

Cawthra Joshua

From: Shane Sullivan [REDACTED]
Sent: Thursday, August 3, 2017 4:01 PM
To: Cawthra Joshua
Subject: Re: WPR17FA101 - Pilot Operating Handbook - Public Docket

Approved as request

Thanks
Josh

Sent from my iPhone

On Aug 3, 2017, at 3:59 PM, Cawthra Joshua [REDACTED] wrote:

Shane,

I would like to use the attached excerpts from the Icon A5 POH (pages 1-4, 2-3, 5-2, 5-3, 5-4, 5-5, and 5-9) within the public docket. Due to the statement on page II, I will need permission from Icon Aircraft to do so. If you have any questions, please feel free to call me.

Thanks.

Josh

Joshua Cawthra
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[REDACTED]

1.3 SUMMARY OF PERFORMANCE SPECIFICATIONS

Parameter	Value
Gross Weight	1510 lb _f
V _H (top speed at SL at max continuous power, 5500 RPM)	95 KCAS
Cruise Speed, 5000 RPM, 8000 ft	84 KTAS
Range, 5000 RPM, 8000 ft (including takeoff and climb from SL)	427 nm (with 45 min reserve)
Rate of Climb, V _X at SL	616 ft/min
Rate of Climb, V _Y at SL	629 ft/min
V _X , Flaps at 0°	54 KIAS
V _X , Flaps at 15°/30°	50 KIAS
V _Y	58 KIAS
V _S	45 KIAS
V _{SO}	39 KIAS
Total Fuel Capacity	20.2 US gallons
Total Usable Fuel	20 US gallons
Approved Types of Fuel	Unleaded automotive fuel with up to 10% maximum ethanol content meeting ASTM D4814 with minimum RON 95 (minimum Anti-Knock Index 91) Grade 100LL aviation gasoline (AVGAS) meeting ASTM D910
Max Engine Power at SL	100 hp at 5800 RPM (5 min max)
Max Demonstrated Direct Crosswind Component – Land and Water (not a limitation)	12 knots
Service Ceiling at Gross Weight With 100 ft/min Climb Rate	15,000 ft

2.2 AIRSPEED LIMITATIONS

CHAPTER 2

	Speed	KIAS	Remarks
V_{S0}	Stall Speed, MTOW, Flaps 30°	39	Idle power
V_S	Stall Speed, MTOW, Flaps 0°	45	Idle power
V_{FE} and V_{LE}	Maximum Flap and Landing Gear Extended Speed	75	Operation and extended speeds are the same.
V_{O-min}	Operating Maneuvering Speed, 1145 lb _f , Min Flight Weight	76	Do not make full or abrupt control movements above this speed.
V_{O-max}	Operating Maneuvering Speed, MTOW	87	Do not make full or abrupt control movements above this speed.
V_{No}	Max Structural Cruising Speed	95	Do not exceed this speed except in smooth air.
V_{NE}	Never Exceed Speed	120	Do not exceed this speed in any operations.
Windows Removed Speed	Maximum Window Removed Speed	90	Do not exceed this speed with windows removed.

Chapter 05

PERFORMANCE

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5.1 SUMMARY OF PERFORMANCE SPECIFICATIONS

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Gross Weight	1510 lb _f
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Cruise Speed, 5000 RPM, 8000 ft	84 KTAS
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Max Demonstrated Direct Crosswind Component – Land and Water (not a limitation)	12 knots
Service Ceiling at Gross Weight With 100 ft/min Climb Rate	15,000 ft

5.2 AIRSPEED CALIBRATION

5.2.1 CONDITIONS:

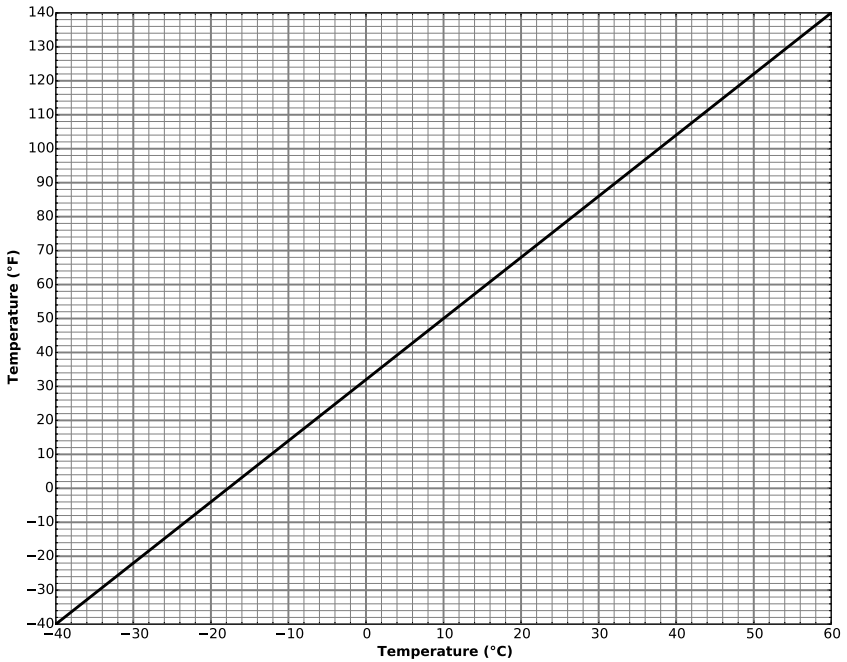
Level flight

Assumed zero instrument error

Flaps 0°	KIAS	50	60	70	80	90	100	110	120
	KCAS	51	61	71	80	90	100	109	119
Flaps 15°	KIAS	45	50	55	60	65	70	75	–
	KCAS	46	51	55	60	65	70	74	–
Flaps 30°	KIAS	45	50	55	60	65	70	75	–
	KCAS	45	50	54	59	64	68	73	–

5.3 TEMPERATURE CONVERSION CHART

FIGURE 5-1
TEMPERATURE CONVERSION BETWEEN FAHRENHEIT
AND CELSIUS



5.4 STALL SPEEDS

5.4.1 CONDITIONS:

1510 lb_f

Power idle

Most forward center of gravity

Assumed zero instrument error

Flap Setting		Angle of Bank			
		0°	30°	45°	60°
0°	KIAS	45	48	54	64
15°	KIAS	41	44	49	58
30	KIAS	39	42	46	55

5.5 NORMAL RUNWAY TAKEOFF PERFORMANCE

5.5.1 CONDITIONS:

1510 lb_f

Landing gear – DOWN

Level and dry asphalt runway

Zero wind

POH normal takeoff and climb technique except for full throttle prior to brake release

5.5.2 CORRECTIONS:

Decrease distances by 10% for each 8 knots of headwind.

Increase distances by 10% for each 4 knots of tailwind.

Increase ground roll distance by 15% for operation on grass runway.

Press Alt (ft)	Temp (°F)	Ground Roll (ft)	Total to Clear 50 ft Obstacle (ft)
Sea Level	0	520	1220
	20	560	1320
	40	600	1410
	60	640	1510
	80	690	1620
	100	740	1730

Press Alt (ft)	Temp (°F)	Ground Roll (ft)	Total to Clear 50 ft Obstacle (ft)
6,000	-20	760	1670
	0	830	1830
	20	910	2010
	40	1000	2190
	60	1090	2390
	80	1180	2610
8,000	-20	1010	2230
	0	1120	2480
	20	1250	2750
	40	1380	3040
	60	1520	3360
	80	1680	3710

5.8 RATE OF CLIMB

5.8.1 CONDITIONS:

1510 lb_f

Flaps – 0°

Full throttle

V_Y – 58 KIAS

Press Alt (ft)	Rate of Climb (ft/min)					
	0°F	20°F	40°F	60°F	80°F	100°F
Sea Level	682	663	646	629	614	598
1,000	644	626	609	592	577	562
2,000	607	589	571	555	540	525
3,000	569	551	534	518	503	488
4,000	532	514	497	481	466	451
5,000	494	477	460	444	429	415
6,000	457	439	423	407	392	377
8,000	381	363	346	330	314	300
10,000	303	285	268	252	237	223
12,000	224	207	191	175	160	146