



RECORD OF CONVERSATION

Michael J. Hodges
Air Safety Investigator
Central Regional Office
Office of Aviation Safety
National Transportation Safety Board

Date: 09/02/2020
Person Contacted: Madeline Walker (Daughter of the accident pilot,
David Walker)
NTSB Case Number: CEN20LA370

Narrative:

The following is a synopsis of the information provided by Madeline Walker to the NTSB investigator-in-charge, via a telephone conversation.

- On Sunday, 08/30/2020 (the day of the accident), her father and mother flew from Caddo Mills, Texas, to Bryan, Texas, to take their daughter (Madeline's sister) and her boyfriend up for a joyride flight.
- On Saturday, 08/29/2020, her father picked up the airplane from the maintenance shop and flew it Caddo Mills, Texas.
- On Friday, 08/28/2020, her father worked that day.
- On Thursday, 08/27/2020, her father worked that day.
- Her father did not use alcohol.
- Her father drank 1-2 cups of coffee a day.
- Her father used regular tobacco dip pouches.
- Her father took a daily allergy pill.
- Her father did not use illegal drugs.
- Her father did not have any major stress issues in his life.
- Her father did not have any sleep issues.
- Her father did not have any medical conditions.
- Her father never reported any concerns with flying or with the airplane.

MAINTENANCE & SERVICE HISTORY

Date	Total Propeller Time	Time Since Overhaul	Description of Work	Authorized Signatures Repairman and Station Certificate Numbers
4-18-2016	57.8	Tach 3287.6	I Certify That I have Inspected this Prop in Accordance With Annual Inspection And Found to Be in an Airworthy Condition.	[Redacted] A&P/IA [Redacted]

MAKE	McCauley	MODEL	B3D32C412-C	SERIAL #	090883
AIRCRAFT	N7469P	PROP TOT TIME	60.49	TACH TIME	3313 39
DATE	09/29/2018	ACFT TOT TIME	3313.39	TS NEW	60 49

Blade Model G-82NDA-5, Hub Serial Number 090883, Blade 1 ADK26075, Blade 2 ADK 26076, Blade 3 ADK26077.
 I certify that this PROPELLER has been inspected IAW A 100 Hour inspection and found to be in an AIRWORTHY
 condition. Inspected IAW the scope and detail of Part 43 Appendix D using a Piper Service Manual for reference. Engine
 ground ran, no defects noted. See AD summary for compliances.

Michael R. Hall [Redacted] A&P/IA # [Redacted]

Note: Enter Compliance With All Applicable FAA A.D. & Factory Service Bulletins On Pages 11 & 12

MAKE	Mc
AIRCRAFT	N
DATE	0

Blade Model G-82NDA
 I certify that this PROP
 condition. Inspected IA
 ground ran, no defects
 Mich

MAKE	McCauley	MODEL	B3D32C412-C	SERIAL #	090883	
AIRCRAFT	N7469P	PROP TOT TIME	65.88	TACH TIME	3318	78
DATE	09/11/2018	ACFT TOT TIME	3318.78	TS NEW	65	88

Blade Model G-82NDA-5, Hub Serial Number 090883, Blade 1 ADK26075, Blade 2 ADK 26076, Blade 3 ADK26077. I certify that this PROPELLER has been inspected IAW A 100 Hour inspection and found to be in an AIRWORTHY condition. Inspected IAW the scope and detail of Part 43 Appendix D using a Piper Service Manual for reference. Engine ground ran, no defects noted. See AD summary for compliances.

Michael R. Hall

A&P/IA #

Note: Enter Compliance With All Applicable FAA A.D. & Factory Service Bulletins On Pages 11 & 12

ATIONS
NUMBER OF
C ENTRIES.)

DATE	RECORDING TACH TIME	TODAYS FLIGHT	TOTAL TIME IN SERVICE	DESCRIPTION OF INSPECTIONS, TESTS, REPAIRS AND ALTERATIONS ENTRIES MUST BE ENDORSED WITH NAME, RATING AND CERTIFICATE NUMBER OF MECHANIC OR REPAIR FACILITY. (SEE BACK PAGES FOR OTHER SPECIFIC ENTRIES.)
19__				

MAKE	Lycoming	MODEL	I0-540-A1D5	SERIAL #	L-4037-40
AIRCRAFT	N7469P	ENG TOT TIME	3313.39	TACH TIME	3313 39
DATE	09/29/2018	ACFT TOT TIME	3313.39	TSMOH	1413 39

I certify that this ENGINE has been inspected IAW A 100 Hour inspection and found to be in an AIRWORTHY condition. Inspected IAW the scope and detail of Part 43 Appendix D using a Piper Service Manual for reference. Cylinder compressions as follows: 1) 74/80 2) 70/80 3) 74/80 4) 73/80 5) 68/80 6) 78/80. Magnetos sent to Velocity Shoppe, El Reno, OK for IRAN Work order no. 297639. Reinstalled and timed magnetos. Drained oil replaced filter with Champion CH48110-1 filter, serviced engine with Aeroshell 15W50 oil. Replaced cylinder oil return hoses, Replaced cylinder intake hoses and gaskets. Removed exhaust tubes, cleaned exhaust flange area, reinstalled Blo-proof gaskets. Engine ground ran, no defects noted. See AD summary for compliances. Work done by owner Jerrod Blevins.

Michael R. Hall

A&P/IA #

MAKE	Lycoming	MODEL	0-540-A1D5	SERIAL #	L-4037-40
AIRCRAFT	N7469P	ENG TOT TIME	3318.78	TACH TIME	3318 78
DATE	09/11/2018	ACFT TOT TIME	3318.78	TSMOH	1418 78

I certify that this ENGINE has been inspected IAW A 100 Hour inspection and found to be in an AIRWORTHY condition. Inspected IAW the scope and detail of Part 43 Appendix D using a Piper Service Manual for reference. Cylinder compressions as follows: 1) 76/80 2) 77/80 3) 70/80 4) 78/80 5) 68/80 6) 76/80. Drained oil replaced filter with Tempest AA48110-2 filter, serviced engine with Aeroshell 15W50 oil, and Camguard additive. Engine ground ran, no defects noted. See AD summary for compliances. Work done by owner Jerrod Blevins.

Michael R. Hall

A&P/IA #

DATE
19

DATE	TOTAL TIME IN SERVICE
19	

Reference of Major Repairs and Major Alterations To
 FAA Form ACA-337 by Date, or to the Work Order by Number and the Approving Agency

MAKE	Piper	MODEL	PA24-250	SERIAL #	24-2660
AIRCRAFT	N7469P	ENG TOT TIME	3313.39	TACH TIME	3313 39
DATE	09/29/2018	ACFT TOT TIME	3313.39	TSMOH	1413 39

I certify that this AIRFRAME has been inspected IAW an Annual inspection and found to be in an AIRWORTHY condition. Inspected IAW the scope and detail of Part 43 Appendix D using a Piper Service Manual for reference. Complied with ELT functional test FAR 91.207 (d), batteries due replacement Nov. 2020. Complied with AD 68-13-03R1 Fuel tank, caps and sender inspection, no defects noted, next due, tach 3413.39. Complied with AD 75-12-06 Fin Forward Spar inspection, next due tach. 3413.39. Complied with AD 76-07-12 Bendix switch test. Complied with per item (1) (a) (b and (c) no defects noted. Next due tach. 3413.39. Complied with AD 77-13-21 landing gear bungees by replacement of bungees, next due 9/2021 or tach. 8313.39. Complied with AD 77-08-01 Aileron spar inspection per SL 787. Replaced aileron attach and rod end bolts with new. Next due at tach. 3413.39. Complied with AD 79-20-10 Aileron nose bulkhead crack inspection per SL850, no defects noted, next due at tach. 3413.39. Complied with AD 94-13-10 Hi-Shear rivet inspection, no defects noted, next due tach. 3413.39. Aircraft ground ran, no defects noted. See AD summary for compliances. Work done by owner Jerrod Blevins.

Michael R. Hall

A&P/IA #

MAKE
AIRCRAFT
DATE

I certify th
condition.
with ELT
inspection
94.61 ho
Next due
AD 77-0
bulkhead
due tach
Replace
done by

MAKE	Piper	MODEL	PA24-250	SERIAL #	24-2660
AIRCRAFT	N7469P	ENG TOT TIME	3318.78	TACH TIME	3318 78
DATE	08/11/2020	ACFT TOT TIME	3318.78	TSMOH	1418 78

I certify that this AIRFRAME has been inspected IAW an Annual inspection and found to be in an AIRWORTHY condition. Inspected IAW the scope and detail of Part 43 Appendix D using a Piper Service Manual for reference. Complied with ELT functional test FAR 91.207 (d), batteries due replacement Nov 2020. AD 68-13-03R1 Fuel tank, caps and sender inspection, next due, tach 3413.39 in 94.61 hours. AD 75-12-06 Fin Forward Spar inspection, next due tach. 3413.39 in 94.61 hours. Complied with AD 76-07-12 Bendix switch test. Complied with per item (1) (a) (b and (c) no defects noted. Next due tach. 3418.78. AD 77-13-21 landing gear bungees by replacement of bungees, next due 9/2021 or tach. 8313.39. AD 77-08-01 Aileron spar inspection per SL 787, next due at tach. 3413.39 in 94.61 hours. AD 79-20-10 Aileron nose bulkhead crack inspection per SL850, next due at tach. 3413.39 in 94.61 hours. AD 94-13-10 Hi-Shear rivet inspection, next due tach. 3413.39 in 94.61 hours. AD 2012-17-06 due initial inspection IAW item (g)(1) of the AD by Sept. 30, 2020. Replaced vacuum regulator filter B3-5-1. Aircraft ground ran, no defects noted. See AD summary for compliances. Work done by owner Jerrod Blevins.

Michael R. Hall

A&P/IA #

[illegible]

2020 DATE	AIRCRAFT MAKE & MODEL	AIRCRAFT IDENT.	POINTS OF DEPARTURE & ARRIVAL		REMARKS, PROCEDURES, MANUEVERS	NO. INSTR. APP.	NO. LDG.
			FROM	TO			
3/11	C-172	25117	7F3	7F3	C-172 Practice Stalls, Slow Flight, Steep Turns, Lazy 8s Landings & Power Off 180's [REDACTED] CFII [REDACTED] 3/22		4
3/21	C-172	25117	7F3	7F3	Lazy 8's Chandelle's Power Off 180's [REDACTED] CFII [REDACTED] 3/22		6
5/14	C-172	25117	7F3	7F3	Flight Review per 61.56 & Commercial Manors [REDACTED] CFII [REDACTED] 3/22		5
5/17	C-172	25117	7F3	7F3	PRICU		1
5/19	C-172	25117	7F3	7F3	Commercial Manors RNAV Approaches [REDACTED] CFII [REDACTED] 3/22	1	1
7/26	PA28R-180	7459J	2F7 304	2F7	Complex Time [REDACTED] CFII [REDACTED] 3/22		2
7/28	PA28R-180	7459J	2F7 KDUC	KGVT 2F7	Complex Procedures Intro to IFR Procedures [REDACTED] CFII [REDACTED] 3/22		2
I certify that the statements made by me on this form are true. PILOT'S SIGNATURE _____						PAGE TOTAL	1 21
						AMT. FORWARD	29 644
						TOTAL TO DATE	30 665

AIRCRAFT CATEGORY				CROSS-COUNTRY		CONDITIONS OF FLIGHT								SIMULATOR		TYPE OF PILOTING TIME						TOTAL DURATION OF FLIGHT			
AIRPLANE SEL		AIRPLANE MEL				DAY		NIGHT		ACTUAL INSTRUMENT		SIMULATED INSTRUMENT				DUAL RECEIVED		PILOT-IN-COMMAND							
		1	3			1	3								1	3					1	3			
		1	3			1	3								1	3					1	3			
		1	4			1	4								1	4					1	4			
		8				8											8				8				
		1	2			1	2					4			1	2	12				1	2			
		3	9			3	9					2	0		3	9	39				3	9			
		3	0			3	0				0	2			3	0	30				3	0			
		1	2	9		1	2	9			0	2	2	4		1	2	1	8	9		1	2	9	
		1	9	6	6	1	9	2	1	8	1	0	0	7	9	0	2	1	6	5		1	8	8	2
		2	0	9	5	1	9	2	1	9	3	9	7	9	0	2	1	8	9			2	0	1	1

DATE TO 2000	AIRCRAFT MAKE & MODEL	AIRCRAFT IDENT.	POINTS OF DEPARTURE & ARRIVAL		REMARKS, PROCEDURES, MANUEVERS	NO. INSTR. APP.	NO. LDG.
			FROM	TO			
8/2	PA28R-180	7459J	2F7	11R KGVT 2F7	IFR Procedures [redacted] CFII [redacted] 722		3
8/22	PA24-250	7469P	304	F6B-F00-357 7F3			4
8/22	PA24 250	7469P	357	7F3 357 7K3			2
8/23	PA24 250	7469P	7F3	76F	MAINTENANCE		1

I certify that the statements made by me on this form are true.

PILOT'S SIGNATURE _____

PAGE TOTAL

AMT. FORWARD

TOTAL TO DATE

[illegible]

FLIGHT REVIEW & INSTRUMENT COMPETENCY ENDORSEMENTS

I certify that Mr./Ms. David Walker

has satisfactorily completed the flight review required by FAR ¶61.56. Cessna 172

SIGNED [REDACTED] DATE 12-27-16

CFI NO. [REDACTED] EXPIRATION DATE 6/17

I certify that Mr./Ms. David Walker

has satisfactorily completed the flight review required by FAR ¶61.56.

SIGNED [REDACTED] DATE 5-14-2020

CFI NO. [REDACTED] EXPIRATION DATE 3-31-2022

I certify that Mr./Ms. _____

has satisfactorily completed the flight review required by FAR ¶61.56.

SIGNED _____ DATE _____

CFI NO. _____ EXPIRATION DATE _____

I certify that Mr./Ms. _____

has satisfactorily completed the instrument competency check required by FAR ¶61.57(e)(2).

SIGNED _____ DATE _____

CFI NO. _____ EXPIRATION DATE _____

I certify that Mr./Ms. _____

has satisfactorily completed the instrument competency check required by FAR ¶61.57(e)(2).

SIGNED _____ DATE _____

CFI NO. _____ EXPIRATION DATE _____

I certify that Mr./Ms. _____

has satisfactorily completed the instrument competency check required by FAR ¶61.57(e)(2).

SIGNED _____ DATE _____

CFI NO. _____ EXPIRATION DATE _____

MEMORANDA

I have given Mr. David Walker the instruction required by FAR 61.87(m) and find him competent to make solo flight in a C150. 5/27/98 [REDACTED] CFI 4/00
I have given Mr. David Walker the instruction required by FAR 61.87(1) and find him competent to conduct solo flights safely in a Cessna 172. Date 5-23-98 [REDACTED] CFI 03/00

5-6-99

Mr. DAVID WALKER, Certificate no. [REDACTED], has satisfactorily checked out in the systems and flight characteristics of a PA-28-151 (WARRIOR). [REDACTED] CFI 11/99

MEMORANDA

1-26-00

I HAVE GIVEN DAVID WALKER FLIGHT INSTRUCTION IN A COMPLEX
AIRCRAFT AND FIND HIM COMPETENT TO ACT AS PIC IN COMPLEX AIRCRAFT

CFI

09/01

From: [REDACTED]
To: [REDACTED]
Subject: Re: CEN20LA370 (N7469P) - Weight and Balance Numbers/Performance Calculations
Date: Monday, July 19, 2021 12:33:01 PM
Attachments: [image002.png](#)
[W&B Calculation - N7469P.pdf](#)
[OH Take-off Perf Chart with Estimate.pdf](#)

[CAUTION] This email originated from outside of the organization. Do not click any links or open attachments unless you recognize the sender and know the content is safe.

Mike,

Attached is a W&B calculation for N7469P prior to the accident.

(I estimated the fuel quantities based on the fuel gauge indications shown in the passengers SnapChat photo prior to the accident.)

Also attached is a Take-Off performance graph showing the take-off distance with a 3,200' Density Altitude at Gross Weight (worst case). (Performance chart is from the Owner's Handbook, p/n 753-570.)

Let me know if you need anything else.

Best regards,

Jon



Jonathon Hirsch | Air Safety Investigator
[REDACTED] | www.piper.com

Piper Aircraft, Inc., 2926 Piper Drive, Vero Beach, FL 32960

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From: Hodges Michael [REDACTED]
Sent: Monday, July 19, 2021 7:28:29 AM
To: Hirsch, Jonathon
Subject: Re: CEN20LA370 (N7469P) - Weight and Balance Numbers/Performance Calculations

No worries. Thank you.

Mike

Mike J. Hodges, MS, CHP
Air Safety Investigator
National Transportation Safety Board

4760 Oakland Street, Suite 500
Denver, Colorado 80239-2793

Cellular/SMS: [REDACTED]
Facsimile: [REDACTED]
Response Operations Center (24/7): 1-844-373-9922

“We always need to prepare ourselves for handling the unexpected.” — Neil A. Armstrong

From: Hirsch, Jonathon [REDACTED]
Sent: Monday, July 19, 2021 7:22:17 AM
To: Hodges Michael [REDACTED]
Subject: Re: CEN20LA370 (N7469P) - Weight and Balance Numbers/Performance Calculations

[CAUTION] This email originated from outside of the organization. Do not click any links or open attachments unless you recognize the sender and know the content is safe.

Hey Mike,
I was traveling last Friday and for some reason didn't see your email until this morning.
I'll look into this as soon as I have a chance.

Best regards,
Jon



Jonathon Hirsch | Air Safety Investigator
[REDACTED] www.piper.com
Piper Aircraft, Inc., 2926 Piper Drive, Vero Beach, FL 32960

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From: Hodges Michael [REDACTED]
Sent: Friday, July 16, 2021 5:04:34 PM
To: Hirsch, Jonathon
Subject: CEN20LA370 (N7469P) - Weight and Balance Numbers/Performance Calculations

Hi Jon,

Hope you are doing well.

I have a request for CEN20LA370 (N7469P) please.

- A. Are you able to run the weight and balance numbers for the accident, based off the information we have?

I have attached the weight and balance summary from the maintenance records. Here are the occupant's weights:

Pilot (seat #1): David Eric Walker (54) – weight = 248lbs

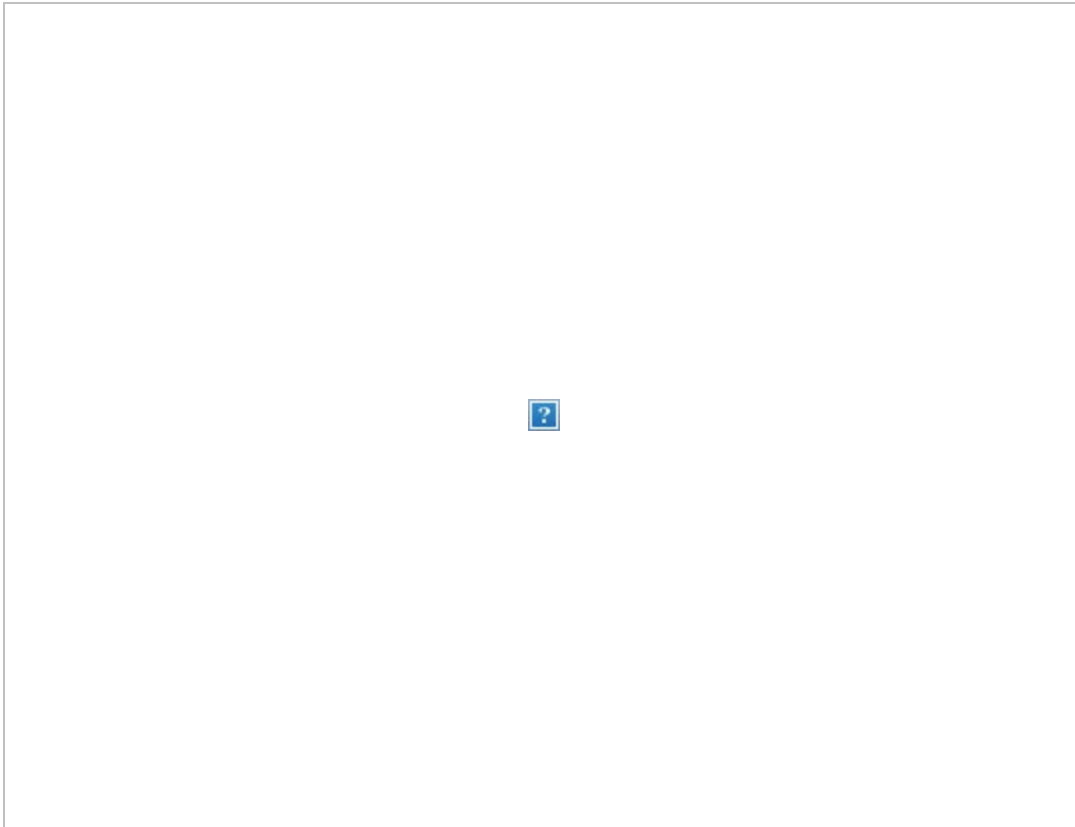
Passenger (seat #2): Victoria Walker (21) – daughter of pilot – weight = 192lbs

Passenger (seat – right rear): Tammy Walker (51) – wife of pilot – weight = 193lbs

Passenger (seat – left rear): Luke Armstrong (22) – boyfriend of Victoria – weight = 190lbs

I guess the only undetermined with the weight and balance is the exact amount of fuel onboard at takeoff?

- B. Are you able to run any takeoff performance numbers, with what we know for the weight and balance (also taking into consideration the OAT and DA)? For the OAT looks like it was 95° F with a calculated DA of 3,205 ft (if I'm looking at this right):



Thank you again. Have a good weekend.

Mike

Mike J. Hodges, MS, CHP
Air Safety Investigator
National Transportation Safety Board

4760 Oakland Street, Suite 500
Denver, Colorado 80239-2793

Cellular/SMS: [REDACTED]

Facsimile [REDACTED]

Response Operations Center (24/7): 1-844-373-9922

"We always need to prepare ourselves for handling the unexpected." – Neil A. Armstrong

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GENERAL WEIGHT AND BALANCE CHART

For Reference see the aircraft POH and FAA -H-8083-1A

ITEM	WT. (LBS.)	ARM (IN.)	MOMENT (IN. LBS.)
BASIC AIRPLANE	1750.8	81.81	143238.70
PILOT'S SEAT	248.0	84.80	21030.40
COPILOT'S SEAT	192.0	84.80	16281.60
SEAT NO. 3	190.0	118.50	22515.00
SEAT NO. 4	193.0	118.50	22870.50
OIL (3 gal)	23.0	28.00	644.00
FUEL GAL. (Main - Inboard Tanks)	81.0	90.00	7290.00
FUEL GAL. (AUX - Outboard Tanks)	121.5	95.00	11542.50
BAGGAGE AFT		142.00	0.00
TOTAL WEIGHT	2799.3	CG 87.67	TOTAL MOMENT 245412.70

Fuel quantity indicators from Seat #2 Snap Chat picture				
Max capacity	Approx. Needle Indication		Approx Qty. (gal)	Approx. Wt.
15	Left Aux	0.6	9.00	54
30	Left Main	0.25	7.50	45
30	Right Main	0.2	6.00	36
15	Right Aux	0.75	11.25	67.5

W&B details for N7469P prior to accident on 08-30-2020:

Aircraft Empty Weight from W&B record dated July 19, 2010

Pilot and passenger weights from NTSB-IIC

Oil from Owner's Handbook

Fuel estimated from seat #2 passenger photo prior to takeoff (see table above).

Weight and Balance Summary

July 19, 2010

Aircraft: Piper PA24-250
N7469P
S/N:24-2660

Prior Empty Weight: 1749.20
Prior Longitudinal C/G Moment: 143222.40
Prior Arm (CG): 81.88
Maximum Weight: 2900

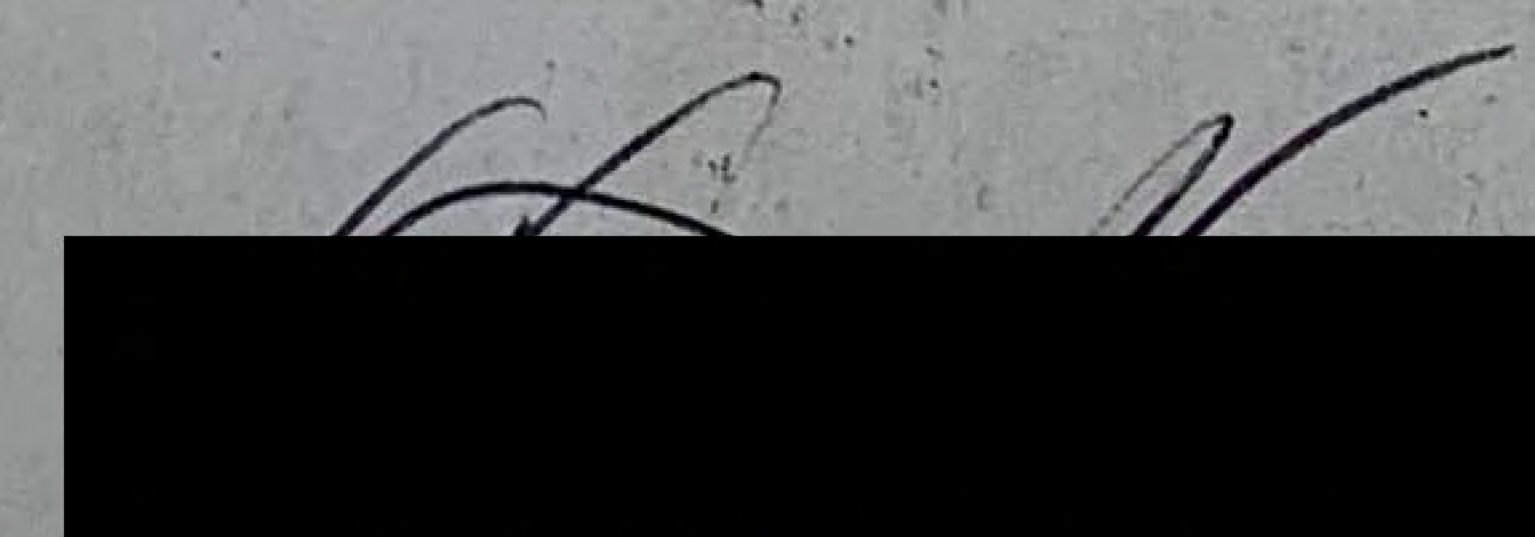
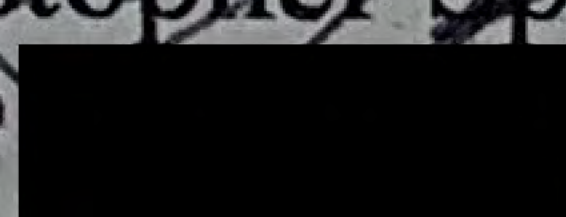
Changes:

Description	Weight (lbs)	Arm	Moment
Removed Hartzell Propeller	-63.0	-1.5	94.50
Removed Hartzell spinner and bulkhead	-3.0	-1.5	4.50
Removed Woodward propeller governor	-5.0	-10.0	50.00
Installed McCauley propeller B3D32C412	69.8	-1.5	-104.70
Installed McCauley Propeller Governor DC290D1/T34	2.8	-10	-28.00

New Weight & Balance Information:

New Empty Weight: 1750.8
New Longitudinal Moment: 143238.70
New Arm (CG): 81.82
New Useful Load: 1149.20

This weight and balance supersedes all others.


Christopher Springer
A&P  IA

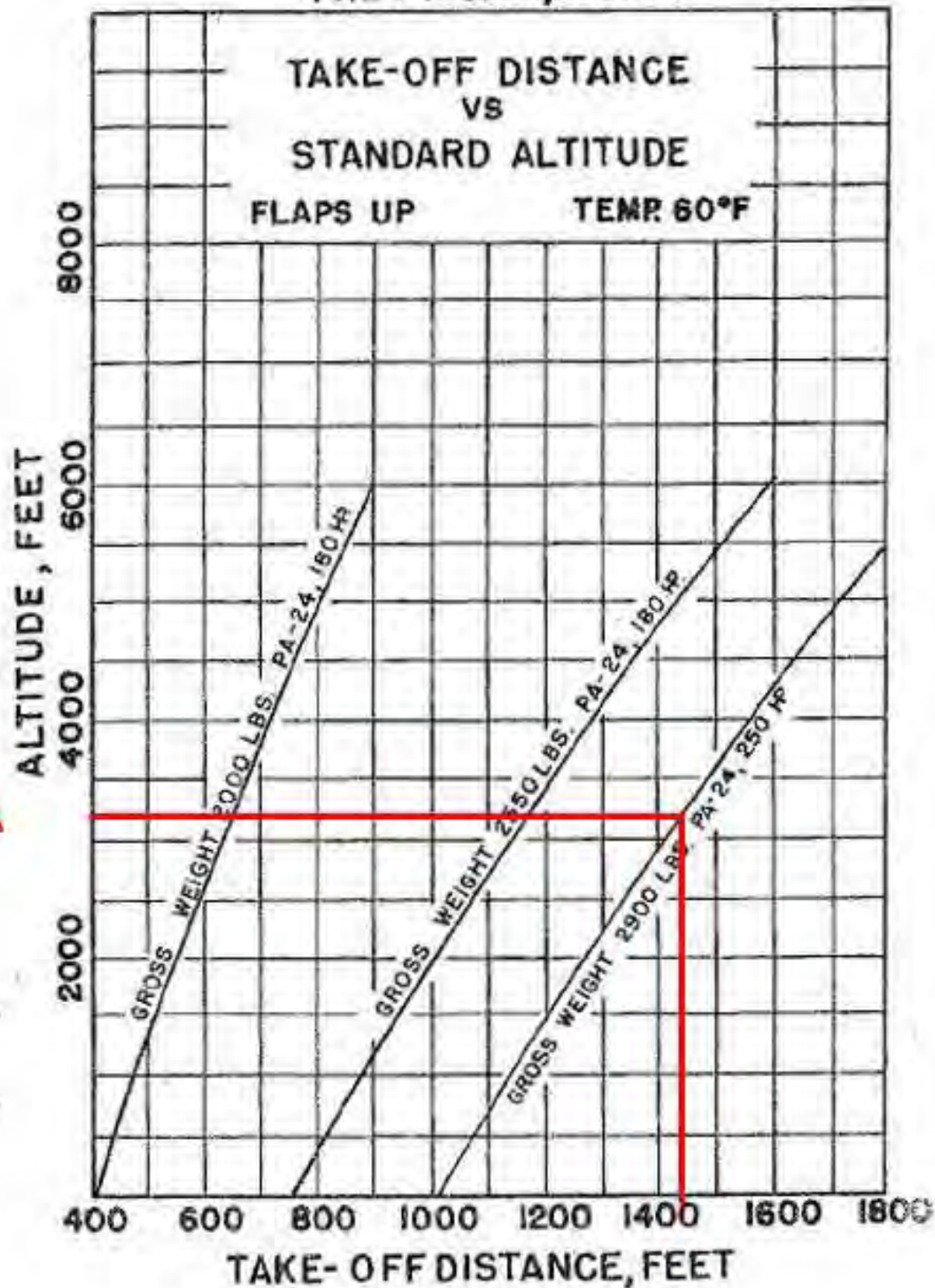
DESIGN FEATURES

1. Specifications:

	PA-24 180	PA-24 250
Engine -----	Lyc. O-360-A	Lyc. O-540-A1A5
HP and RPM -----	180 at 2700	250 at 2575
Gross Weight (Lbs.) -----	2550	2900
Empty Weight (Standard) (Lbs.) -----	1510	1630
Useful Load (Lbs.) -----	1040	1270
Empty Weight (Custom) (Lbs.) -----	1550	1670
Useful Load (Custom) (Lbs.) -----	1000	1230
Empty Weight (Super Custom) (Lbs.) -----	1575	1720
Useful Load (Super Custom) (Lbs.) -----	980	1180
Wing Span (Ft.) -----	36	36
Wing Area (Sq. Ft.) -----	178	178
Length (Ft.) -----	24.7	24.9
Height (Ft.) -----	7.3	7.3
Propeller Diam. (Max. In.) -----	74	77
Power Loading (Lbs. per HP) -----	14.2	11.2
Wing Loading (Lbs. per Sq. Ft.) -----	14.3	15.7
Baggage Capacity -----	200	200
Fuel Capacity (Standard, Gals.) -----	50	60
Fuel Capacity (With Reserve Fuel, Gals.) -----	60	90
Tire Pressure (Lbs.) -----	Nose 27, Main 27	Nose 27, Main 42
Wheel Base (Ft.) -----	6.5	6.5
Wheel Tread (Ft.) -----	9.8	9.8
Top Speed (MPH) -----	167	190
Cruising Speed -----		
(75% Power, Sea Level, MPH) -----	150	171
Optimum Cruising Speed -----		
(75% Power, Optimum Alt.) -----	160	181
Stalling Speed (Flaps Down, MPH) -----	61	65
Take-off Run (Ft.) -----	750	1000
Landing Roll (Flaps Down, Ft.) -----	600	650
Best Rate of Climb Speed (MPH) -----	96	95
Rate of Climb (Ft. per Min.) -----	910	1350
Service Ceiling (Ft.) -----	18,500	20,000
Absolute Ceiling (Ft.) -----	21,000	22,000
Fuel Consumption -----		
(Gal. per Hr., 75% Power) -----	10	14
Cruising Range -----		
(75%, Sea Level, Std. Fuel) -----	5 Hrs., 750 Mi.	4.3 Hrs., 740 Mi.
Cruising Range, Optimum (Std. Fuel) -----	6.2 Hrs., 920 Mi.	7.5 Hrs., 1100 Mi.
Cruising Range -----		
(75%, Sea Level, Reserve Fuel) -----	6 Hrs., 900 Mi.	6.4 Hrs., 1100 Mi.
Cruising Range, Optimum (Reserve Fuel) -----	7.5 Hrs., 1100 Mi.	11.2 Hrs., 1650 Mi.

Performance figures are for Custom airplanes flown at gross weight under standard conditions at sea level, or stated altitude. Any deviation from Custom equipment may result in changes in performance.

PIPER COMANCHE
PA24 180 H.P., 250 H.P.



~3,200' DA