maintenance	-4,077.24	-5,809.97
Taxes Paid - Fuel	-924.49	-764.96
Sales Tax Payable - Other	4,323.76	3,735.71
Total Sales Tax Payable	-677.97	-2,839.22
Total Other Current Liabilities	-677.97	-2,839.22
Total Current Liabilities	8,577.87	17,757.59
Total Liabilities	8,577.87	17,757.59
Equity		
Member Shares - Current Price	130,000.00	120,000.00
Retained Earnings	217,959.06	260,335.80
Net Income	10,761.56	-42,376.74
Total Equity		
	358,720.62	337,959.06
TOTAL LIABILITIES & EQUITY =	367,298.49	355,716.65

## Valley Fliers Statement of Cash Flows

December 2018

	Dec 18
OPERATING ACTIVITIES	
Net Income	-8.311.89
Adjustments to reconcile Net Income	,
to net cash provided by operations:	
Accounts Receivable	-1,980.55
Deposits - Fuel Purchases	4,370.42
Accounts Payable	5,656.55
Sales Tax Payable	1,502.35
Sales Tax Payable: Sales Tax Paid - Maintenance	-1,220.07
Sales Tax Payable:Taxes Paid - Fuel	-233.49
Net cash provided by Operating Activities	-216.68
INVESTING ACTIVITIES	
N-80117 Accumulated Deprec	916.42
N-759MA Accumulated Deprec.	558.65
Accumulated Depreciation	254.67
N-2388L Accumulated Deprec.	717.59
N-5163S Accumulated Deprec.	597.98
Net cash provided by Investing Activities	3,045.31
Net cash increase for period	2,828.63
Cash at beginning of period	90,136.64
Cash at end of period	92,965.27

# Valley Fliers Statement of Cash Flows

January through December 2018

	Jan - Dec 18
OPERATING ACTIVITIES	
Net Income	10,761.56
Adjustments to reconcile Net Income	10,701.00
to net cash provided by operations:	
Accounts Receivable	-4,521.75
Deposits - Fuel Purchases	7,500.00
Accounts Payable	-11,340.97
Sales Tax Payable	588.05
Sales Tax Payable: Sales Tax Paid - Maintenance	1,732.73
Sales Tax Payable:Taxes Paid - Fuel	-159.53
Net cash provided by Operating Activities	4,560.09
INVESTING ACTIVITIES	
N-80117 Accumulated Deprec	10,997.04
N-80117 Cessna 172M	-5,428.00
N-759MA Accumulated Deprec.	6,703.80
N-759MA Cessna C-182Q	-4,928.00
Accumulated Depreciation	3,056.04
N-2388L Cessna 172	-5,428.00
N-2388L Accumulated Deprec.	8,611.08
N-5163S Piper PA-28-180F	-5,428.00
N-5163S Accumulated Deprec.	7,175.76
Net cash provided by Investing Activities	15,331.72
FINANCING ACTIVITIES	
Member Shares - Current Price	10,000.00
Net cash provided by Financing Activities	10,000.00
Net cash increase for period	29,891.81
Cash at beginning of period	63,073.46
Cash at end of period	92,965.27

**N2388L:** Completed annual with a maintenance flight to check rigging including the left roll tenancy. We felt all was normal and returned the airplane to service.

- 1- Annual Signed off 12-2 annual 1-2018 at 4280.6 hours
- 2- Replaced left fuel transmitter
- 3- Rt cabin door latch checked OK
- 4- See #10
- 5- FAR 91.207(d) ELT See # 29
- 6- AD 2015-19-07 Next due at 4380.6 TAT
- 7- Lt cabin door window- Replaced rivits
- 8- Replaced aileron rod ends
- 9- **Repaired** pitch trim jack screw
- 10-Replaced front seat harness's. Trim to be installed after Christmas
- 11-R&R Rt door upper striker plate
- 12-Replaced central vacuum filter. next due at 4780.6 TAT Replaced regulator garter filter.
- 13-CW 500 hr inspection of magnetos. Next due at 4680.6 TAT
- 14-Replaced flap chaff buttons and installed chaff tape
- 15-A/C rolls left. Could not verify on maint. flt.
- 16-Temporaly installed cooling hose in transponder
- 17-Mic button requires excessive pressure--Could not duplicate
- 18-Repaired pilot door handle panel
- 19-Sealed crack in stabilizer tip
- 20-Cleaned and re-lubricated controls hinges
- 21-Lower rudder bearing wearing- MONITOR
- 22-Rt. otbd elevator bearing wearing- MONITOR
- 23-Replaced aft elevator pulley and aft pitch trim pulleys
- 24-Lt otbd aileron hinge wearing- MONITOR
- 25-Re-connected radio stack "G" strap
- 26-Replaced LMLG tire and tube. Re-packed wheel bearings
- 27-**Replaced** RMLG tire and tube. Re-packed wheel bearings
- 28- **Replaced** and broke in new brake linings
- 29-Replaced ELT transmitter
- 30-CW SEL 28-09 Electric fuel pump. NA by SN
- 31-Replaced Flap pulleys in cabin overhead.

#### Deferred Items:

Replace It and rt door window hinges(POO)

Re- glue missing VG to wing

Replace ELT transmitter mount with current design(we have the part)

Replace broken support bracket on pilot seat(POO)

Fit, trim, paint, and install harness finish trim parts

### Valley Fliers - 759MA Engine Vendor Overhaul/Upgrade Information

This is an update for 9MA's engine overhaul project. Quotes were requested from the seven engine overhaul organizations listed below. The list was developed from names provided by VF members and through an Internet search. More names can be added if requested.

- 1. Firewall Forward Loveland CO, KFNL / Tom Lawton 800-444-0556; (970) 669-6185
- 2. Penn Yan Aero, Penn Yan, NY 800-727-7230
- 3. Western Skyways Montrose CO KMTJ/ Justin Houser 800.575.9929
- 4. Texas Skyways, Boerne, TX 800-899-7597
- 5. PPonk, Camano Island, WA 360.629.4811
- 6. Premier Aircraft Engines Troutdale OR Jim 503-661-4184
- 7. Corona Aircraft Engines, Corona, CA 951.736.6452

The following is the top line estimate from each of the organizations.

- 1. Firewall Forward \$32,425 new cylinders less with OH cylinders
- 2. Penn Yann \$35,254 with new cylinders; lower cost with OH cylinders
- 3. Western Skyways \$32,160 new cylinders; \$29,913 with OH cylinders
- 4. Texas Skyways \$45,250 this is a HP increase
- 5. PPonk no quote- first available slot is May or later
- 6. Premier Aircraft Engines \$35,000; \$39,000 for Pponk conversion
- 7. Corona Aircraft Engines no response as of 21-Dec-2018

The following provides detail regarding the quotes, questions answered, notes from phone and/or email conversations held with the organizations (if any). The quotes supplied will be sent with this document. Enjoy the reading. Let me know if you have any questions.

Notes regarding these estimates.

- 1. These are only estimates (obvious, I know, but it's worth stating). 2019 may bring a price change if Continental and other part suppliers institute a price change as of 1-Jan-2019
- 2. The estimates only cover the overhaul or upgrade cost. Shipping, removal and re-installation (R&R) costs, and other potential costs may be extra. A R&R cost estimate is \$2-3000. Shipping cost estimate is \$500-1000 total, i.e., to and from overhaul shop.
- 3. R&R can be performed by some of the shops. One possible advantage of this especially the farther away shops is the return trip provides the perfect break-in opportunity, i.e., long (multi-hour), continuous, high power flight.
- 4. Some shops provide "free" shipping. This tells me the shipping cost is in the estimate.

NOTES: Below are notes regarding each of the organizations.

### FIREWALL FORWARD - Loveland, CO - KFNL - Tom Lawton 800-444-0556; (970) 669-6185

https://firewallforwardengines.com/

Tom Lawton (cell 970.420.1798) was very responsive to the quote request. Our telephone conversation lasted almost 1 hour as Tom responded to the posed questions, described their process and methods, and provided me a primer of engine overhaul plus adding useful suggestions.

The organization has been in operation since 1978

Answers from Tom for a few questions

Will the overhaul eliminate the Oil Filter Adapter AD. It can depending on the replacement oil filter adapter you select.

There are normally NO heating issues associated with this engine (especially, if we repair/update the baffling at the time of the overhaul). If the engine is running hot now, it could be due to the current state of the baffling.

The tighter tolerances to which the engine is overhauled can increase the HP. An oil cooler change may be necessary though unlikely.

Use current prop? Yes with normal OH; Pponk requires new prop

PPonk upgrade can be performed by FF

Cowl mods for 3 blade prop? Not necessarily though Pponk mod requires mod for engine

New or service limits? New or better because Continental's new tolerances are loose, e.g. +/- 14g for piston to piston weights. FF uses much tighter tolerances, e.g., .25g - .5g. FF also matches cylinder displacements for opposing cylinders because the "same" cylinders can have slightly different displacements. Tight tolerances create a much smoother running engine.

Recommend Superior Millennium cylinders

If Firewall Forward performs the R&R the cost is approx.. \$2500 (9MA is flown to CO for the work)

Time frame 4 weeks

Warranty: 2yr 100% or 500 hrs; all engine parts to the pro-rated; cover cost at location where issue occurs

Break-in period of at least 25 hours. This time is critical in an engine's life. High power, longer continuous operating runs. If 759MA was flown to FF to perform the work the trip home would provide an excellent long stretch to begin the break-in period.

Tom also wrote, "When you're ready, we can send a truck for the engine, or pickup/deliver the aircraft (no charge, except for travel expenses)"

### **TEXAS SKYWAYS** - Boerne, TX 800-899-7597

https://www.txskyways.com/

Texas Skyways provided three quotes: 1) U470 – 250hp, 2) U520 – 280hp, 3) U550 – 285hp. The latter two are for those who like to dream!

Questions answered by the Texas Skyways IA:

Same engine mount – yes for the 470 and 520, different for 550

Oil filter AD is not eliminated (editorial comment: this seems odd to me – maybe there is a misunderstanding)

No heating issues with any of the engine choices – make sure baffling is good... that's the key

A 3-balde prop should be used with all the engine upgrades

No cowl mods for 3 blade prop

New limits on engine overhaul specs

Suggests TCM cylinders are all close to tolerance – doesn't believe match is necessary

Pistons are balanced by manufacturer – doesn't believe there is any need to balance these pistons because only turning 2700RPM max

Six weeks estimate for work

### PPONK - Camano Island, WA 360.629.4811

No quote. They're booked until May at the earliest. They provided an authorized shop STC list. https://pponk.com/

#### PREMIER AIRCRAFT – Troutdale, OR Jim 503-661-4184

Website is very basic, i.e., it doesn't provide any useful information other than the phone number.

https://www.premieraircraft.net/

Very responsive to quote request – 24 hours

PPONK authorized.

They don't remove and re-install engines, i.e., no R&R.

No Oregon sales tax.

The following is Jim's response to the engine mount question:

### CORONA AIRCRAFT ENGINES - Corona, CA

No response by email or phone as of Friday 21-DEC

https://www.coronaengines.com/

I'd like to tell you about this company but with no response from them I have no data on which to say much except they didn't respond... which may say something. The website is pretty, though.