

SURDEX CORPORATION - QUALITY MANAGEMENT SYSTEM



WEIGHT & BALANCE

DMC Configuration

DATE: 9/24/2020
 MAKE: Twin Commander
 SERIAL #: 11475

N#: 690LS
 MODEL: 690B

<i>ITEM:</i>	<i>USEFUL LOAD:</i>	<i>WEIGHT:</i>	<i>ARM:</i>	<i>MOMENT</i>
AIRCRAFT TOTALS				
Basic Weight and Balance as calculated 7/22/20:		7,204.00	217.01	1,563,309.00
Installed DMC Camera: AFT Hole				
DMC Base Mount		136.00	196.00	26,656.00
Camera 149 Lower		141.00	196.00	27,636.00
Camera 149 Top		58.00	196.00	11,368.00
Riser		50.00	196.00	9,800.00
Cables		15.00	164.00	2,460.00
ADC Screen, Power Unit, Cam Logger, DCI Video Box		10.00	164.00	1,640.00
Equipment Rack		9.00	164.00	1,476.00
InFlight Box		23.00	164.00	3,772.00
Applanix Box with cables		10.00	164.00	1,640.00
Operator Seat		40.00	182.00	7,280.00
MAX T/O: 10,375	USEFUL LOAD:	2679		
	TOTALS:	7,696	215.31	1,657,037

NEW AIRCRAFT EMPTY WEIGHT: 7,696.00	TOTAL MOMENTS: 1,657,037.00
NEW EMPTY WEIGHT CG: 215.31	
COMPUTED BY: Kevin Manahan	

CONTINUED See Condition of Weighing Form

Commander 690B

Subject	Max	Weights	Arm	Moment
Pilot Seats (1 and 2)		320	100.00	32000.00
Operator Seat AFT		190	182.00	34580.00
Flight Bags -Front		20	112.00	2240.00
Blank		0		0.00
Flight Bags - Back		10	182.00	1820.00
Baggage Compartmt	600	20	252.00	5040.00
A/C Empty Weight		7696	215.31	1657037.00
Zero Fuel Weight	8750	8256	209.87	1732717.00
Fuel (lbs)		2100	238.00	499800.00
Ramp Weight	10375	10356	215.58	2232517.00
Less Taxi Fuel		-50	238.00	-11900.00
Take Off Weight	10325	10306	215.47	2220617.00
Fuel Used (lbs)		-1600	241.00	-385600.00
Landing Weight	9675	8706	210.78	1835017.00

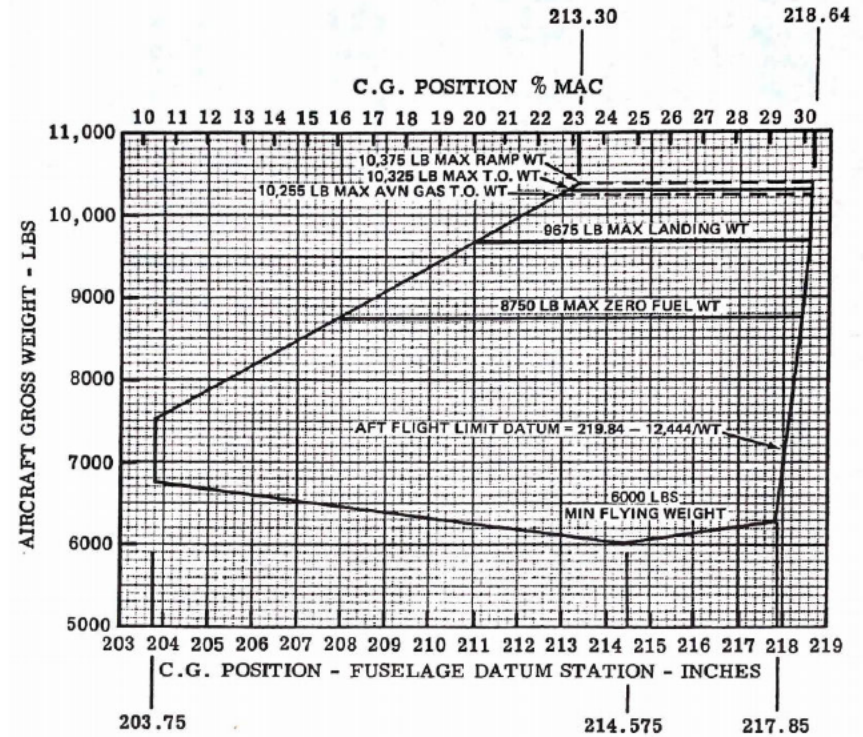
Operating Speeds (KIAS)

VNE	246	VLE 201	VFE (20 degrees) 180	Max Landing Light	155
VMMO	SL - 19,000 246	VLO 201	VFE (40 degrees) 140	Max Oil Cooler Doors	180
	21,000 234		VA 10,325 148	Vyse	113
	23,000 225		8750 137	VMCA	83
	25,000 216		7500 128	All Engines Vy	139
	27,000 206		6000 117	All Engines Vx	89

Landing Weight	Stall 45°	1.3	Stall 15°	1.3	Stall 0°	1.3
9600						
9300						
9000						
8700						
8400						

DMC

N690LS



Fuel Burns	0.5	1.0	1.5	2.0
640	320	640	960	1280
620	310	620	930	1240
600	300	600	900	1200
580	290	580	870	1160
560	280	560	840	1120
540	270	540	810	1080
520	260	520	780	1040
500	250	500	750	1000
480	240	480	720	960
460	230	460	690	920
440	220	440	660	880
420	210	420	630	840
400	200	400	600	800