

MILITARY AEROSPACE		MINNESOTA
SCALE 1/48	MASTER ARRANGEMENT	MODEL SM-27S/T
ENGINEER C.R. Beskar		DRAWING NUMBER SM-27-000109
APPROVED 		DATE 07/01/2009

	WING	CANARD	HORIZ TAIL	VERT TAIL
AREA SQ FT.	243.39	36.37	88.52	58.32
SPAN FEET	47.00	12.10	20.58	12.96
ASPECT RATIO	9.08	4.03	2.39	2.88
TAPER RATIO	0.44	0.44	0.47/0.25	0.35
SWEEP AT 25%C	2.6°	32.2°	29.4°/19.4°	32.7°
ROOT CHORD FEET	7.19	4.19	6.18	6.67
TIP CHORD FEET	3.17	1.83	2.89/1.55	2.33
MAC FEET	5.44	3.16	4.73/4.33	4.85

WING		CANARD		HORIZ TAIL		VERT TAIL	
DIHEDRAL AT 0.25C				1.00°			
INCIDENCE				ROOT 0.00°	TIP -0.40°		
AIRFOIL SECTION-ROOT				MODIFIED NACA 65-415			
AIRFOIL SECTION-TIP				MODIFIED NACA 65-415			
AVERAGE AIRFOIL SECTION				MODIFIED NACA 65-415			

FLAPS		CANARD	
AREA SQ FT TOTAL	26.77		
DEFLECTION TAKE-OFF	10°		
DEFLECTION LANDING	30°		
MAX DEFLECTION	40°		
PERCENT OF WING CHORD	31%		
PERCENT WING AREA AFFECTED	38%		
TYPE	DOUBLE SLOTTED FOWLER		

AILERON		CANARD	
AREA SQ FT TOTAL	15.88		
DEFLECTION DEGREES	DN 30°-UP 30°		
TYPE	SEMI-AERODYNAMICALLY MASS BALANCED		

VERTICAL TAIL		CANARD	
RUDDER AREA SQ FT	32.68		
RUDDER DEFLECTION DEGREES	+/- 30°		
TYPE	SEMI-AERODYNAMICALLY MASS BALANCED		
AIRFOIL SECTION	NACA 0009		

HORIZONTAL TAIL		CANARD	
ELEVATOR AREA SQ FT	71.79		
ELEVATOR DEFLECTION DEGREES	DN 28°-UP 28°		
TYPE	SEMI-AERODYNAMICALLY MASS BALANCED		
AIRFOIL SECTION	NACA 0012		
DIHEDRAL	-5.00°		

POWERPLANT		CANARD	
NUMBER	1		
TYPE	TURBOPROP		
MODEL	P&WC PW127G		
MAXIMUM TAKEOFF POWER, SHP	2,920		
MAXIMUM TAKEOFF POWER, RPM	1,200		
MAXIMUM TAKEOFF POWER, SFC	0.453		
MAXIMUM CRUISE POWER, SHP	2,132		
MAXIMUM CRUISE POWER, RPM	1,200		
MAXIMUM CRUISE POWER, SFC	0.491		
ENGINE LENGTH, INCHES	84.00		
ENGINE WIDTH, INCHES	26.00		
ENGINE HEIGHT, INCHES	33.00		
ENGINE DRY WEIGHT, LBS	1,060		
ENGINE BASIC TBO, HOURS	6,000		

PROPELLER		WEIGHTS (SM-27T)	
NUMBER	2	AIRCRAFT EMPTY WEIGHT (LBS)	11,200
TYPE	CONTRA-ROTATING CONSTANT SPEED SCIMITAR	DESIGN USEFUL LOAD (LBS)	12,904
MODEL	STAVATTI-AEROSILA	FLIGHT CREW & FIXED AMMUNITION (LBS)	1,404
DIAMETER INCHES	120.00	FUEL-STANDARD INTERNAL (LBS)	5,000
NUMBER OF BLADES	8 x 6	WARLOAD WITH STANDARD INTERNAL FUEL (LBS)	6,500
		CLEAN TAKEOFF GROSS WEIGHT (LBS)	17,604
		MAXIMUM GROSS TAKEOFF WEIGHT (LBS)	24,104

NOSE GEAR		WEIGHTS (SM-27T)	
NUMBER OF STRUTS	1	AIRCRAFT AERODYNAMIC CENTER FROM DATUM (FT)	23.24
NUMBER OF WHEELS PER STRUT	1	AIRCRAFT AERODYNAMIC CENTER MAC (FT)	5.14
TIRE SIZE	19.5 x 6.75-8	MAC LE DISTANCE FROM DATUM (FT)	21.97
PLY RATING	10TL		
INFLATION PRESSURE, PSI	110		

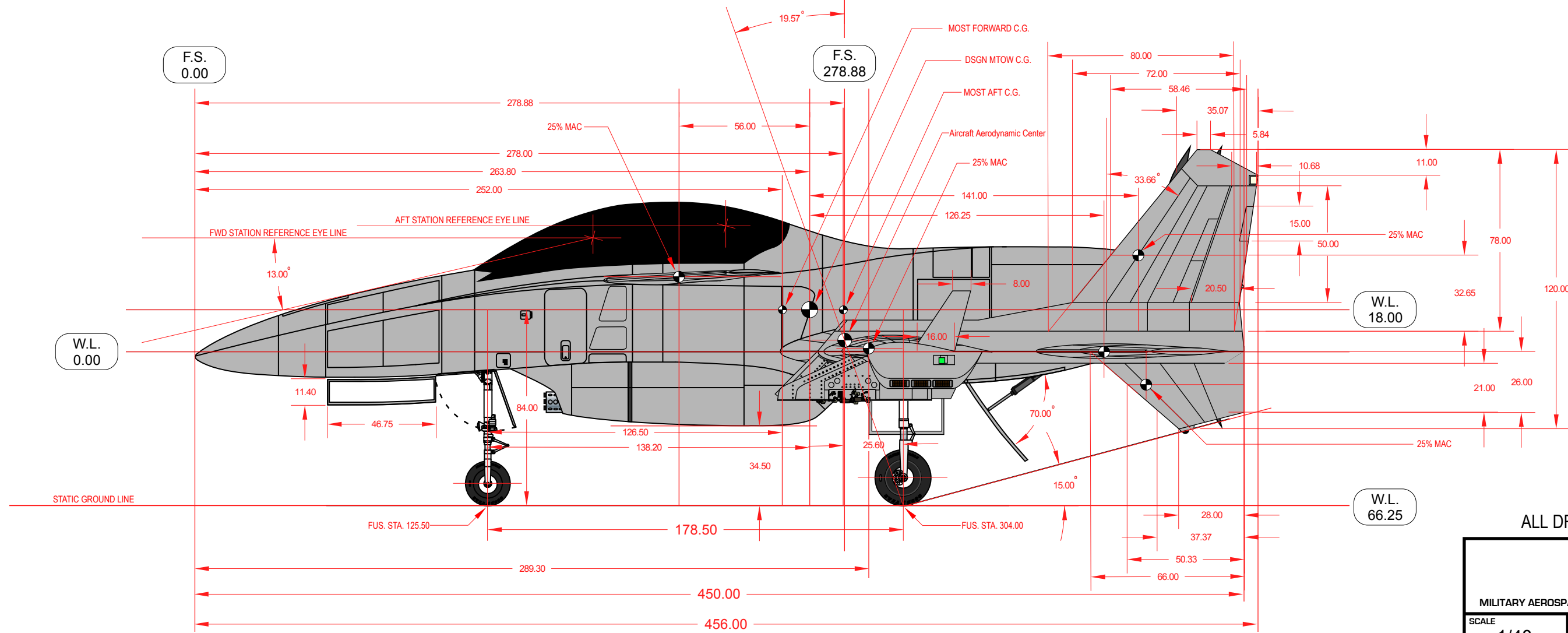
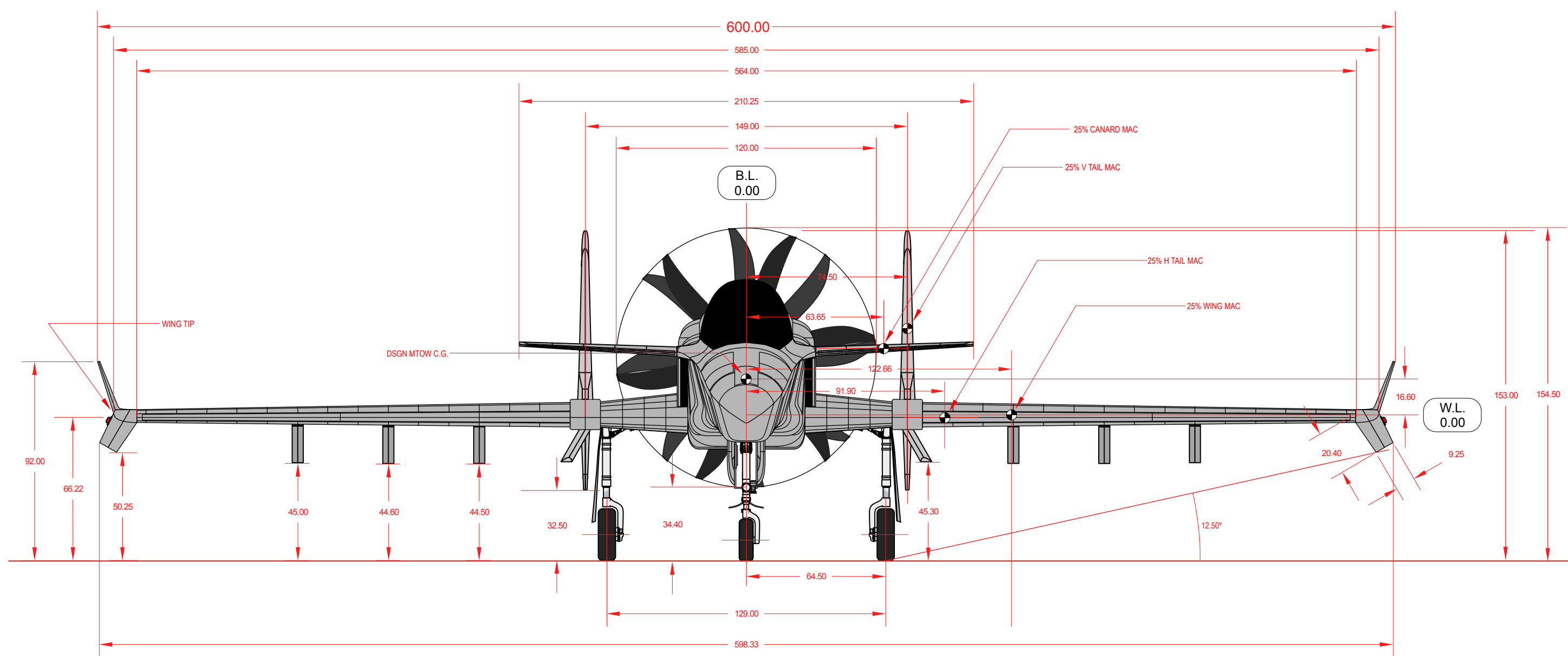
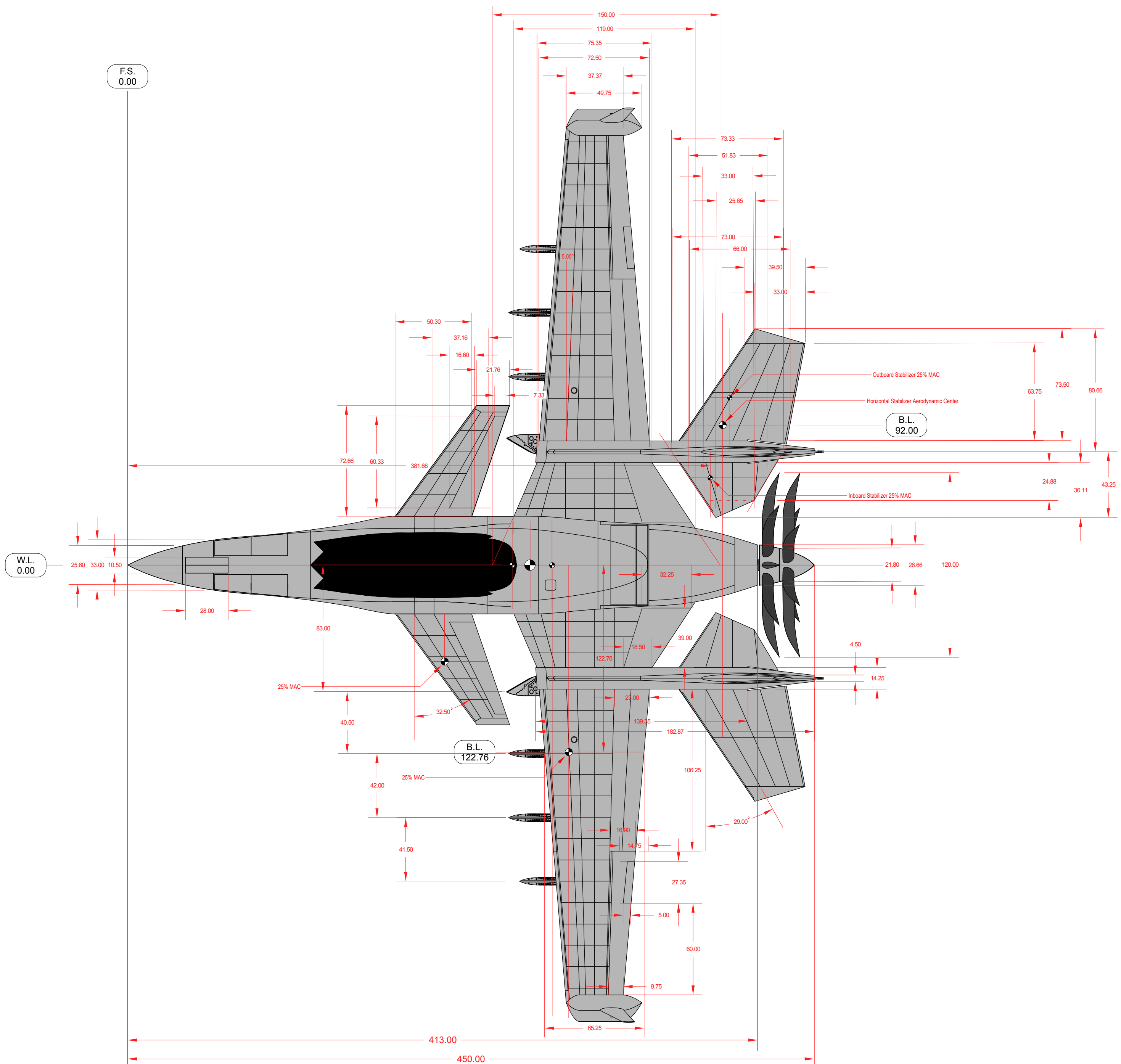
MAIN GEAR		WEIGHTS (SM-27T)	
NUMBER OF STRUTS	2	AIRCRAFT AERODYNAMIC CENTER FROM DATUM (FT)	23.24
NUMBER OF WHEELS PER STRUT	1	AIRCRAFT AERODYNAMIC CENTER MAC (FT)	5.14
TIRE SIZE	24 x 8.0-13	MAC LE DISTANCE FROM DATUM (FT)	21.97
PLY RATING	18		
INFLATION PRESSURE, PSI	285		

CENTER OF GRAVITY LOCATIONS		WEIGHTS (SM-27T)	
MOST FORWARD CG, % OF MAC	2.0%	AIRCRAFT AERODYNAMIC CENTER FROM DATUM (FT)	23.24
MOST FORWARD CG, DISTANCE FROM DATUM (FT)	21.98	AIRCRAFT AERODYNAMIC CENTER MAC (FT)	5.14
		MAC LE DISTANCE FROM DATUM (FT)	21.97
MTOW CG, % OF MAC	23.68%		
MTOW CG, DISTANCE FROM DATUM (FT)	23.18		

WETTED AREA (SQ FT)		CENTER OF GRAVITY LOCATIONS	
FUSELAGE	485	MOST FORWARD CG, % OF MAC	2.0%
EMPENNAGE SUPPORT BOOMS	134	MOST FORWARD CG, DISTANCE FROM DATUM (FT)	21.98
VENTRAL CANNON FAIRING	51		
PROPELLER SPINNER	14		
WINGTIP DISPENSERS	28		
STORES PYLONS	116		
WING	471		
CANARD	75		
HORIZONTAL STABILIZER	149		
VERTICAL STABILIZER	180		

WETTED AREA (SQ FT)		CENTER OF GRAVITY LOCATIONS	
TOTAL	1,703	MOST AFT CG, % OF MAC	35.00%
		MOST AFT CG, DISTANCE FROM DATUM (FT)	23.71

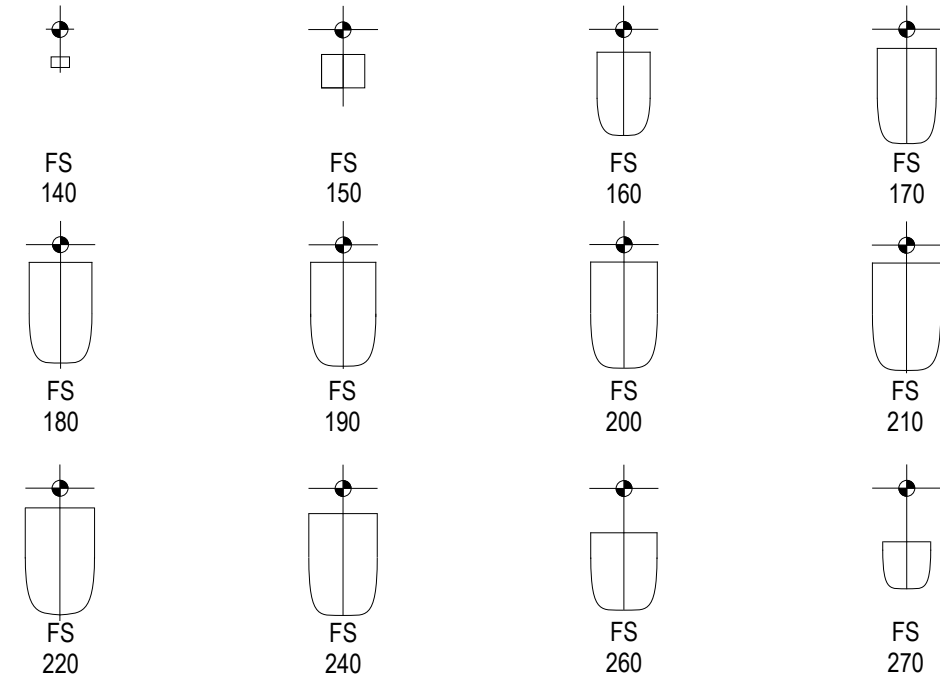
WETTED AREA (SQ FT)		CENTER OF GRAVITY LOCATIONS	
FUSELAGE	485		
EMPENNAGE SUPPORT BOOMS	134		
VENTRAL CANNON FAIRING	51		
PROPELLER SPINNER	14		
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HORIZONTAL STABILIZER	149		
VERTICAL STABILIZER	180		
TOTAL	1,703		



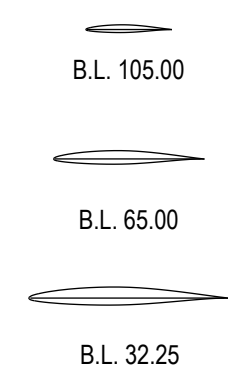
ALL DRAWING DIMENSIONS ARE IN INCHES (IN)

STAVATTI		MINNESOTA	
MILITARY AEROSPACE	SCALE	MODEL	DATE
	1/48	SM-27S/T	
ENGINEER	GENERAL ARRANGEMENT		DRAWING NUMBER
C.R. Beskar			SM-27-000209
APPROVED			DATE
			07/01/2009

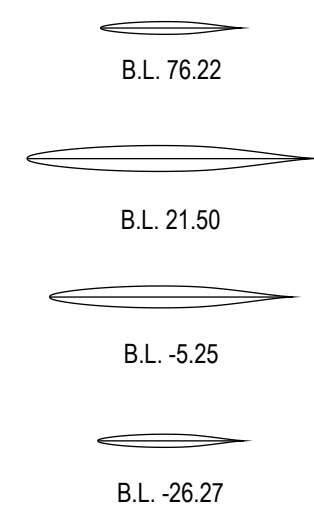
VENTRAL CANNON FAIRING CROSS SECTIONS



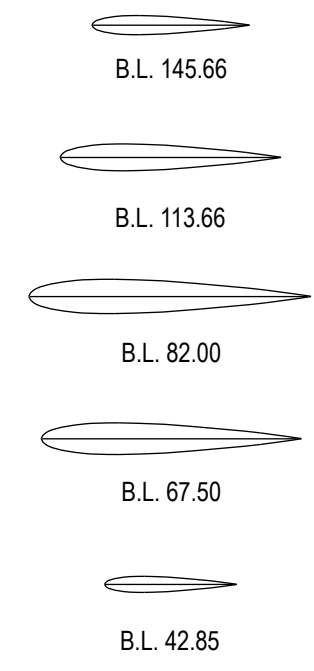
CANARD SECTIONS



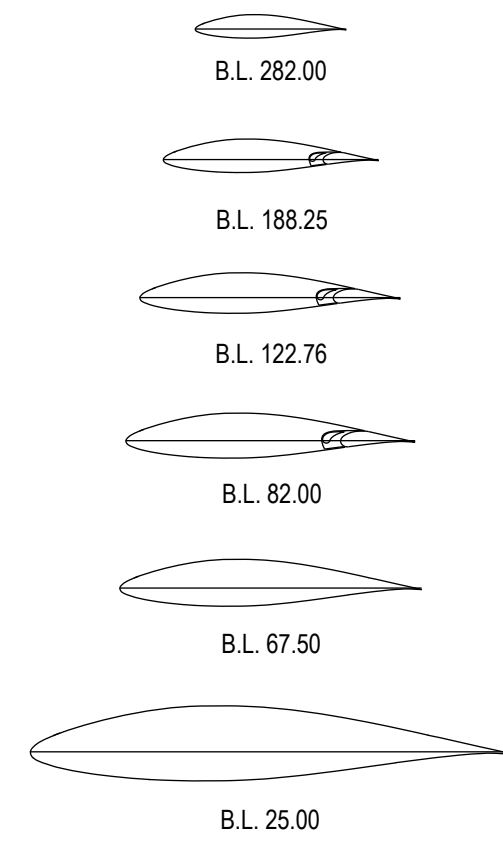
V TAIL SECTIONS



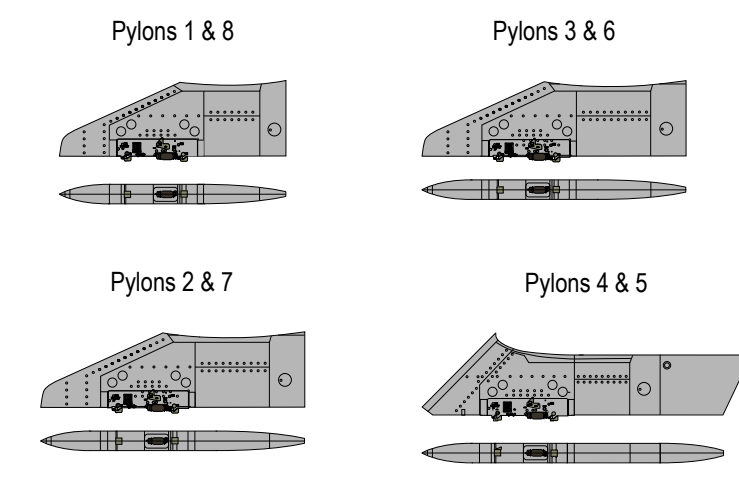
H TAIL SECTIONS



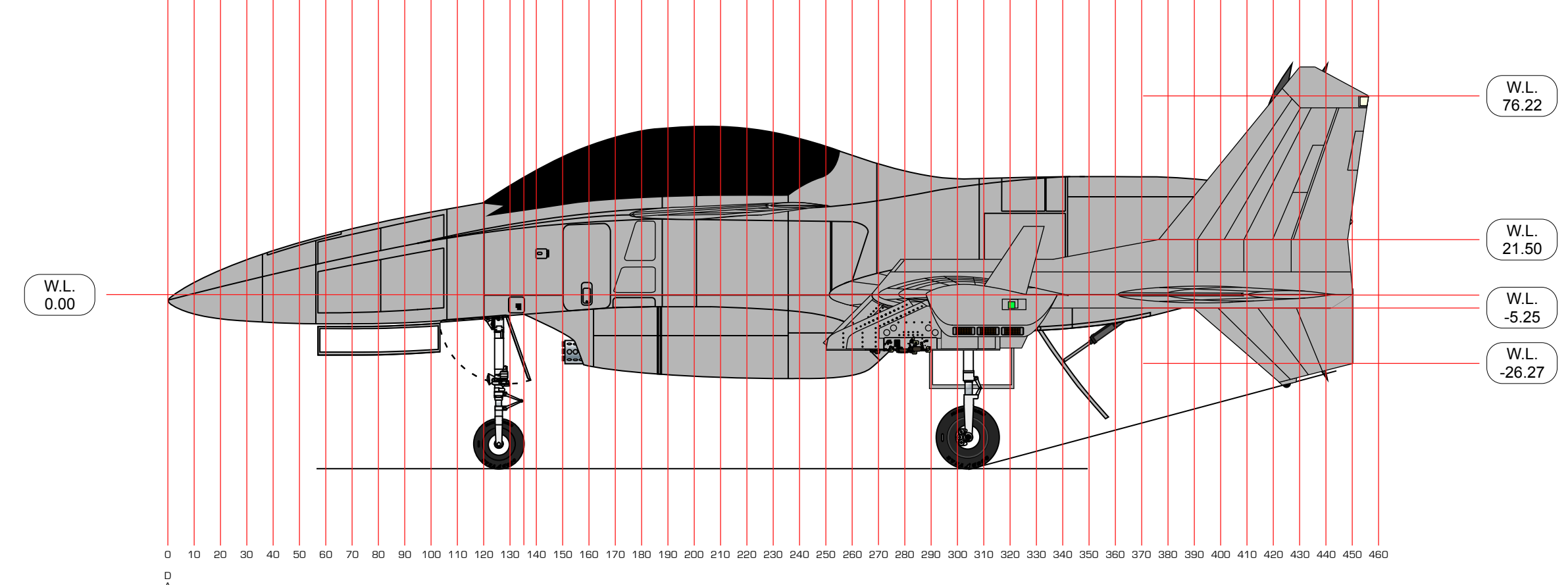
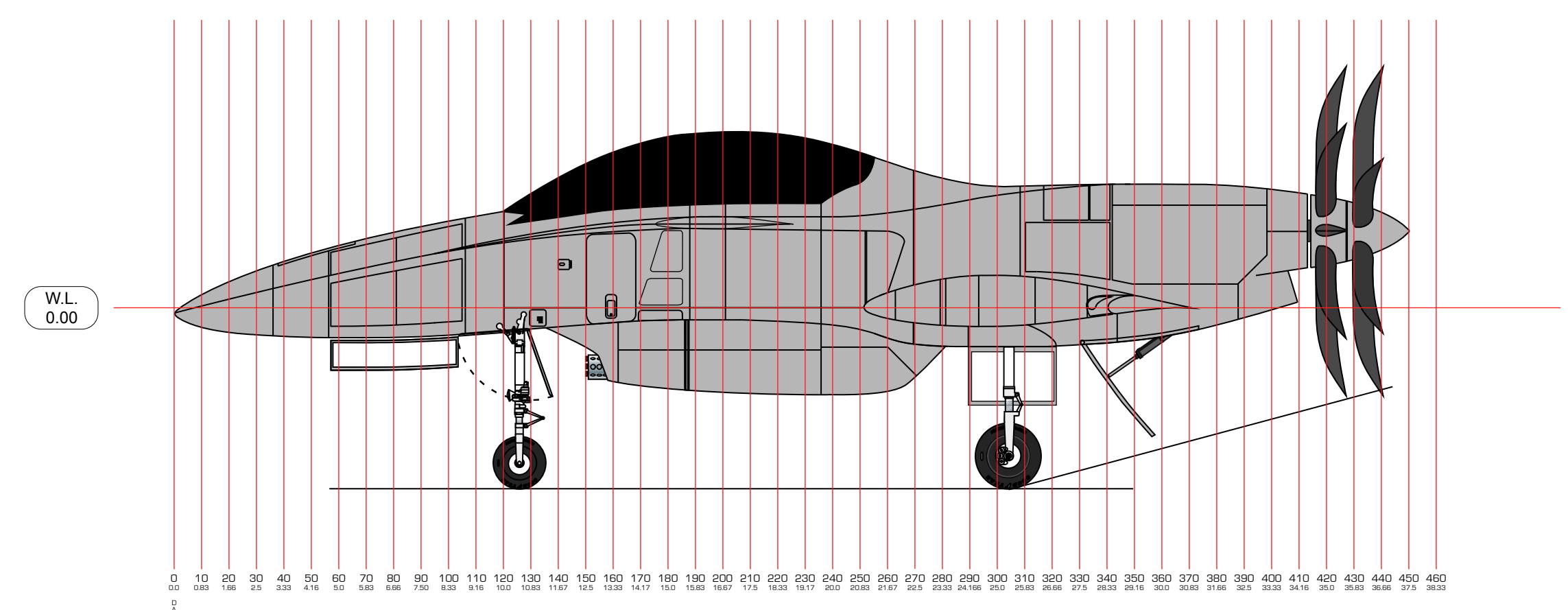
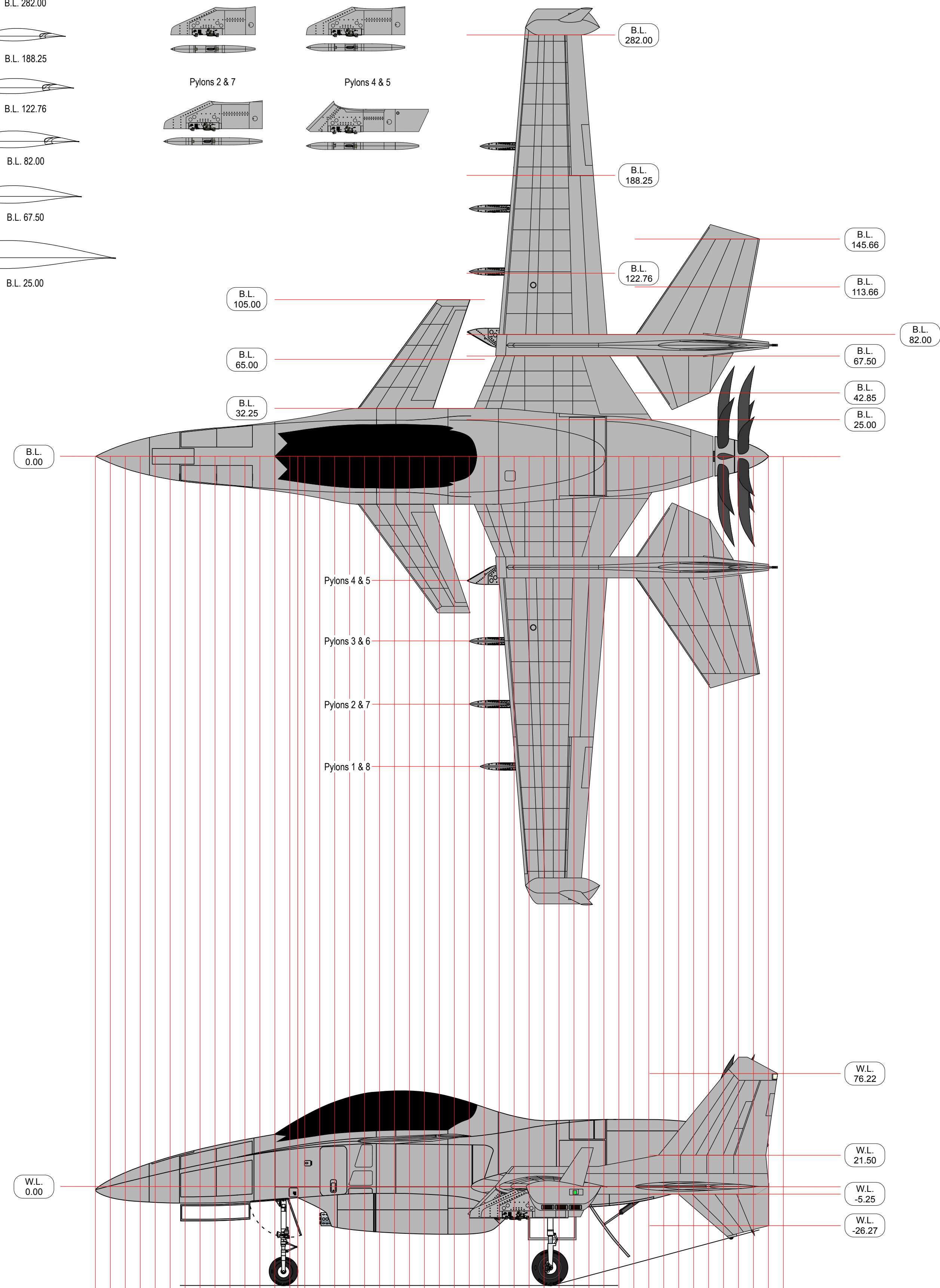
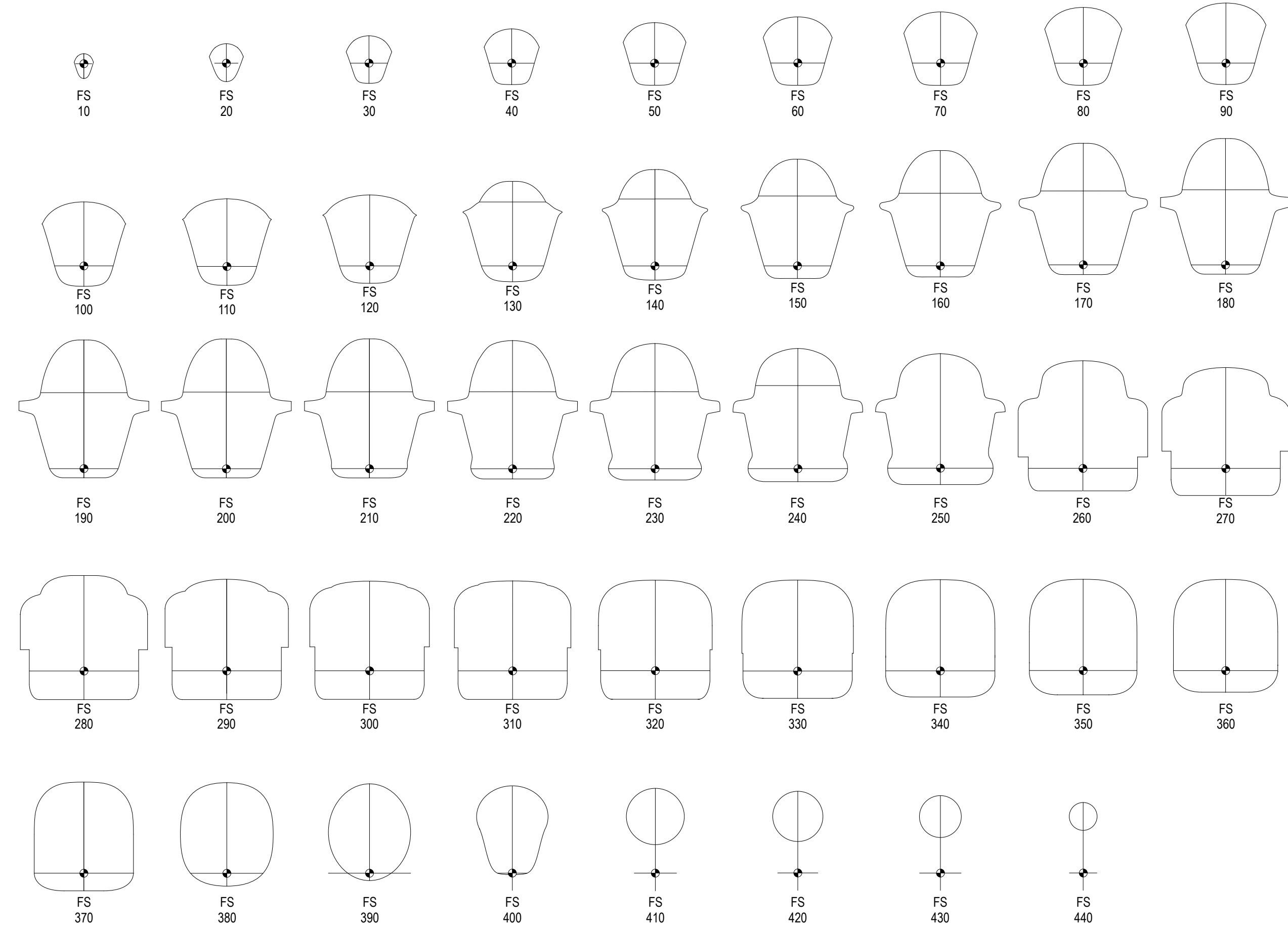
WING SECTIONS



STORES PYLONS



FUSELAGE CROSS SECTIONS



CROSS SECTION STATIONS ARE IN INCHES FROM DATUM (IN)

STAVATTI		MINNESOTA
MILITARY AEROSPACE		MODEL
SCALE	1/48	SM-27S/T
ENGINEER	C.R. Beskar	DRAWING NUMBER
APPROVED		SM-27-000309
		DATE
		07/01/2009