

Improvements to DA40 (2003) Updated 4/15/2021

	Improvement	Comment	Cost (X1000)
DONE			
Hartzell Alum Prop	100-200fpm+ 3kt TAS+ Durable+	Nose +16lb, more vib	11
PowerFlow Exhaust	100-200fpm+, 5kt TAS+	Increased Maint Cost	6.0
Gami Injectors	Run LOP for +NMPG		0.7
Fine Wire Plugs	Run LOP for +NMPG		0.3
New Landing Gear	110lb+ gross wt, 128lb+ ldg wt	Still have diff ldg wt	6.0 4.6 part
Fuel Static Tabs	Better static protection	Hard to find	0.2
LED Lights	Brighter, less amps	Not as bright as HID	1.6
GNS530 WAAS Add	WAAS for ADSB, +GS approach	Lose Xfill w/ GNS430	4.0
Flight Stream 210	Easier FPL FF-GPS/ADHR/TX/W	No battery backup	1.8
GDL88 ADSB	Certified TX, WX	Fixed Tail No	6.0
USB ports	Charge Ipad + other device		0.5
Canopy Shades	Reduce heat, glare	Front only	1.0
Portable Oxygen	Fly high for WX, speed	Refills \$	0.4
Seat Cushions	More comfort		0.4
TOTAL			39.9

Possible Future Improvements

Est Cost

PERFORMANCE

Electroair Distributor	1-1.5GPH LESS AT 10K+	CHT up, issues	6.0 3.75 part
SureFly	Less GPH, Less Maintenance	CHT up, issues	2.0 1.4 part
Supercharger	10-15kt+ TAS at 8K+	Nose +20lb, CHT up	32.2 30.2 part
Larger Rudder	Better Xwind performance		4.0 3.6 part

AVIONICS

Garmin 3X/G5	SVT/PFM/HITS/MFD/GPSS	Database \$	19.6 11.6 part
Aspen Pro Max 1000	SVT/FPM/AoA/GPSS	Database \$	15.0 10.0part
Aspen E5	GPSS	No SVT/FPM	10.9 5.9 part
GI275-AI	SVT/FPM	Small display, touch	7.3 4.3 part
GI275-AI/HSI	SVT/FPM/GPSS/revert AI	Touch, Database \$	12.3 8.3 parts
AV-30 AI	Lighter, supplemental data	Unknown reliable	2.7 1.7 part
AV-20	Backup AI, AoA	Tiny, not primary	1.8 0.8 part
JPI 930	Save Data, HP%, LOP find	Difficult to install	8.0 5.5 part
GI275-EIS	Save Data, LOP find	Small, No HP%	7.4 4.9 part
GMA345	Freq Diff Ear, BT-FF, USB	Smaller Sound Spread	1.8 1.6 part
PS8000G	GMA345 + Audio Alerts	Extra Install for AA	2.1 1.9 part
GMA350	GMA345 + Voice Change Freq	Extra Install for VCF	2.0 1.8 part
PMA450B	GMA345 + 2BT + Audio Alerts	Extra Install for AA	2.6 2.2 part

SAFETY

406 ELT	Better SAR response in crash	Iphone good sub	1.5 1.0 part
AmSafe Airbags	Improved body crash protection	2K/7yr; Yr maint	7.5 5.5 part

UTILITY/RELIABILITY

4WayBaggage	Baggage space+	Rear +8lb	10.5 10.0 part
Composite Prop	Less vibration, +16lb useful load	Less ground clear	17.0 16.4 part
Whelen 600 Wingtip	Reliable+, 4lb+ useful, -2" span		1.5 1.3 part
Inogen G5	Unlimited oxygen	1 person, 3hr batt	2.7