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CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION

SAN DIEGO

REPORT ZW-8-519

DATE 15 November 1959

MODEL F-106A

TITLE

ACTUAL WEIGHT AND BALANCE REPORT
UNITED STATES AIR FORCE MODEL F-106A
INTERCEPTOR FIGHTER AIRPLANE

WITH

PRATT & WHITNEY MODEL J75-P-17 ENGINE
CONTRACT NO. AF33(600)-34814
SERIAL NO. AF58-759

PREPARED BY E. J. Porter

E. J. Porter

GROUP WEIGHTS

G. V. Smith

G. V. Smith

REFERENCE MIL-W-25140 (ASG)

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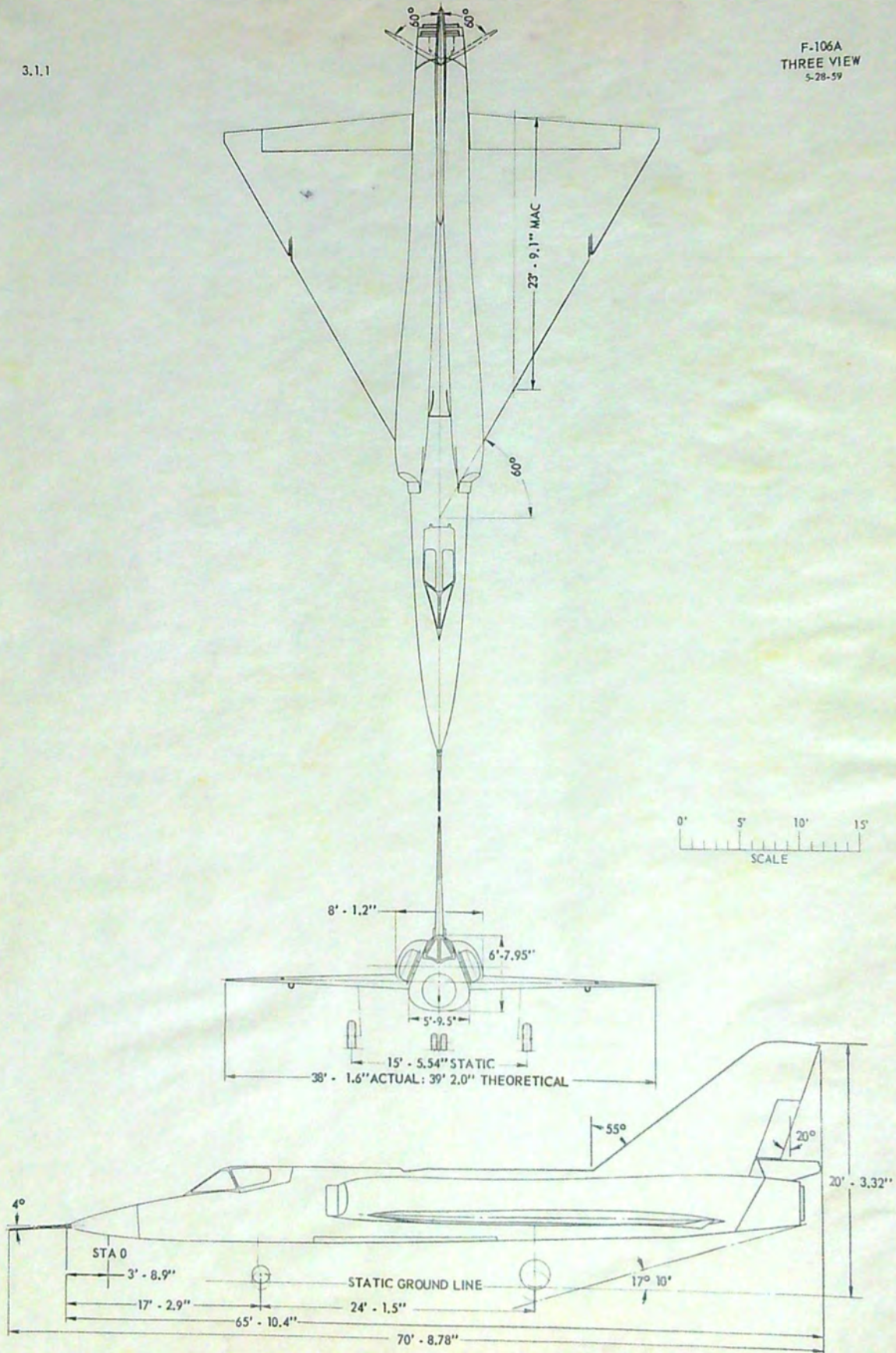
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3.1.1

F-106A
THREE VIEW
5-28-59



0' 5' 10' 15'
SCALE

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INTRODUCTION

This is a first type Actual Weight and Balance Report for U.S.A.F. Model F-106A as described in Detail Specification ZD-8-005C dated 15 May 1958. It is issued to comply with contractual requirements of paragraph 3.7.4 of MIL-W-25140 (ASG) dated 31 March 1955.

This report is representative of Airplane Serial Number 58-759 thru 58-778 (Contractor's Nos. 8-24-70 thru 8-24-89) as tactical aircraft, with the exception of the Derivation of Basic Weight, Chart A, Chart C, Ballast Chart E, and Form F which represent the airplane (58-759 Contractor No. 8-24-70) as delivered to the Air Force.

The airplanes represented by this report incorporate Hughes' MA-1 electronic equipment and carry an armament loading of two GAR-3, two GAR-4 missiles, and one rocket, type MB-1. This is the first block of airplanes to receive ARDC Vertical Instruments during the production schedule.

The airplane has nine integral fuel tanks. Four tanks are located in each wing and one tank is located in the fuselage, above the forward portion of the missile bay. The tank in the fuselage is identified as the fuselage tank. The wing tanks are identified as tank no. 1, tank no. 2, tank no. 3, and transfer tank. Provisions are incorporated for installing an external jettisonable fuel tank to the underside of each wing. Internal fueling of the aircraft is accomplished at a single-point pressure fitting at the lower right side of the engine inlet duct fairing. A refueling selector valve is located in the right-hand main wheel well. When the valve is closed during refueling, the airplane is refueled for Normal fuel of 1304 gallons of usable fuel. When the valve is open the airplane will be fueled for Full Internal Fuel of 1514 gallons of usable fuel as determined by fuel calibration on an actual airplane. With external tanks aboard, an additional 454 gallons of usable fuel is available.

An approximate weight of the Ultimate Tactical Airplane may be determined by adding the weight of "Items not on this airplane but may be on tactical airplane" to the weight of the airplane shown in this report.

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WEIGHT AND BALANCE SUMMARY

	WEIGHT	USABLE FUEL (GAL.)	CENTER OF GRAVITY	
			% M.A.C.	INCHES ABOVE L.E. M.A.C.
Weight Empty	23448	---	26.7	7.5
Normal Useful Load	10440	1304	24.4	2.5
Normal Gross Weight - Gear Down	33888	1304	26.0	5.9
Normal Gross Weight - Gear Up	33888	1304	26.0	7.1
Most Forward C.G.*	25412	---	24.2	8.0
Normal Most Aft C.G. - Subsonic	26604	395	28.8	7.1
Normal Most Aft C.G. - Supersonic	30179	945	33.1	7.8
Overload Useful Load (Full Internal Fuel)	11805	1514	30.8	2.9
Overload Gross Weight - Gear Down	35253	1514	28.1	5.9
Overload Gross Weight - Gear Up	35253	1514	28.0	7.1
Overload Most Aft C.G. - Subsonic	26864	435	29.3	7.1
Overload Most Aft C.G. - Supersonic	30439	985	33.5	7.8
External Useful Load	15125	1968	31.6	- 2.9
Gross Weight with External Fuel-Gear Down	38573	1968	28.6	3.4
Gross Weight with External Fuel - Gear Up	38573	1968	28.6	4.4

* Most Forward C.G. is the same for all fuel loadings because the most forward condition is zero fuel.

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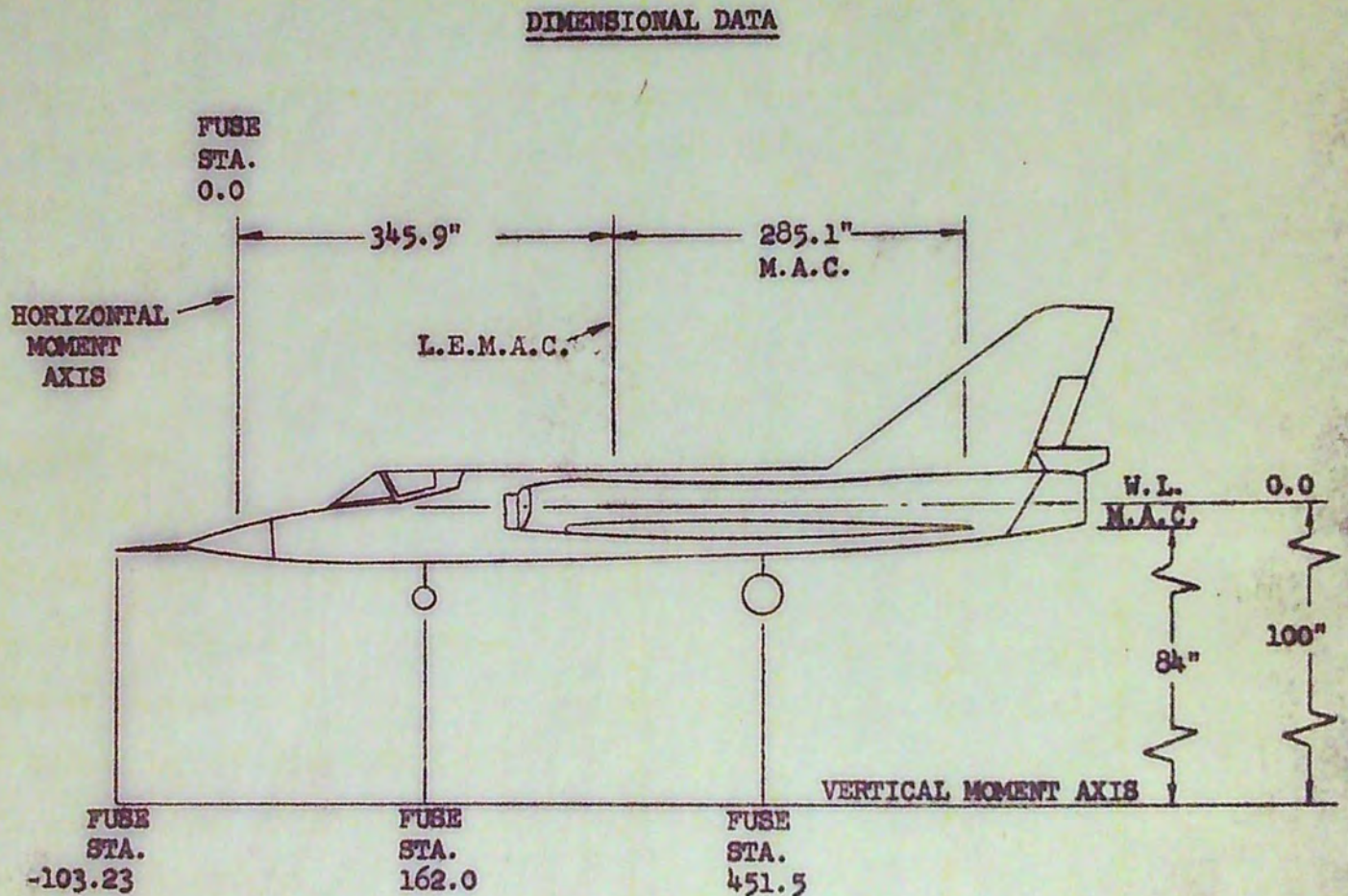


FIGURE 2.

The horizontal moment axis is located at Fuselage Sta. 0.0 which is 103.23 inches aft of the tip of the nose boom. The vertical moment axis is 100.0 inches below W.L. 0.0.

The M.A.C. is 285.1 inches long. The leading edge of the M.A.C. is 345.9 inches aft of Fuselage Sta. 0.0 and is located at W.L. -16.0 (vertical arm of 84).

For C.G. limits see page 91 .

GROUP WEIGHT STATEMENT

ACTUAL

CONTRACT AF33-600 -34814

AIRPLANE-GOVERNMENT NUMBER AF58-759

AIRPLANE-CONTRACTOR NUMBER 8-24-70

MANUFACTURED BY CONVAIR-A DIVISION OF GENERAL DYNAMICS CORPORATION

ENGINE MAIN AUXILIARY

MANUFACTURED BY PRATT + WHITNEY

MODEL J-75-P- 17

NUMBER ONE

1	WING GROUP								3302
2	MAIN PANEL-BASIC STRUCTURE							2878	
3	INTERMEDIATE PANEL-BASIC STRUCTURE								
4	OUTER PANEL-BASIC STRUCTURE - INCL TIPS					LBS			
5									
6	SECONDARY STRUCTURE							97	
7	ELEVONS							327	
8	FLAPS-TRAILING EDGE								
9	-LEADING EDGE								
10	SLATS								
11	SPOILERS								
12	SPEEDBRAKES								
13									
14									
15	TAIL GROUP								693
16	STABILIZER-BASIC STRUCTURE								
17	FIN-BASIC STRUCTURE							615	
18	SECONDARY STRUCTURE-FIN							7	
19	ELEVATOR - INCL BALANCE WEIGHT					LBS			
20	RUDDERS - INCL BALANCE WEIGHT	0.0				LBS		71	
21									
22									
23	BODY GROUP								4401
24	FUSELAGE OR HULL-BASIC STRUCTURE							3080	
25	TAILCONE-BASIC STRUCTURE								
26	SECONDARY STRUCTURE-FUSELAGE OR HULL							587	
27	BOOMS								
28	-SPEEDBRAKES								
29	-DOORS, PANELS + MISC							734	
30									
31	ALIGHTING GEAR GROUP-LAND - TYPE								1232
32	LOCATION	*ROLLING	STRUCT	CONTROLS					
33		ASSEMBLY							
34	MAIN	405.7	515.1	100.0				1020.8	
35	NOSE	40.5	130.7	40.0				211.2	
36									
37									
38									
39	ALIGHTING GEAR GROUP-WATER								
40	LOCATION	FLOATS	STRUTS	CONTROLS					
41									
42									
43									
44									
45	SURFACE CONTROLS GROUP								445
46	COCKPIT CONTROLS							38.3	
47	AUTOMATIC STABILIZATION							63.7	
48	SYSTEM CONTROLS - INCL POWER + FEEL CONT					LBS		343.0	
49									
50	ENGINE SECTION OR NACELLE GROUP								39
51	INBOARD								
52	CENTER								
53	OUTBOARD								
54	DOORS, PANELS + MISC								
55									
56	PAGE TOTAL								10112
57									

* WHEELS, BRAKES, TIRES, TUBES AND AIR

						8071
		X	AUXILIARY	XX	MAIN	X
1	PROPULSION GROUP					
2						
3	ENGINE INSTALLATION				5816	
4	AFTERBURNERS-IF FURN SEPARATELY					
5	ACCESSORY GEAR BOXES + DRIVES					
6	SUPERCHARGER FOR TURBO TYPES					
7	AIR INDUCTION SYSTEM				975	
8	EXHAUST SYSTEM				320.6	
9	COOLING SYSTEM				44.4	
10	LUBRICATING SYSTEM					
11	TANKS					
12	COOLING INSTALLATION					
13	DUCTS, PLUMBING, ETC		45.2			5.8
14	FUEL SYSTEM					
15	TANKS-PROTECTED					
16	-UNPROTECTED					
17	PLUMBING, ETC		67			710
18	WATER INJECTION SYSTEM					
19	ENGINE CONTROLS					28
20	STARTING SYSTEM					59
21	PROPELLER INSTALLATION					
22						
23						
24	AUXILIARY POWER PLANT GROUP					
25	INSTRUMENTS + NAVIGATIONAL EQUIPMENT GROUP					190
26	HYDRAULIC GROUP					255.4
27	PNEUMATIC GROUP					175.6
28						
29	ELECTRICAL GROUP					606
30	AC SYSTEM					466
31	DC SYSTEM					140
32	ELECTRONICS GROUP					2734
33	EQUIPMENT					1950
34	INSTALLATION					784
35						
36	ARMAMENT GROUP - INCL GUNFIRE PROTECTION		0.0	LBS		626
37	FURNISHINGS + EQUIPMENT GROUP					290
38	ACCOMMODATIONS FOR PERSONNEL					188
39	MISCELLANEOUS EQUIPMENT					68.7
40	FURNISHINGS					11.3
41	EMERGENCY EQUIPMENT					22
42						
43	AIR CONDITIONING + ANTI-ICING EQUIPMENT GROUP					407
44	AIR CONDITIONING					333
45	ANTI-ICING					74
46						
47	PHOTOGRAPHIC GROUP					
48	AUXILIARY GEAR GROUP					69
49	HANDLING GEAR					11
50	ARRESTING GEAR					58
51	CATAPULTING GEAR					
52	ATO GEAR					
53						
54	MANUFACTURING VARIATION					
55	UNACCOUNTABLE					- 88
56						
57	TOTAL WEIGHT EMPTY - PG 2-3					23448

AN 9103-D-TAB
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GROUP WEIGHT STATEMENT
 USEFUL LOAD + GROSS WEIGHT

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LOAD CONDITION			EXTERNAL CONDITION	OVERLOAD CONDITION	NORMAL CONDITION
2			286	286	286
3	CREW - NO. 1, INCLUDING SURVIVAL KIT + PARACHUTE				
4	PASSENGERS - NO.				
5	FUEL	TYPE GALS	243	243	243
6	**INTERNAL-UNUSABLE	JP-4 37.4			8476
7	**INTERNAL-USABLE, NORMAL	JP-4 1304.0	9841	9841	
8	**INTERNAL-USABLE, OVERLOAD	JP-4 1514.0			
9	EXTERNAL-UNUSABLE	JP-4 6.0	39		
10	EXTERNAL-USABLE	JP-4 454.0	2951		
11					
12			330		
13	EXTERNAL TANK+PYLON-DROPABLE				
14	OIL				
15	TRAPPED	3.5	26	26	26
16	ENGINE	4.5	34	34	34
17					
18	FUEL TANKS-LOCATION				
19	WATER INJECT. FLUID	GALS			
20					
21	BAGGAGE				
22	CARGO				
23					
24	ARMAMENT				
25	MISSILES	QUANTITY			
26	FORWARD GAR-3	2	282	282	282
27	AFT GAR-4	2	264	264	264
28					
29					
30					
31					
32					
33					
34					
35					
36	ROCKET-MB-1 TYPE	1	828	828	828
37					
38					
39	INSTALLATIONS				
40	CARTRIDGE-MB-1 EJECT	5	1	1	1
41					
42					
43					
44					
45					
46	EQUIPMENT				
47	PYROTECHNICS				
48	PHOTOGRAPHIC				
49					
50	* OXYGEN				
51					
52	MISCELLANEOUS				
53					
54					
55	USEFUL LOAD TOTAL		15125	11805	10440
56	WEIGHT EMPTY FROM PAGE 3		23448	23448	23448
57	GROSS WEIGHTS - PG 2-A		38573	35253	33888

*IF NOT SPECIFIED AS WEIGHT EMPTY
 **PER FUEL CALIBRATION ON 56-459
 ***FULL INTERNAL FUEL

NAME CONVAIR

DATE 15 November 1959

1	LENGTH-OVERALL-FT	70.73			HEIGHT-OVERALL-STATIC-FT	20.27		
2		MAIN	AUX	BOOMS	FUS	X	NACELLES	X
3		FLOATS	FLOATS		OR HULL	INBOARD	CENTER	OUTBOARD
4	LENGTH-MAX-FT (STA. 40.89 TO STA. 693.2)				54.36			
5	DEPTH-MAX-FT (AT STA. 216.5)				6.49			
6	WIDTH-MAX-FT				8.06			
7	WETTED AREA-SQ FT	2230.0			985.00			
8	*FLOAT/HULL DISPL MAX LBS							
9	FUSELAGE VOLUME-CU FT		PRESSURIZED			TOTAL WING	H TAIL	V TAIL
10						697.83		105.0
11	GROSS AREA-SQ FT					4.73		6.60
12	WEIGHT/GROSS AREA-LB/SQ FT					38.29		10.10
13	SPAN-FT (AERODYN.)							
14	FOLDED SPAN-FT							
15	EXPOSED AREA-SQ FT					492.2		
16	SWEEPBACK-AT 25% CHORD LINE-DEGREES							
17	-AT 0% CHORD LINE-DEGREES					60.0		55.0
18	**THEORETICAL ROOT CHORD -LENGTH-INCHES					427.6		189.2
19						16.65		7.57
20	***CHORD AT PLANFORM BREAK-LENGTH-INCHES							
21								
22	***THEORETICAL TIP CHORD -LENGTH-INCHES					ZERO		60.23
23								2.41
24	DORSAL AREA, INCL IN FUS - HULL - V TAIL-AREA-SQ FT							
25	TAIL LENGTH-25% M.A.C. WING TO 25% M.A.C. V TAIL-FT							16.72
26	AREA-SQ FT/AIRPLANE FLAPS L.E.							
27	LATERAL CONTROLS SLATS							
28	BOTH SPEED BRAKES WING							
29	RUDDER	11.10				AREA-SQ FT		
30								
31	ALIGHTING GEAR			LOCATION		MAIN		NOSE
32	LENGTH-OLEO EXT-C.L. AXLE TO C.L. TRUNNION-INCHES					68.18		44.5
33	OLEO TRAVEL-FULL EXT TO COLLAPSED-INCHES					11.70		8.0
34	FLOAT OR SKI STRUT LENGTH-INCHES							
35	ARRESTING HOOK LENGTH-C.L. HOOK TRUNNION TO C.L. HOOK POINT-INCHES							
36	HYDRAULIC SYSTEM CAPACITY-GALS PRIMARY 3.36 (APPROX.)							SECONDARY 5.75
37	FUEL + LUB SYST		NUMBER	***GALS		NUMBER	***GALS	
38		LOCATION	TANKS	PROTECTED		TANKS	UNPROTECTED	
39	FUEL-INTERNAL WING OVERLOAD USABLE					8		1274
40	FUS/OVERLOAD USABLE					1		240
41	-EXTERNAL WING USABLE					2		454
42	-BOMB BAY							
43								
44	OIL ENGINE					1		4.5
45								
46	STRUCTURAL DATA-CONDITION							
47					WING FUEL-LBS	FUSELAGE FUEL-LBS	GROSS WT	ULT L.F.
48	FLIGHT-NORMAL DESIGN (ZU-8-043)				4020	1193	30590	10.5
49	LANDING-NORMAL DESIGN (ZU-8-043)				2122	23	26172	4.5
50	MAX GROSS WT WITH ZERO WING FUEL							
51	CATAPULTING							
52	MINIMUM FLYING WEIGHT				434		24561	10.5
53	LIMIT AIRPLANE LANDING SINKING SPEED-FT/SEC							9.0
54	WING LIFT ASSUMED FOR LANDING DESIGN CONDITION-%W							100%
55	STALL SPEED-LANDING CONFIGURATION-POWER OFF-KNOTS CLASSIFIED							
56	PRESSURIZED CABIN-ULT DESIGN PRESSURE DIFFERENTIAL-FLIGHT P.S.I.							10.8
57	AIRFRAME WEIGHT-AS DEFINED IN MIL-W-25140 (ASG)-LBS							14489

0 FOR INDIVIDUAL AIRPLANES REFER TO SFTY OF FLT SUPPLEMENTS OF FLT HANDBK
 * LBS OF SEA WATER - 64 LBS/CU FT *** PARALLEL TO CENTERLINE AIRPL
 PARALLEL TO + AT CENTERLINE AIRPL ***TOTAL USABLE CAPACITY

DETAIL WEIGHT STATEMENT

ACTUAL

CONTRACT	AF33 600-34814
AIRPLANE-GOVERNMENT NUMBER	AF58-759
AIRPLANE-CONTRACTOR NUMBER	8-24-70
MANUFACTURED BY	CONVAIR A DIVISION OF GENERAL DYNAMICS CORP.

ENGINE	MAIN	AUXILIARY
MANUFACTURED BY	PRATT + WHITNEY	
MODEL	J-75-P- 17	
NUMBER	ONE	

	MAIN PANEL	INTERM PANEL	OUTER PANEL
1			
2			
3			
4	99.8		
5	37.4		
6	111.4		
7	130.2		
8	120.0		
9	149.0		
10	67.1		
11	0.9		
12	31.0		
13	511.6		
14			
15			
16			
17			
18	21.7		
19	3.7		
20	46.3		
21	33.5		
22	9.5		
23	581.9		
24			
25			
26			
27			
28			
29	48.9		
30	26.1		
31	118.1		
32	91.1		
33	172.9		
34	21.4		
35	66.7		
36	81.7		
37			
38			
39	30.4		
40	40.0		
41			
42			
43			
44			
45			
46			
47			
48			
49	8.2		
50	114.5		
51			
52			
53			
54	30.6		
55	72.4		
56	2878.0		
57			2878.0

* THESE ARE INTEGRAL CAP-WEB-STIFFENER SPARS.

1	** *	X	XX	OPERATING MECHANISM				X
				LO P AREA	STRUCT	MECH +	POWER	
2				SQ FT	CONTROLS	TRANS		MECH
4								
5								
6								
7								
8								
9				53.4				
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24				1.8				
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
51				28.0				
52								
53				13.8				
54								
55				97.0				
56								
57								97.0

* TYPE OF POWER- H-HYD, F-FLEC, P-PNFU, POWER TRANSMISSION FROM MAIN DISTRIBUTION POINT TO ACTUATING UNIT

** INDICATE LOCATION OF MAJOR DOORS- CS, OP, IP, ETC

AN 9102-D-TAB
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WING GROUP
 CONTROL SURFACES

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	X FLEVONS		XX T.F. FLAPS		XX L.F. FLAPS		X
	INBOARD	OUTBOARD	INBOARD	OUTBOARD	INBOARD	OUTBOARD	
1							
2							
3							
4							
5	SPARS	16.2					
6							
7							
8							
9	RIBS	28.8					
10							
11							
12	COVER AND STIFFENERS	77.4					
13	-JOINTS, SPLICES + FAST.	4.5					
14							
15	T.F. STRIPS	59.1					
16							
17	FABRIC AND DOPE						
18							
19	FITTING-SPLIT FLEVON	2.5					
20							
21	TABS						
22							
23							
24							
25	TORQUE TUBES						
26							
27							
28							
29	BALANCE WEIGHTS + SUPPORTS						
30							
31	AERODYNAMIC SEALS						
32	BONDING JUMPERS	0.8					
33							
34	CONTROL HORNS	88.1					
35							
36							
37	ACCESS DOORS-NON STRUCT						
38							
39	HINGES AND PINS	19.0					
40	EXTERIOR FINISH						
41	TOTALS-SURFACE						
42							
43	CONTROL SURFACE SUPPORTS						
44	HINGES	30.6					
45	BRACKETS						
46	TRACKS						
47	CARRIAGES						
48							
49							
50							
51							
52							
53							
54	TOTALS-SUPPORTS						
55	COLUMN TOTALS		327.0				
56	PAGE TOTAL						
57	TOTAL-WING GROUP - PG 2-4						327.0 3302.0

	X STABILIZER		XX		FINS		X
	CENTER	OUTER	CENTER	OUTER	OUTER	DORSAL	
1							
2							
3							
4	SPAR-NO. 1 L. F.				9.2		
5*	-NO. 2				7.0		
6*	-NO. 3				51.3		
7*	-NO. 4				65.5		
8*	-NO. 5				51.3		
9	-INTERSPAR COVER				254.6		
10	-JOINTS, SPLICES + FAST.				26.9		
11	-AUXILIARY SPAR						
12							
13							
14	LOWER-FRONT SPAR CAP						
15	-INTERMEDIATE SPAR CAP						
16	-REAR SPAR CAP						
17	-AUXILIARY SPAR CAP						
18	-INTERSPAR COVER						
19	-SPANWISE STIFFENERS						
20	-JOINTS, SPLICES + FAST.						
21							
22							
23							
24	SPAR WEB + STIFF.-FRONT						
25	-INTERMEDIATE						
26	-REAR						
27	-AUXILIARY						
28	-JOINTS, SPLICES + FAST.						
29							
30							
31	INTERSPAR-RIBS				30.3		
32	-BULKHEADS						
33	-CHORDWISE STIFFENERS						
34	-JOINTS, SPLICES + FAST.				2.6		
35							
36	LEADING EDGE-COVER				23.2		
37	-STIFFENERS						
38	-RIBS				3.6		
39	-AUXILIARY SPARS						
40	-JOINTS, SPLICES + FAST.				9.7		
41							
42							
43							
44							
45							
46							
47							
48							
49	DRAG ANGLE				8.2		
50	TIPS				69.9		
51							
52							
53							
54	BOLTS-SPAR ATTACH TO RHD				1.7		
55	COLUMN TOTALS				615.0		
56	TOTAL-BASIC STRUCTURE						
57							615.0

*THESE ARE INTEGRAL CAP-WEB-STIFFENER SPARS.

1	** *	X	XX	OPERATING MECHANISM				X
	LO P AREA	STRUCT	MECH +	POWER	ACTUATOR	LOCK	EMERG	
2	SQ FT		CONTROLS	TRANS		MECH		
3								
4								
5	DOORS + FRAMES							
6	-LANDING							
7								
8								
9								
10	-ACCESS	0.4						
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28	PANFLS-NON STRUCTURAL							
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49	WALKWAYS, STEPS + GRIPS							
50	FAIRING AND FILLETS	3.6						
51								
52								
53	EXTERIOR FINISH	3.0						
54								
55	COLUMN TOTALS	7.0						
56	TOTAL-SECONDARY STRUCTURE						7.0	
57								

* TYPE OF POWER- H-HYD, E-ELEC, P-PNEU, POWER TRANSMISSION FROM MAIN DISTRIBUTION POINT TO ACTUATING UNIT

** INDICATE LOCATION OF MAJOR DOORS- CS, OP, IP, ETC

AN 9102-D-TAB
 NAME CONVAIP
 DATE 15 November 1959

TAIL GROUP
 CONTROL SURFACES

PAGE 16
 MODEL F-106A
 REPORT ZW-8-519

	X	XX	RUDDERS	X
1				
2				
3				
4 SPARS			CENTER	OUTER
5			2.9	
6				
7				
8 RIBS			13.2	
9				
10				
11				
12 COVER AND STIFFENERS			16.3	
13 -JOINTS, SPLICES + FAST.			3.4	
14				
15 T.F. STRIPS			1.2	
16				
17 FABRIC AND DOPE				
18				
19				
20				
21 TARS				
22				
23				
24				
25 TORQUE TUBES				
26				
27				
28				
29 BALANCE WEIGHTS + SUPPORTS				
30				
31 AERODYNAMIC SEALS				
32 BONDING JUMPERS			0.4	
33				
34 CONTROL HORNS			24.7	
35				
36				
37 ACCESS DOORS-NON STRUCT				
38				
39 HINGES AND PINS			5.3	
40 EXTERIOR FINISH				
41				
42 TOTALS-SURFACE				
43				
44 CONTROL SURFACE SUPPORTS				
45 HINGES			3.6	
46 BRACKETS				
47				
48				
49				
50				
51				
52				
53				
54 TOTALS-SUPPORTS				
55 COLUMN TOTALS			71.0	
56 PAGE TOTAL				
57 TOTAL-TAIL GROUP - PG 6-8				71.0 693.0

1	X	FUSELAGE OR HULL				XX
3	STATION	0-216	216-412	412-472	472-T.C.	DORSAL TAILCONE
4	*BULKHEADS + FRAMES					
5	-RADOME ATTACH. 41	3.5				
6	-FORWARD PRESSURE 102	19.5				
7	-AFT PRESSURE 172	51.6				
8	-FWD MISL. RAY+FUEL 217		50.1			
9	-AFT FUEL TANK 253		38.2			
10	-CENTER MISSILE RAY 316		67.2			
11	-WING 364		55.4			
12	-FUME TIGHT 412		27.7			
13	-WING ATTACH. 431			110.4		
14	-WING ATTACH 472			165.7		
15	-WING SPAR 5 520				97.0	
16	-WING SPAR 6 557				129.5	
17	-WING SPAR 7 593				46.4	
18	-FIN SPAR 3-CANTED 615				21.1	
19	-FIN SPAR 4-CANTED 645				16.5	
20	-FIN SPAR 5-CANTED 672				23.2	
21	-TAILCONE ATTACH-FWD+AFT					4.8
22						
23	MINOR FRAMES 0-216	67.6				
24	MINOR FRAMES 216-412		241.7			
25	MINOR FRAMES 412-472			72.1		
26	MINOR FRAMES 472-711				161.2	
27						
28	COVER-UPPER BETWEEN LONGN	13.0				21.8
29	-SIDE BETWEEN LONGERONS	61.6	194.1	44.9	179.3	28.3
30	-LOWER BETWEEN LONGERONS	22.2				
31						
32						
33	SKIN STIFF-SIDE BTWN LONGRNM				20.0	
34	TAILCONE ATTACH PARTS FUS					
35	MISSILE RAY STAR. ANGLES		13.6			
36	FITTINGS + BEAMS-ENG MT				39.8	
37	LONGERONS-UPPER	26.7	0.6	4.0		110.8
38	LONGERONS-LOWER	24.0	94.0		50.9	
39	LONGERONS-SIDE			1.4	36.8	
40	LONGERONS-TRUSS-LWR.			59.6		
41	LONGITUDINAL PARTITIONS	10.6				
42	JOINTS, SPLICES, FASTENERS	12.9	28.4	4.0	6.2	
43	FLOORING AND SUPPORTS	43.9				
44	SUPY BEAM-FLOOR+NLG	20.6				
45	ACCESS DOORS-ENGINE COMPT				50.3	
46	-STRUCTURAL		13.3	19.4	51.3	
47	-FWD RADAR COMPARTMENT	70.1				
48	-A.T.M.		20.9			
49	-SIDE RADAR COMPT.	56.2				
50	ARMAMENT STRUCTURE		32.1			
51	HORI? DIAPHRAGM-MISLE RAY		97.3			5.7
52	FUEL TANK ASSY					
53						
54	MISCELLANEOUS			13.7		5.3
55	COLUMN TOTALS	504.0	974.6	495.2	929.5	138.3
56	TOTAL-BASIC STRUCTURE					38.4
57						3080.0

* LIST ALL MAIN + WATERTIGHT BULKHEADS + FRAMES INDIVIDUALLY. MINOR FRAMES MAY BE COMBINED.

	X	FUSELAGE OR HULL	XX	XX	Y
		TAIL	RADOME	CANOPY +	BOOMS
		CONF	INSTL	WINDSHLD	SPEED
					BRAKES
4 ENCLOSURE-EXCL TURRET ENC					
5**CANOPY-PRESSURIZED				136.8	
6 CANOPY OPERATING MECH					
7 LATCHES				33.2	
8 AIR SPRING-REMOVER				2.1	
9 FLUID					
10 -SW INSTL-TAXI LOCK					
11 SEAL SYSTEM				9.6	
12 UNLOCK WARNING SYSTEM				1.4	
13 JETTISON EQUIPMENT				18.1	
14 EMERG. LATCH RELEASE				2.7	
15 CONTR UNIT-ELECT CANOPY				13.5	
16 SW-FUSE-REL-INSTL				6.6	
17**CANOPY-PRESS-CONTINUED				16.0	
18 WINDSHLD-				122.3	
19					
20 WINDOWS, PORTS-INCL FRAMES					
21					
22					
23					
24					
25					
26 RADOME AREA SQ FT 13.75			153.1		
27 ATTACHMENT-RADOME			3.1		
28 FLOORING AND SUPPORTS					
29					
30					
31 STAIRWAYS + LADDERS-FIXED					
32					
33					
34 STERNPOST AND FITTINGS					
35 NOSE BUMPER-HULL					
36 RUBBING STRIPS					
37					
38					
39					
40 TAIL CONF					
41					
42					
43 SPEED BRAKES-STRUCTURE					
44 -SUPPORTS					
45					
46					
47					
48					
49					
50					
51					
52					
53					
54					
55 COLUMN TOTALS			156.2	362.3	
56 PAGE TOTAL					
57					

* FROM MAIN DISTRIBUTION POINT TO ACTUATING UNIT.

**FOR COMPLETE CANOPY WEIGHT USE TOTAL OF LINE 5 + 17.

1	** *	X	OPERATING MECHANISM					X
			STRUCT	MECH +	POWER	ACTUATOR	LOCK	
2	LO P AREA			CONTROLS	TRANS		MECH	
3	ALL SQ FT							
4	F							
5	DOORS + FRAMES							
6	-LANDING-NOSE	H-P- 705	22.9	4.2	2.7	5.0		0.6
7	-LANDING-MAIN	H-P-2107	67.0	33.2	9.8	11.2		2.5
8								
9								
10	-BOMB							
11								
12								
13	-GUN							
14								
15	-AMMUNITION							
16								
17	-MISSILE STA	216-412	287.4	65.7	14.1	104.3		3.7
18								
19								
20								
21								
22								
23								
24	-WATERTIGHT							
25								
26	-CTR RADAR COMPT-LWR	601	15.3					
27								
28	-ENTRANCE							
29								
30								
31	-ACCESS		33.5					
32								
33								
34	-RAM AIR TURBINE		4.9					
35	-ENGINE							
36								
37	-CAMERA							
38								
39	PANELS-NON STRUCTURAL							
40	ENCLOSURE-RAM AIR TURBINE		7.7					
41								
42								
43								
44								
45								
46								
47								
48								
49	WALKWAYS, STEPS + GRIPS							
50								
51	FAIRING AND FILLETS		18.5					
52	EXTERIOR FINISH		19.8					
53								
54								
55	COLUMN TOTALS		477.0	103.1	26.6	120.5		6.8
56	PAGE TOTAL							734.0
57	TOTAL-BODY GROUP - PG 9-11							4401.0

* TYPE OF POWER- H-HYD, F-FLFC, P-PNEU, POWER TRANSMISSION FROM MAIN DISTRIBUTION POINT TO ACTUATING UNIT

** INDICATE LOCATION OF MAJOR DOORS- B-ROOM, F-FUSELAGE, H-HULL.

--INDICATES EMERGENCY SYSTEM

1 TYPE-TRICYCLE							
2							
3		LOCATION				MAIN	NOSE
4							
5		QUANTITY					
6	WHEELS	2 MAIN-2 NOSE				96.0	19.6
7	TIRES	2 MAIN-2 NOSE				102.0	16.0
8	TUBES	2 MAIN-2 NOSE				15.5	4.3
9	AIR					2.2	0.6
10	BRAKES	2 MAIN				190.0	
11							
12							
13	ANTI-SKID DEVICE						
14							
15	FLOATS-BULKHEADS						
16	-FRAMES						
17	-COVER						
18	-COVER STIFF.-LONG						
19	-KEELSONS						
20	-KEEL						
21	-LONGITUDINAL PARTITIONS						
22	-CHINE, SPRAY STRIP						
23	-STEP ASSEMBLY						
24	-POST ASSEMBLY						
25	-NOSE BUMPER						
26	INSPECTION DOORS						
27	WALKWAYS						
28	EXTERIOR FINISH						
29	SKIDS OR BUMPERS						
30	SKIS						
31							
32	TOTALS-RUNNING GEAR					405.7	40.5
33							
34	BRACES-DRAG					38.4	17.6
35	-SIDE					63.0	
36	-FLOAT						
37	PIVOT SHAFT					13.2	
38	SHOCK STRUT					374.2	70.6
39	-STRUT OIL						
40	-FORK						
41	-AXLE						
42	-TORQUE ARMS						
43	-TRUNNIONS						
44	STEER DAMP-INCL VALVE						32.8
45							
46	FITTINGS-MAIN ATTACH-WING					26.3	
47	-TAIL						
48	-BODY						9.7
49	-NACELLE						
50							
51	FAIRING						
52							
53							
54	PINS, BOLTS, NUTS, ETC						
55	COLUMN TOTALS					920.8	171.2
56	PAGE TOTAL						1092.0
57							

TIRE SIZE
 BRK ENERGY FT=1000/AIRPL
 BRAKE TYPE

30X8.8 18X4.4

4 ROTOR

1 LOCATION	X	MAIN	EMERG	XX	EMERG	X
2		BRAKE	OPER	RETRACT	EXTEN	
3		OPER	OPERN			
4						
5						
6 MECHANICAL OPERATING MECH						
7 CONTROLS	3.6	3.9				
8 ACTUATORS						
9						
10						
11						
12 ELECTRICAL OPERATING MECH						
13 CONTROLS	1.7					
14* CIRCUITRY	3.2					
15 OPERATING MOTORS						
16 MECHANISM						
17 SAFETY SYSTEM	2.5		0.2			
18						
19						
20 HYDRAULIC OPERATING MECH						
21 CONTROLS	5.1	4.7				
22* PLUMBING	5.0					
23 PUMPS						
24 RESERVOIRS						
25 ACCUMULATORS						
26 ACTUATORS	30.2					
27 MECHANISM						
28* FLUID	5.8	0.9				
29						
30						
31 PNEUMATIC OPERATING MECH						
32 CONTROLS		2.9	1.5			
33* PLUMBING INCLUDING AIR		13.8	3.4			
34 PUMPS						
35 BOTTLES-AIR						
36 ACTUATORS						
37 MECHANISM						
38						
39						
40						
41 LOCKING MECHANISM						
42 BRACES						
43 LINKS						
44 PARKING BRAKE CONTROL						
45 POSITION IND + WARN MECH	7.7					
46						
47						
48 SUPTS, GUIDES, ETC-WING	2.1					
49 -TAIL						
50 -BODY	0.7	1.1				
51 -NACELLE						
52						
53						
54						
55 COLUMN TOTALS	67.6	27.3	5.1			
56 PAGE TOTAL						100.0
57						

* FROM MAIN DISTRIBUTION POINT TO ACTUATING UNIT.

1	LOCATION	X	NOSE			XX		X
			STEERING	RETRACT	BRAKE OPER	EMERG EXTEN	RETRACT	
2								
3								
4								
5								
6	MECHANICAL OPERATING MECH							
7	CONTROLS			3.2				
8	ACTUATORS							
9								
10								
11								
12	ELECTRICAL OPERATING MECH							
13	CONTROLS	5.1	2.4					
14*	CIRCUITRY	0.5						
15	OPERATING MOTORS							
16	MECHANISM							
17								
18								
19								
20	HYDRAULIC OPERATING MECH							
21	CONTROLS	1.3	4.6					
22*	PLUMBING	2.5	1.0					
23	PUMPS							
24	RESERVOIRS							
25	ACCUMULATORS							
26	ACTUATORS		3.4					
27	MECHANISM	5.9						
28*	FLUID	0.8	0.5					
29								
30								
31	PNEUMATIC OPERATING MECH							
32	CONTROLS					1.4		
33*	PLUMBING					1.9		
34	PUMPS							
35	BOTTLES-AIR							
36	ACTUATORS							
37	MECHANISM							
38								
39								
40								
41	LOCKING MECHANISM							
42	BRACES							
43	LINKS							
44	PARKING BRAKE CONTROL							
45	POSITION INDICATING MECH		4.2					
46								
47								
48	SUPTS, GUIDES, ETC-WING							
49	-TAIL							
50	-BODY	0.1	1.2					
51	-NACELLE							
52	-LANDING GEAR							
53								
54								
55	COLUMN TOTALS	16.2	20.5			3.3		
56	PAGE TOTAL							40.0
57	TOTAL-ALIGHTING GEAR GROUP - PG 12-14							1232.0

* FROM MAIN DISTRIBUTION POINT TO ACTUATING UNIT.

			YAW +		
			PITCH DAMPER	COCKPIT CONTROLS	PILOT ASSIST
1					
2					
3					
4	CONTROL COLUMN OR STICK				
5	** - PILOT			9.9	
6	- ASSISTANT PILOT				
7	- CONNECTING MEMBERS				
8	- SUPPORTS			2.6	
9					
10	- COUNTERBALANCE - SIDE			13.9	
11					
12					
13	RUDDER PEDALS + BRK TREAD				
14	- PILOT			7.8	
15	- ASSISTANT PILOT				
16	- CONNECTING MEMBERS				
17	- SUPPORTS			2.3	
18					
19					
20					
21					
22					
23	INTEGRAL PARKING LOCK				
24	YAW + PITCH - CONTROLLER				
25	- AMPLIFIER		23.7		
26	- GYROS		7.0		
27					
28*	- CIRCUITRY		13.4		
29					
30	- PITCH G LIMITER		16.3		
31	- DETECTOR - SIDE SLIP				
32	- SUPPORTS + MOUNTS		3.3		
33	AUTOPILOT - TYPE -				
34*	CIRCUITRY				
35	TRANSMITTER				
36	SERVO AMPLIFIER				
37	SERVO MOTORS				
38	GYROS				
39					
40	FOLLOW-UP CONTROLS				1.8
41					
42					
43					
44	YAW + PITCH DAMPER - ELEC				
45	SERVO SHUTOFF VALVES				
46	SUPPORTS AND BRACKETS				
47					
48*	PLUMBING				
49*	FLUID				
50*	ELEC PANELS + CIRCUITRY				
51	PULLEYS, SPROCKETS, ETC				
52					
53					
54					
55	COLUMN TOTALS		63.7	36.5	1.8
56	TOTAL - COCKPIT CONTROLS + AUTOPILOT				102.0
57					

* FROM MAIN DISTRIBUTION POINT TO ACTUATING UNIT.

** HAND YOKE INCLUDED UNDER ELECTRONICS MX-1179 COCKPIT

COMPONENTS

	AILERON	ELEVON	RUDDER	T.F. FLAPS	SPOILERS	SPEED BRAKES
1						
2						
3						
4						
5	MECHANICAL OPERATING MECH					
6	CONTROLS					
7		27.9	12.8			
8		19.2	3.0			
9	TRIM CONTROLS					
10			0.2			
11	ELECTRICAL OPERATING MECH					
12	**TYPE-D					
13	CONTROLS					
14*						2.8
15	OPERATING MOTORS					
16	MECHANISM					
17		14.5	7.1			
18	RATIO CHANGER					
19	HYDRAULIC OPERATING MECH					
20	**TYPE-D					
21		16.5	0.3			3.9
22*		18.8	9.6			3.5
23	PUMPS					
24	RESERVOIRS					
25	ACCUMULATORS					
26		45.0	18.2			14.0
27	MECHANISM-ACTUATING CYLS					
28	TRIM CONTROLS					
29*		6.7	0.7			1.4
30						
31	PNEUMATIC OPERATING MECH					
32	**TYPE					
33	CONTROLS					
34*	PLUMBING					
35	PUMPS					
36	BOTTLES-AIR					
37	ACTUATORS					
38	MECHANISM					
39	TRIM CONTROLS					
40						
41	ARTIFICIAL FEEL					
42	BUNGEE					
43	ROB WEIGHT					
44		37.3	5.1			
45		1.8				
46	SHIELDS-HIGH TEMPERATURE					
47						
48	SUPPORTS, GUIDES, ETC-WING					
49	-TAIL					
50		38.7	8.7			0.7
51	-NACELLE					
52		10.1				
53		0.2	1.5			
54						
55	COLUMN TOTALS					
56		246.6	70.1			26.3
57	PAGE TOTAL					
58	TOTAL-SURFACE CONTROLS GROUP - PG 15-16					
						343.0
						445.0

* FROM MAIN DISTRIBUTION POINT TO ACTUATING UNIT.
 ** TYPE- ADD P-POWERED OR B-BOOST.

				INBOARD	CENTER	OUTBOARD
1						
2						
3						
4	ENGINE MOUNT-FORWARD			12.1		
5	AFT			19.4		
6	SUPPORT BAY					
7	VIBRATION ABSORBERS					
8						
9						
10	NACELLE STRUCTURE					
11	BULKHEADS AND FRAMES					
12	COVER AND STIFFENERS					
13	FITTINGS					
14	LONGERONS					
15	ATTACHING ANGLES, ETC					
16						
17						
18						
19	PYLON AND STRUTS					
20						
21						
22						
23	*FIREWALL					
24						
25	FIRE PROTECTION SHROUDS					
26						
27	COWLING					
28	ENGINE COWL					
29						
30						
31						
32						
33						
34						
35	BAFFLES					
36	ACCESSORY COWL OR SKIRT					
37	COWL FLAPS					
38	COWL FLAP CONT + MECH					
39						
40						
41						
42						
43						
44						
45	FAIRING-NAC TO WING-PYLON					
46	STEPS AND GRIPS					
47	WORKING PLATFORMS-BUILT IN					
48	INTERNAL WALKWAYS					
49						
50						
51	INSTALLATION HARDWARE					
52						
53						
54	BRACKETS-TRACK-ENG REMOVAL					
55	COLUMN TOTALS			7.5		
56	PAGE TOTAL			39.0		
57	TOTAL-ENGINE SECTION OR NACELLE GROUP - PG 18					39.0
						39.0

* IF IN NACELLE OR NON STRUCTURAL IN WING OR BODY

	ENGINE INSTL	GEAR BOX + DRIVES	SUPER- CHARGER	** AIR INDUCT.	EXHAUST SYSTEM	COOLING SYSTEM
1						
2						
3						
4	ENGINE INSTALLATION					
5	* ENGINE					
6	AFTERBURNER					
7	* ENGINE AND AFTERBURNER					
8	5816.0					
9	REDUCTION GEAR BOX					
10	EXTENSION DRIVE SHAFT					
11	ACCESS. GEAR BOX + DRIVES					
12						
13	SUPERCHARGER-FOR TURBOS					
14	LUBRICATING SYSTEM					
15	SUPPORTS					
16	CONTROLS					
17	PIPING-EXH TO SUPCHGR					
18						
19	** AIR INDUCTION SYSTEM					
20	INTERCOOLERS + SUPPORTS					
21	AIR DUCTS AND SHROUDING					
22	INTAKE DOORS + CONTROLS					
23	AIR FILTERS					
24	SCREENS AND CONTROLS					
25						
26						
27						
28	EXHAUST SYSTEM					
29	EXHAUST STACKS					
30	EXHAUST COLLECTORS					
31	COLLECTOR OR ENG SHROUD					
32	TAILPIPE					
33	ENGINE SHROUD + INSUL					
34	TAIL CONE					
35	SILENCING DEVICES					
36	SUPPORTS, BRACKETS, ETC					
37						
38						
39	COOLING SYSTEM					
40	RADIATOR AND SUPPORTS					
41	DUCTS-ENGINE SHROUD					
42	EXPANSION TANK + SUPTS					
43	LIQ IN SYSTEM- GAL					
44	PIPING, VENTS, CLAMPS, ETC					
45	JET PUMP SYSTEM					
46	INSULATION-STRUCTURE					
47	FANS					
48	CONTRAVANES					
49	FAN DRIVES					
50	CONTROLS + OPER MECH					
51						
52						
53						
54						
55	5816.0				320.6	44.4
56	PAGE TOTAL					
57						
						6181.0

* AS INSTALLED WEIGHT
 ** SEE PAGE 20A

	INLET	STA 280-	STA 316-	STA 428-	STA 472-	FAIRING
	STA 245	STA 316	STA 428	STA 472	AFT	
	STA 280					
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19	ENGINE AIR DUCTS					
20	SKIN-INTERIOR	38.7	44.1	133.8	17.8	
21	-EXTERIOR	28.7	20.7			
22	ENGINE NOSE FAIRING					
23	RIBS, FRAMES + STIFF.	101.7	50.6	64.3		
24	FITTINGS	61.9				
25	CLIPS + ANGLES			9.0	2.6	
26	STANDARD PARTS	1.7			2.0	
27	SEALS + RETAINERS					8.9
28	SUPPORTS					
29	SCROLL				23.2	
30	DUCTS-BOUNDARY LAYER	11.8	7.2			
31	VARIABLE RAMP-BLEED	20.8				
32						
33	-DUCTS + STRUCTURE		202.3			
34	-MECH		79.2			
35						
36	-OPERATING SYSTEM		12.8			
37	-EMERG OPER SYSTEM		15.1			
38						
39	ENGINE NOSE FAIRING					10.0
40						
41						
42						
43						
44						
45						
46						
47						
48	COMPRESSOR RELIEF SYSTEM					
49	DUCTS					6.1
50						
51						
52						
53	INTERIOR FINISH					
54						
55	COLUMN TOTALS	265.3	432.0	207.1	45.6	15.0
56	PAGE TOTAL					10.0
57						975.0

1	X AUXILIARY		XX MAIN		X
	LUBRI-CATING	FUEL	LUBRI-CATING	FUEL	
2	TANKS (WING FUEL TANKS ARE				
3	INTEGRAL TO THE WING AND				
4	ARE INCLUDED IN THE WING				
5	WEIGHTS, FUSELAGE FUEL				
6	TANKS ARE INTEGRAL TO THE				
7	FUSELAGE AND ARE INCLUDED				
8	IN THE FUSELAGE WEIGHTS,				
9	FOR CAPACITIES SEE PAGE 88,				
10	OIL TANKS CONCERNED ARE				
11	INTEGRAL TO THE ENGINE AND				
12	ARE INCLUDED IN THE				
13	ENGINE WEIGHTS.)				
14					
15	VENT SYSTEM-F TANK				36.1
16	-WING TANKS-INTERNAL				54.7
17					
18					
19					
20	INTEG TANK SEALS + SEALANT				101.4
21	BACKING BOARD				
22	TANK SUPPORTS AND PADDING				
23	TANK BAY SEALING				
24					
25	TANK RELEASE AND CONTROLS		39.7		
26	OIL COOLING INSTALLATION				
27	* COOLERS AND SUPPORTS	10.9			
28	DUCTS AND SHUTTERS	10.9			
29	AUTO OIL TEMP VALVE				
30	SHUTTER CONTROLS	13.6			
31	SCUPPER-FILLER			1.1	
32	FUEL VAPOR RECOVERY				
33					
34	OIL DILUTION SYSTEM				
35	OIL BREATHER			1.9	
36	VAPOR INERTION-CYL + SUPT				
37	-GENERATOR				
38	-CONTROLS				
39	PUMP INSTALLATION QTY				
40	ENGINE DRIVEN				
41	BOOSTER 4				44.8
42	HAND-INCL CONTROLS				
43	C.G. CONT.-TRNS. SYST.-BODY				115.2
44	-WING				86.2
45	C.G. CONTR. BLEED AIR SYST				62.0
46	FILLING SYSTEM-GROUND				31.5
47	-IN FLIGHT				
48	WARNING SYSTEMS LOW PRESSURE			1.6	18.1
49	DISTRIBUTION SYSTEM	9.3			78.2
50	TRANSFER SYSTEM		8.7		53.4
51	VENT SYSTEM				
52	PRESSURIZATION SYSTEM		18.6		13.7
53	SCAVENCE SYSTEM				5.3
54	DRAINS			1.2	9.4
55	COLUMN TOTALS	45.2	67.0	5.8	710.0
56	PAGE TOTAL				828.0
57					

* AUXILIARY OIL COOLER-QTY 1,
 **MAIN OIL COOLER INTEGRAL WITH ENGINE

			WATER INJECT.	ENGINE CONTROLS	STARTING SYSTEM	PROP INSTL	
1							
2							
3							
4	WATER INJECTION SYSTEM						
5	* TANKS						
6	PUMPS						
7	METERING UNIT						
8	VALVES AND PLUMBING						
9	CONTROLS						
10							
11							
12	ENGINE CONTROLS						
13	IGNITION						2.3
14	THROTTLE						21.3
15	AUTOMATIC THROTTLE ACTU						
16	***SUPERCHARGER						
17	AFTERBURNER						4.4
18							
19							
20	STARTING SYSTEM						
21	POWER UNIT-TYPE						
22	STARTER-TYPE-COMBUSTION						48.4
23	STARTER CONTROLS						
24	CRANK AND EXTENSION						
25	PLUG + RCPT-QUICK DISC.						
26	MESHING SOLENOID						
27	CIRCUITRY						3.9
28	DUCT - EXHAUST						1.1
29	VALVES + PLUMBING						5.1
30	SHROUD + INSULATION						
31							
32	PROPELLER INSTL-DIA						
33	PROPELLER-QTY						
34	CHIFFS						
35	SPINNER						
36	CONTROLS-TYPE GFAF						
37	SPEED						
38	PITCH						
39	FEATHER						
40	REVERSE						
41							
42							
43							
44							
45							
46							
47	**OIL GAL						0.5
48	**TANK AND PLUMBING						
49							
50							
51							
52							
53							
54							
55	COLUMN TOTALS						28.0 59.0
56	PAGE TOTAL						
57	TOTAL-PROPULSION GROUP - PG 20, 20A, 22 + 23						87.0 8071.0

* WATER TANKS-QTY , GAL PER TANK
 ** WHEN SEPARATE OIL SYSTEM IS USED.
 ***SUPERCHARGER INTEGRAL WITH ENGINE.

AN 9102-D-TAB
 NAME CONVAIR
 DATE 15 November 1959

INSTRUMENT AND NAVIGATIONAL
 EQUIPMENT GROUP
 INSTRUMENTS

PAGE 30
 MODEL F-106A
 REPORT ZW-8-519

							X INSTRMT	
1	2FUNCTIONAL GROUPS				TRANSM		POWER	
3	AND ITEMS	QTY		INDIC	+ AMPL	INSTL	SYSTEM	
4								
5								
6	AIR SPEED-STANDBY			1.0		6.7		
7	AIR SPEED-MACHMETER	1		10.1	11.2	3.9		
8	ALTIMETER			1.5				
9	GYRO HORIZON			7.9		0.1		
10								
11	ATF MC-1							
12	COMPASS				43.7	9.4		
13	ACCELEROMETER							
14	HORIZ SITUATION	60-6308		7.9	3.8	0.6		
15								
16	ALTIMETER-VERT SPEED			10.0	7.7	0.6		
17								
18								
19								
20	STANDBY COMPASS	1		0.7		0.2		
21								
22								
23								
24	CLOCK	1		0.5				
25	PRESS RATIO IND SYSTEM	1,1		1.2	5.5	6.3		
26	FREE AIR TEMP IND SYSTEM					0.4		
27								
28								
29								
30	CORRECTION CARD							
31	REFERENCE CARDS							
32								
33								
34	MACH INLET DUCT							
35	TURBINE OUTLET TEMP,	1		0.8		6.0		
36	FUEL QUANTITY SYSTEM	1		1.5	4.1	14.1		
37	TACHOMETER	1,1		0.8	0.5	1.1		
38								
39	HYDRAULIC PRESSURE	1,2		0.4	2.4	3.0		
40	OIL PRESS			0.4	1.4	2.1		
41								
42	FUEL FLOWMETER	1,1		0.5	7.5	0.7		
43								
44								
45								
46								
47	OXYGEN QUANTITY SYSTEM					0.2		
48								
49								
50								
51								
52								
53	POWER SYSTEM						0.8	
54	STANDARD PARTS							
55	COLUMN TOTALS					0.8		
56	TOTAL-INSTRUMENTS			45.2	87.8	56.2	0.8	
57	TOTAL-INSTRUMENT AND NAVIGATIONAL GROUP - PG 26							190.0

LIST ITEMS BY FUNCTIONAL GROUPS- FLIGHT, ENGINE + MISC. LIST SUB-GROUPS BY CREW STATION. ADD SUPPLEMENTAL PAGE 26A IF NECESSARY.

	X HYDRAULIC		XX	PNEUMATIC		X
	UTILITY	EMERG		UTILITY	EMERG	
1						
2						
3						
4	PUMPS, COMPRESSORS MODEL					
5	PUMPS - VARIABLE VOLUME	56.4				
6	COMPRESSOR					
7	RAM AIR TURBINE		13.0			
8	ACTUATION-RAM AIR TURBINE		4.3			
9	MECHANISM-RAM AIR TURBINE		1.7			
10	CONTROLS-RAM AIR TURBINE		1.4			
11						
12	REMOTE PUMP DRIVES					
13	QTY CAP, EA					
14	RESERVOIRS, SECONDARY 1 400	12.1				
15	RESERVOIRS, PRIMARY 1 400	11.1				
16	AIR BOTTLES 2 2380			93.5		
17	AIR IN BOTTLES			42.8		
18						
19	ACCUMULATORS 2	9.3				
20	AIR IN ACCUMULATORS	0.2				
21	FILTERS	3.4				
22	PRESSURE REGULATORS			3.2		
23	RESERVOIR PRESSURE SYSTEM	5.2				
24	VALVES	4.8	1.3	5.9		
25						
26	SHROUDING + COOLING	29.0				
27						
28						
29						
30	CONTROLS			0.6		
31						
32						
33						
34	LOW PRESSURE WARNING	5.8		0.4		
35	PLUMBING	41.6	4.4	22.5		
36						
37						
38	FLUID IN SYSTEM	39.0	0.6			
39	TYPE					
40	CAPACITY GAL					
41						
42	SUPPORTS-WING					
43	-TAIL	0.1				
44	-BODY	9.6	1.1	6.7		
45	-NACELLE					
46	FURNISHES POWER FOR **					
47	HYDRAULICS SYSTEM OPERATES LANDING GEAR AND DOORS, FLIGHT CONTROL SURFACES,					
48	SPEED BRAKES, VARIABLE RAMP, RAM AIR TURBINE, AND EMERGENCY AC GENERATOR.					
49						
50	PNEUMATIC SYSTEM OPERATES MISSILE BAY DOORS, LAUNCHING GEAR, DRAG CHUTE,					
51	COMBUSTION STARTER, LANDING GEAR BRAKES, RAT EXTENSION SYSTEM, RUDER					
52	ARTIFICIAL FEEL SYSTEM, AND THE FOLLOWING EMERGENCY SYSTEMS: LANDING GEAR					
53	AND DOORS, SPEEDBRAKES, FUEL TRANSFER, COCKPIT PRESSURIZATION, VARIABLE					
54	RAMP RETRACTION, AND CONTROL OF CSD AIR-OIL COOLER AIR VALVE.					
55	COLUMN TOTALS	227.6	27.8	175.6		
56	PAGE TOTAL					
57	TOTAL-HYDRAULIC AND PNEUMATIC GROUP					431.0
						431.0

SYSTEM PRESSURE PSI 3000 3000 3000

* INCLUDES SYSTEM FROM SOURCES OF POWER TO MAIN DISTRIBUTION POINTS.

** LIST ITEMS AND INDICATE H-HYDRAULIC, P-PNEUMATIC

	POWER SUPPLY	POWER CONVER	DISTR + CONT	LIGHTS-SIGNALS	EQUIP. SUPPORTS
1					
2					
3					
4	POWER SUPPLY *KVA VOLT QTY				
5	GENERATORS				
6	EMERG GEN 3.5 120/208 1	17.5			
7	ALTERNATOR 22 120/208 1	49.6			
8					
9					
10	REMOTE GENERATOR DRIVES	226.2			
11	EMRGNCY GENERATOR DRIVE	12.0			
12					
13					
14	POWER CONVERSION QTY				
15	CONVERTER AC-DC				
16	TRANSFORMER				
17	RECTIFIER				
18	MOTOR-GENERATOR				
19	PHASE ADAPTER				
20	FREQUENCY CONVERTER				
21					
22					
23					
24	POWER DISTRIBUTION + CONT				
25	GENERATOR CONTROL BOXES		5.3		
26	CUTOUPS, VOLT. REGULATORS		21.0		
27	AMMETERS AND VOLTMETERS				
28	SWITCHES, RHEO + PANELS		0.2		
29	CIRCUIT BREAKERS + FUSES		0.2		
30	BOXES + PANELS		1.4		
31	RECEPT + CONNECTOR PLUGS		14.7		
32	RELAYS		5.8		
33	WIRING		29.4		
34	CONDUIT		0.3		
35					
36	LIGHTS AND SIGNAL DEVICES				
37	LIGHTS-INTERIOR			8.6	
38	-EXTERIOR			9.7	
39	-LANDING-INCL MECH				
40					
41	SIGNAL DEVICES-LIGHTS				
42	-HORNS				
43	-BELLS				
44					
45	EQUIPMENT SUPPORTS-WING				
46	-TAIL				
47	-BODY				
48					64.1
49	FURNISHES POWER FOR				
50					
51					
52					
53					
54					
55	COLUMN TOTALS	305.3	78.3	18.3	64.1
56	TOTAL-AC SYSTEM				466.0
57	SECONDARY				

* DRIVEN BY- 5 , 6 HYDRAULICS 7 ENGINE , 8 , 9
 ** INCLUDES SYSTEM FROM SOURCE OF POWER TO MAIN DISTRIBUTION POINTS.

AN 9102-D-TAR
 NAME CONVAIR
 DATE 15 November 1959

** ELECTRICAL GROUP
 D.C. SYSTEM

PAGE 33
 MODEL F-106A
 REPORT ZW-8-519

	POWER SUPPLY	POWER CONVER	DISTR + CONT	LIGHTS- SIGNALS	EQUIP. SUPPORTS
1					
2					
3					
4	POWER SUPPLY *VOLT AMP QTY				
5	GENERATORS				
6	GENERATOR-100 AMP	37.5			
7					
8					
9					
10	REMOTE GENERATOR DRIVES				
11	BATTERY--	31.0			
12	BATTERY CONTAINER, SUPTS	0.5			
13					
14	POWER CONVERSION QTY				
15	INVERTER DC-AC				
16	MOTOR-GENERATOR				
17					
18					
19					
20					
21					
22					
23					
24	POWER DISTRIBUTION + CONT				
25	GENERATOR CONTROL BOXES				
26	CUTOUTS, VOLT, REGULATORS		6.0		
27	AMMETERS AND VOLTMETERS				
28	SWITCHES, RHEO + PANELS		0.1		
29	CIRCUIT BREAKERS + FUSES		0.7		
30	JUNCT, FUSE + DIST BOXES				
31	RECEPT + CONNECTOR PLUGS		0.2		
32	RELAYS		2.2		
33	WIRING		13.9		
34	CONDUIT				
35					
36	LIGHTS AND SIGNAL DEVICES				
37	LIGHTS-INTERIOR			8.9	
38	-EXTERIOR-TAIL			13.3	
39	-LANDING-INCL MECH			7.7	
40	-STOWAGE-SPARE LAMP				
41	SIGNAL DEVICES-LIGHTS			7.1	
42	-HORNS				
43	-BELLS				
44					
45	EQUIPMENT SUPPORTS-WING				
46	-TAIL				
47	-BODY				
48	-NACELLE				10.9
49	FURNISHES POWER FOR				
50					
51					
52					
53					
54					
55	COLUMN TOTALS	69.0	23.1	37.0	10.9
56	TOTAL-DC SYSTEM				140.0
57	TOTAL ELECTRICAL GROUP - PG 29-30				606.0

* DRIVEN BY- 5 , 6 ENGINE , 7 , 8 , 9
 ** INCLUDES SYSTEM FROM SOURCE OF POWER TO MAIN DISTRIBUTION POINTS.

1*EQUIPMENT COMPONENTS AND				X EQUIPMENT	XY	X
2 PART NUMBERS OR IDENT				MA-1		
3 LIST BY FUNCTIONAL GROUPS				GEAF	CEE	INSTL
4 RADAR						
5 SILICA DESS. 463097				3.8		
6 DEHYDRATOR 463097				3.8		
7 SYNCH-MASTER TIMER 464003				5.6		
8 WAVEGUIDE 464016				1.0		
9 ANTENNA 464017				72.5		
10 CONVERTER-AGC 464020				7.1		
11 GAGE-PRESSURE 464024				1.8		
12 AMP-TORQ. RATE GYRO 464041				10.3		
13 COMPRESSOR-AIR 464045				8.2		
14 SWITCH BOX-TEST 464063				3.1		
15 TRANSCETIVER 464065				170.0		
16 GATE-CUTTER 464082				6.5		
17 COUPLER-DRCTNL 464084				0.6		
18 OSCILLATOR-REPET 464203				3.0		
19 AMPL-VID-TRACK 464095				5.5		
20 TEST SET -1 464096				3.3		
21 SYNCH-RANGE TRACK 464103				6.8		
22 AMP-AZIMUTH DRIVE 464106				10.3		
23 VALVE-PFG-PRESS 464107				2.5		
24 AMPL-ANT-TRACK 464141				10.0		
25 COMPARATOR-ANTI 464150				7.2		
26 DUCT-COOL RCVR 464190				3.6		
27 AMP-SWP-GEN-IND 464195				6.5		
28 TEST SET-2 464196				2.6		
29 AMPL-ANT-SERVO 464206				7.8		
30 CNVRTR-ATCK DSPLY 464223				8.4		
31 AMPL-ANT. CONTR 464241				10.6		
32 AMP-INTERMED FREQ 464295				5.0		
33 WAVEGUIDE 464316				1.2		
34 AMP-FILT STEER SIG 464341				8.4		
35 CMPUTR-STEER SIG 464346				6.6		
36 GEN-SWEEP IND 464380				5.8		
37 AMP-MOD-ATK DSPLY 464395				7.0		
38 FILTER BAND PASS 464425				12.6		
39 AMP SYNCH-ANTI 464495				4.4		
40 AMP-ELEV. DRIVE 464506				9.0		
41 CNVRTR-TIME SHAR 464523				7.9		
42 OSCILLATOR RATE 464093				3.3		
43 FSTNR-MA-1 ANT				1.4		
44 TUBING-RADAR						
45						
46						
47						
48						
49						
50						
51						
52						
53						
54						
55 COLUMN TOTALS				455.0		
56 PAGE TOTAL						455.0
57						

* LIST COMPONENTS- INCL RADOMES, MTS, ANT, SWITCHES, RELAYS, FILTERS, ETC FROM MAIN DISTRIBUTION POINT TO UNIT OPERATED, BY FUNCTIONAL GROUPS-F.G. COM, VHF, SEARCH, NAV, INTERCOMM, ETC. ADD SUPPLEMENTAL PG 31A IF NEC.

			X	EQUIPMENT	XX	X
				MA-1		
				GEAF	CFE	INSTL
4	COMPUTER					
5	CNVTR-AC-INPUT	464023		9.5		
6	CMPRTR-ANLG DIGT	464050		9.3		
7	SWITCH-ANALG-SAMP	464051		7.2		
8	MEMORY-MAG. DRUM	464057		32.6		
9	RELAY-DIG. OUTPUT	464064		14.6		
10	CONVERTER-ANALG-DC	464123		13.9		
11	COMPUTER-ARITH. DIG	464146		25.8		
12	MEMORY-SHIFT REG.	464157		11.7		
13	CONTROL-DATA	464255		23.4		
14	TEST SFT-DIG	464296		12.6		
15	INTERCONNECT BOX	464318		5.7		
16	CNVTRP-SIG DATA	464323		9.6		
17	COMPUTER-DIG CONT	464446		20.5		
18	AMP-MEMORY READ	464457		17.8		
19	GENERATOR-PULSE-CL	464489		6.5		
20	GATES-DIODE	464657		9.3		
21						
22						
23						
24	FLIGHT CONTROL SYSTEM					
25	AMPLIFIER-AERO	464021		6.2		
26	AMP-CONT SURF	464121		11.9		
27	GYRO-R+O RATE	464127		3.8		
28	ACCELEROMETER	464161		3.4		
29	AMP-NAV+APPROCH	464221		13.6		
30	AMP-ATTD MEM	464321		12.3		
31	AMP-STEEP CNVRTR	464421		12.4		
32	AMP-AUTO. ATTCK	464621		12.4		
33						
34						
35						
36						
37	MISSILE SUB-SYSTEM					
38	CONTROL-GYRO	464008		11.5		
39	CHANNEL SFL AFC	464043		7.6		
40	PWR SUP SPEC ARM	464087		8.2		
41	RFL ARM CONT	464264		7.5		
42	AMPLIFIER-ANT	464266		9.3		
43	RFL-PRMTR SFT	464364		10.5		
44	AMP-MIS ANT TEST	464366		5.3		
45	RELAY-MODE SFL	464464		6.3		
46	TEST SFT-ARM	464496		4.8		
47	PNL-TEST ELECT ARM	464596		3.5		
48	AMP-XMTR TUNE	464866		13.5		
49						
50						
51						
52						
53						
54						
55	COLUMN TOTALS			394.0		
56	PAGE TOTAL					394.0
57						

			X	EQUIPMENT	XX	X	
				MA-1			
			GEAF	GEAF	CFE	IN STL	
4	FLIGHT SENSING SYSTEM						
5	AMP-IMPACT TEMP						
6	AMP-INTEGRATOR	464009		14.5			
7	ACCELEROMETER	464061		2.2			
8	AMPLIFIER-RLL+PTCH	464109		8.4			
9	DEMODULATOR	464209		3.8			
10	STABLE ELEMENT	464289		55.8			
11	AMPL-AZIMUTH	464309		12.6			
12	CNVTR-SIG DAT ALT	464320		5.0			
13	TEST SET C + N	464396		8.0			
14	J-BOX + LAT COUNT	464409		8.1			
15	CONVRTR-AIR DATA	464420		36.5			
16	COMPUTER-AIR DATA	464646		26.0			
17	CMPNSTR-AIR DATA	464721		9.1			
18							
19							
20							
21	COMM NAV + LANDING SYSTEM						
22	XMTR COMM UHF	464059		23.0			
23	RCVR DATA LINK	464667		26.2			
24	ANT-ADF	464117		10.8			
25	RCVR-TACAN	464129		25.3			
26	RCVR-UHF	464167		26.0			
27	TUNER-RF UHF	464225		9.5			
28	MOD CODER-TACAN	464229		16.0			
29	RCVR R-771/ARN-51	464267		9.5			
30	RANGE XMTR-TACAN	464329		12.6			
31	RCVR R-772/ARN-51	464367		8.5			
32	PWR SUPPLY	464392		12.2			
33	BEARING XMTR TACAN	464429		14.8			
34	AMPL-ADF	464606		9.6			
35	CNVTR-TIME DIV	464220					
36							
37							
38							
39	MULTIPLEXING IFF TACAN						
40	BROFICON RCVR						
41	ANT-BRFCN						
42	INTERPHONE JACK						
43	FLT DIR CMPTR	60-6309					
44	XMTR RT TURN GYRO	60-6311					
45	ACCEL	60-6300					
46	GYRO-SW, RT	60-5938					
47							
48							
49	WINDOW-ADF ANTENNA						
50	ANTENNA						
51							
52							
53							
54							
55	COLUMN TOTALS			394.0			
56	PAGE TOTAL					394.0	
57							

			X	EQUIPMENT	XX	X
				MA-1		
				GFAE	CFE	SUPPORT
5	POWER SUPPLY					
6	INTERCONNECT BX 1	464018		6.8		
7	REACTOR-(2)40 MH	464035		25.8		
8	RFLAY	464062		5.3		
9	GENERATOR-AC/DC	464089		69.4		
10	FILTER DC + 300V	464092		5.3		
11	INTERCONNECT BX 2	464118		6.3		
12						
13	REACTOR-100 MH	464135		10.8		
14	RELAY-PWR XFER	464162		25.2		
15	GENERATOR-DC	464189		31.0		
16	PWR SUPPLY-250V	464192		20.6		
17						
18	REGULATOR-+ 100V	464292		4.3		
19	POWER SUPPLU-DC	464326		10.3		
20	REGULATOR-115/55V	464491		10.8		
21	FILTER, DC + 300V	464591		6.8		
22	REGULATOR-DC+28V	464692		12.8		
23	FILTER-DC-140V	464791		5.3		
24	REGULATOR-DC+150V	464792		10.0		
25	FILTER-DC-150V	464891		3.9		
26	REG-400/1600CPS	464892		21.8		
27	FILTER DC + 150V	464991		4.5		
28						
29						
30						
31						
32	MISCELLANEOUS					
33	RECORDER + RACK	464149		25.0		
34	PANEL-TEST CONTROL	464796		2.0		
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						
47						
48						
49						
50						
51						
52						
53						
54						
55	COLUMN TOTALS			324.0		
56	PAGE TOTAL					324.0
57						

			X	EQUIPMENT	XX	X
				MA-1		
				GFAE	CFE	INSTL
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11	IDENTIFICATION IR					
12	DUPLEXER CU-	464032		3.9		
13	ISOLATOR(2)	464079		1.6		
14	AMP-OSCILL	464108		5.6		
15	WAVEGUIDE	464116		1.9		
16	DUPLEXER CU-462	464132		4.6		
17	SW-WAVEGUIDE	464152		3.0		
18	TRANSMITTER	464159		9.1		
19	DET RADAR SIG	464279		0.4		
20	COUPLER CU	464284		0.3		
21	SYNCHRONIZER	464303		5.3		
22						
23	AMP-CONVERTER	464566		7.1		
24	AMP-SYNCH	464567		8.2		
25	IDENTIFICATION XP					
26	ISOLATOR(2)	464079		1.6		
27	AMP-OSCILL	464108		5.3		
28	TRANSMITTER-T-425	464159		9.1		
29	DUPLEXER-CU-460	464232		3.9		
30	SW-WAVEGUIDE	464252		3.0		
31	DET-RADAR SIGNAL	464279		0.4		
32	CAVITY-TUNED	464332		2.6		
33	SYNCHR-AMP	464333		7.5		
34						
35	COUPLER-CU-457	464384		0.5		
36	CONTROL AMP, CONV.	464666		7.1		
37						
38	IDENTIFICATION-GRND-AIR					
39	CODER-DECODER	464028		12.6		
40	SW-RF XMSSN	464263		6.1		
41	XCVR-XMTR	464265		29.3		
42						
43						
44						
45						
46						
47						
48						
49						
50						
51						
52						
53						
54						
55	COLUMN TOTALS			140.0		
56	PAGE TOTAL					140.0
57						

				X	EQUIPMENT	XX	X
					MA-1		
				GFAE	GFAE	CFE	INSTL
4	COCKPIT DISPLAY						
5	CONTROL-INDICATOR						
6	FILTER-LIGHT	464025			1.3		
7	ANNUNCIATOR	464034			0.1		
8	IND-SEARC + ATTK	464080			18.0		
9	FLT CONT-A/C+RDR	464083			4.3		
10	VISOR IND	464125			0.4		
11	CONT-FLT MODES	464163			3.5		
12	SIGHT-NON CMPTNG	464169			5.1		
13	TACT SIT DISPLAY	464180			82.0		
14	CONTROL RADAR	464305			1.9		
15	CONTROL, CHANNEL	464355			2.5		
16	CONT-CNVRTR RCVR	464019			2.5		
17	CONT-TACAN	464405			2.8		
18	SW-BEARING SEL.	464463			0.5		
19	CONT-FREQ COMM	464505			5.8		
20	CNVRTR-SIG DATA	464520			20.3		
21	CONT-RADAR FIS	464555			1.3		
22	CONTROL	464605			3.0		
23	CNVRTR-SIG DATA	464620			17.8		
24	CONT-CODER	464655			0.9		
25	CONT-ILAS	464755			1.3		
26	RADAR CONT AZM	464855			1.6		
27	CONTROL-POWER	464905			3.3		
28	CONT-AUTO NAV	464955			0.8		
29							
30	IND-FREQ CHNNL ID-572						
31							
32							
33							
34	RACK-RDR IND	464002			1.1		
35	-LH FWD	464073			77.0		
36	-RH FWD	464074			45.0		
37	-HORIZ IND	464102			3.9		
38	-ANT-RADAR	464173			24.5		
39	-UPR RH AFT	464174			50.7		
40	-RH FWD	464273			84.2		
41	-AFT APX-27	464274			5.4		
42	-STBL PLTFRM	464374			18.1		
43	-XCVR-APX	464402			1.3		
44	-STBL FLEM	464474			5.5		
45	-CODR-APX 19	464502			1.0		
46	-CMPNSTR AIR DATA	464573			1.0		
47	-SIG DATA	464602			10.3		
48	-ALT RATE	464611			1.5		
49	-CNVRTR AIR DATA	464673			2.4		
50	-DEHYD	464674			0.9		
51	-CMPTR AIR DATA	464773			4.5		
52	464774 + 464811				0.9		
53	-AFCS	464873			18.8		
54	-SYN-APX-27	464973			1.0		
55	COLUMN TOTAL				540.0		
56	PAGE TOTAL						540.0
57							

				X	EQUIPMENT	XX	X
1					MA-1		
2					GFAE	CFE	INSTL
3							
4							
5							
6							
7							
8							
9	CABLING						351.5
10							
11							
12							
13							
14	COMPUTER	60-6309			10.9		
15	GYRO TRANSMITTER	60-6311			3.7		
16	ACCELEROMETER	60-6300			1.4		
17	SWITCH-GYRO	60-5938			1.4		
18	INDICATOR	81-3382			1.0		
19	TRANSDUCER	60-1603			2.2		
20							
21							
22							
23	TUBING					5.3	
24	ANTENNAS					26.8	18.7
25	SWITCHES, RELAYS, CB, ETC					8.9	
26							
27	EQUIPMENT BRACKETRY						2.5
28							
29	MOUNTING FOR SIGHT						4.7
30							
31							
32	PROBE-FREE AIR TEMP				0.4		
33							
34	PITCH + YAW TRANSDUCER						1.0
35							
36	ELECTRONIC						7.8
37							
38	MISCELLANEOUS SUPPORTS						22.6
39							
40	SUPPORT-RADAR SCOPE						3.1
41							
42	SUPPORT-SITUATION DISPLAY						3.0
43							
44	RADAR						5.1
45							
46	SUPPORTS-HARNESS						5.0
47							
48							
49							
50							
51							
52							
53							
54							
55	COLUMN TOTALS				21.0	41.0	425.0
56	PAGE TOTAL						487.0
57	TOTAL-ELECTRONICS GROUP - PG 31-31F						2734.0

			MISSILE	MB-1 SYSTEM	COMMON INSTL
1					
2					
3					
4	ROCKET INSTALLATION				
5	TUBES				
6	DISPLACING GEAR				
7					
8					
9					
10					
11	MISSILE INSTALLATION				
12**	LAUNCHER		86.3		
13	DISPLACING GEAR-FWD		103.8		
14	DISPLACING GEAR- AFT		74.0		
15	TRUNNIONS-DISPL. GEAR		17.6		
16	UPLOCKS		14.1		
17	SNUBBERS		6.8		
18	SUPPORTS		57.8		
19	CAM HOLDBACKS		1.6		
20	MB-1 INSTALLATION				
21	EJECTOR + RACK			52.9	
22	NOSE DEFLECTOR			8.5	
23	SUPPORT-FWD CONSOLE RH				
24	LANYARDS			1.3	
25					
26	CHOCKS			1.9	
27	SUPPORTS-CHOCK STRUCT			0.8	
28					
29					
30	DISPLACING GEAR ACTUATION				
31	ACTUATOR-PNEUMATIC		70.6		
32					
33	VALVES		3.3		
34	PLUMBING		21.8		
35	FLUID				
36	SUPPORTS		5.4		
37					
38					
39	BLAST + EXHAUST PROTECTION				
40	EXHAUST PANS				
41	BLAST SHIELDS + LINERS				
42	GAS EXHAUST SYSTEM		22.0		
43	GAS SEALS		1.8		
44					
45	ELECTRICAL CONTROLS				
46*	CIRCUITRY		10.7	6.6	42.0
47	TIMER CHARGE CONTROL				
48	INDICATORS		0.5		
49	INTERVALOMETER		6.4		
50	RELAYS		1.3	1.1	0.3
51	SUPPORTS				2.3
52	BONDING CONNECTION				0.9
53	BORESIGHT PROVISIONS				1.6
54	ATTACH BOLTS, NUTS, ETC.				
55	COLUMN TOTALS		505.8	73.1	47.1
56	PAGE TOTAL				626.0
57	TOTAL-ARMAMENT GROUP - PG 33				626.0

* FROM MAIN DISTRIBUTION POINT TO ACTUATING UNIT.

** IF NOT SPECIFIED AS USEFUL LOAD OR SPECIAL EQUIPMENT.

AN 9102-D-TAB
 NAME CONVAIR
 DATE 15 November 1959

FURNISHINGS AND EQUIPMENT GROUP
 ACCOMMODATIONS FOR PERSONNEL

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1	X CREW SEATS X		OXYGEN INSTL	MISC ACCOM
	PILOT	ASST PILOT		
4	SEATS AND CHAIRS			
5	CUSHION			
6	SEAT			
7	SAFETY BELT			
8	HARNESS + INERTIA REEL			
9	ADJUSTING MECHANISM			
10	CATAPULT OR EJECT. MECH			
11	TRACKS AND SUPPORTS			
12	HEADREST			
13	OXYGEN EQUIP-EJECTABLE			
14	HOSE + FITTINGS			
15	CARRIAGE ASSY			
16	FLOOR BEEF-UP			
17	MISC ACCOMODATIONS			
18	BUNKS AND SUPPORTS			
19				
20	LITTER SUPPORTS			
21	KNEELING PADS			
22	PARACHUTE STOWAGE PROV			
23	TOILET AND RELIEF TUBES			
24	WASH BASINS + SHOWERS			
25	WATER TANKS + PIPING			
26	DRINKING WATER PROV			
27	LOCKERS-FOOD			
28	LOCKERS-PERSONAL EFFECTS			
29				
30				
31				
32				
33	GALLEY STOVES, HOTPLATES			
34	REFRIGERATOR			
35				
36				
37	VENTILATED SUIT			1.5
38	ANTI-G SUIT PROVISIONS			6.7
39				
40	OXYGEN INSTALLATION			
41*	BOTTLES	TYPE SIZE QTY		
42				
43				
44				
45				
46	CONVERTER + LIQUID OXYG.		24.3	
47*	REGULATORS			
48	SUPTS-BOTTLES, CONVERTER		2.5	
49	PLUMBING, ETC		5.4	
50	FILLER VALVE INSTALL.		0.9	
51	QUANTITY GAGE + AMPLIF.		2.0	
52	MASK DEFOGGING		2.0	
53				
54				
55	COLUMN TOTALS		142.7	8.2
56	TOTAL-PERSONNEL ACCOMODATIONS		37.1	188.0
57				

* OXYGEN BOTTLE INCLUDING CHARGE, IF NOT SPECIFIED AS USEFUL LOAD OR SPECIAL EQUIPMENT

				MISC EQUIP.	FURN
1					
2					
3					
4	MISCELLANEOUS EQUIPMENT				
5*	PORT. PLATFORMS, LADDERS				
6					
7	DATA CASES OR HOLDERS			1.5	
8	MANUALS-FLIGHT + MAINT				
9	BALANCE COMPUTER + SUPT				
10	CHECK LIST-PILOTS				
11					
12	TOOL LOCKERS				
13	GLARE SHIELD			3.9	
14	WINDSHIELD RAIN REMOVAL			36.8	
15	REL MECH-TARGET + TOW				
16	CLIPS-BLIND FLYING PANEL				
17	BILGE SYSTEM				
18	STALL WARNING DEVICES				
19	REAR VIEW MIRROR				
20	WIRING+PLUG+FUSE VGH REC				
21	AUXILIARY FLOORING				
22	INSTRUMENT BOARDS			14.3	
23	CONSOLES			11.5	
24	CONTROL STANDS				
25					
26*	CARGO HANDLING EQUIPMENT				
27	RAMPS				
28	HOISTS AND BOOMS				
29	MONORAILS				
30	MONORAIL MOTORS				
31	TIE DOWN FITTINGS				
32					
33	STOWAGE				
34	PINS + PADS			0.6	
35	PYROTECHNIC INSTALLATION				
36	SIGNAL PISTOL HOLDER				
37	AMMO HOLDER-CAP.-				
38	PARA FLARE				
39	-CONTAINER-CAP.-				
40	-RACKS -CAP.-				
41	-RELEASE MECHANISM				
42	SMOKE CANDLE-HANDLE				
43					
44	FLOATLIGHT RACK + REL				
45	CAP.-				
46	FURNISHINGS				
47	FLOOR COVERING, RUGS ETC				6.4
48	SOUNDPROOFING + INSUL				0.5
49	TRIM-COCKPIT				1.8
50	CURTAINS AND SCREENS				
51	CRASH PADDING				
52	PARTITIONS-NON STRUCT				
53	INSIGNIA + SERVICE MARKING				2.6
54	PLATE-RUDDER STRLNE PSTN				
55	COLUMN TOTALS			0.1	
56	TOTAL-MISCELLANEOUS EQUIPMENT AND FURNISHINGS			68.7	11.3
57					80.0

* IF NOT SPECIFIED AS SPECIAL EQUIPMENT

AN 9102-D-TAB
 NAME CONVAIR
 DATE 15 November 1959

FURNISHINGS AND EQUIPMENT
 EMERGENCY EQUIPMENT

PAGE 44
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	X FIRE PREVENTION + DETECTION SYSTEMS			XX OTHER
	ENGINE	BAGGAGE	FUEL	EMERG
	COMPT	COMPT	COMPT	EQUIP
4	FIRE PREVENT AND DETECTION			
5	BOTTLES	TYPE	SIZE	QTY
6				
7				
8				
9				
10				
11				
12	PORTABLE			
13				
14				
15				
16	CONTROLS			
17	PLUMBING			
18	BOTTLE SUPTS-FIXED EXT			
19				
20				
21	BOTTLE SUPTS-PORT. EXT			
22				
23				
24	FIRE DETECTION SYSTEM			21.0
25				
26	FIRE RESISTANT PAINT			
27	FIRE CURTAINS			
28				
29	OTHER EMERGENCY EQUIPMENT			
30	FIRST AID KITS + SUPTS			
31	FLASHLIGHTS-QTY			
32				
33	STOWAGE-EMERG FOOD, WATER			
34				
35*	LIFE RAFTS	TYPE	QTY	
36				
37	THERMAL RADIATION			
38				
39	LIFE RAFT SUPPORTS			
40				
41	DITCHING STATION EQUIP			
42				
43				
44	QUICK DISCONNECT-PILOTS			1.0
45				
46				
47				
48				
49				
50				
51				
52				
53				
54				
55	COLUMN TOTALS			1.0
56	TOTAL-EMERGENCY EQUIPMENT			21.0
57	TOTAL FURNISHINGS + EQUIPMENT GROUP - PG 34-36			290.0

* IF NOT SPECIFIED AS USEFUL LOAD OR SPECIAL EQUIPMENT.

			PRESS. SYSTEM	AIR COND SYSTEM	HEATING SYSTEM	COOLING SYSTEM
1						
2						
3						
4	REFRIGERATION UNIT			91.8		
5						
6	*HEATERS-BTU EA	QTY				
7						
8						
9						
10						
11	HEATING FLUID-	GAL				
12						
13	COMPRESSORS OR SUPCHGRS					
15	MOTORS					
14						
16	TURBINES					
17	FANS					
18						
19	SW-COCKPIT LOW PRESS WARN				0.9	
20	TANKS					
21	WATER SEPARATOR					
22	REGULATOR					
23						
24						
25	SCOOPS					
26	DUCTING					
27	INSULATION-DUCT				16.7	
28	DUCTING					
29	HEAT EXCHANGER				26.6	
30	BLEED AIR				40.4	
31	MISSILE BAY HEATING				4.8	
32	CABIN AIR		1.1	23.9		
33	FORWARD ELECTRONICS			18.5		
34	AFT ELECTRONICS			4.4		
35	FIN ELECTRONICS			6.1		
36	GROUND COOLING CONNECTION			8.7		
37						
38	PRESSURE TEST FITTING				0.4	
39	CONTROLS					
40	-MANUAL					
41						
42	-ELECTRICAL				29.8	
43						
44	-HYDRAULIC					
45						
46	-PNEUMATIC				38.6	
47						
48	SUPPORTS + BRACKETS-WING					
49	-TAIL					
50	-BODY					
51	-NACELLE				17.7	
52						
53						
54	PRESSURIZATION SEALING				2.6	
55	COLUMN TOTALS					
56	TOTAL-AIR CONDITIONING		1.1	331.9		
57						333.0

* IF NOT SPECIFIED AS SPECIAL EQUIPMENT.

	WING	TAIL	AIR INDUCT.	RADOME	WINDSHLD	PITOT
1						
2						
3						
4	*HEATERS	BTU	EA	QTY		
5						
6						
7						
8						
9						
10						
11	*HEAT EXCHANGERS					
12						
13						
14						
15	DUCTING IN BODY		14.7			
16	INSULATION-DUCT		1.7			
17						
18						
19	*BOOTS					
20						
21	*ATTACHING STRIPS					
22						
23	OIL SEPARATORS					
24						
25	AIR PUMPS					
26						
27	AIR LINES AND HOSES					
28						
29	TANKS			3.7		
30						
31	*FLUID-					
32		GAL				
33						
34						
35	PLUMBING			5.1		
36						
37						
38	DISTRIBUTOR					
39	-VALVE			2.0		
40	-CONTROLS					
41						
42	CONTROLS					
43	-MANUAL					
44	-ELECTRICAL		5.5	0.1	23.0	1.0
45	-HYDRAULIC					
46	-PNEUMATIC		4.8			
47						
48	**CIRCUITRY		2.2	0.2	5.0	3.7
49	SUPPORTS AND BRACKETS-WING					
50	-TAIL					
51	-BODY		0.7		0.6	
52	-NACELLE					
53						
54						
55	COLUMN TOTALS		29.6	11.1	28.6	4.7
56	TOTAL-ANTI-ICING					74.0
57	TOTAL-AIR CONDITIONING AND ANTI-ICING GROUP - PG 37-38					407.0

* IF NOT SPECIFIED AS SPECIAL EQUIPMENT
 ** FROM MAIN DISTRIBUTION POINT TO ACTUATING UNIT.

	HANDLING	ARREST.	CATAPULT	ATO
1				
2				
3				
4	HANDLING GEAR			
5	ANCHOR			
6	ANCHOR LINE			
7	PENDANT + CLAMP FITTING			
8	LIZARD			
9	SHEAVES			
10	WINCH-COMLETE			
11	WINCH CRANK			
12	ANCHOR RIG OR DAVIT			
13	WINCH ENGINE OR MOTOR			
14				
15*	HOISTING SLING			
16	WING HANDLING LINES			
17	WATER RUDDER			
18	FITTINGS			
19	-RECOVERY HOOK			
20	-BEACH GEAR ATTACHMENT			
21	-TIEDOWN	0.6		
22	-JACKING	5.5		
23	-TOWING			
24	-MOORING + SNUBBING			
25	-ANCHORAGE			
26	-LEVELING	1.9		
27	-HOISTING	3.0		
28				
29	ARRESTING OR DECELER GEAR			
30	TRAILING HOOK			
31	HOOK POINT-TYPE			
32	EXTENSION GEAR			
33	RETRIEVING GEAR			
34	BUMPER			
35	SHOCK ABSORBER			
36	ATTACHMENT FITTINGS		12.2	
37	BARRIER CRASH FITTINGS			
38				
39	DECELER-CHUTE		22.7	
40	-CONTAINER + FITTINGS		6.5	
41	-CONTROLS + MECHANISM		12.4	
42	-EMERGENCY RELEASE		4.2	
43	CATAPULTING GEAR			
44	CATAPULT FITTINGS			
45	CATAPULT HOOKS			
46	HOLD BACK FITTINGS			
47				
48	ASSISTED TAKE OFF			
49	HOOKS			
50	CONTROLS-FIRING			
51	-BOTTLE RELEASE			
52				
53	BOTTLE STOWAGE PROV			
54	QTY BOTTLES-			
55	COLUMN TOTALS	11.0	58.0	
56	PAGE TOTAL			
57	TOTAL-AUXILIARY GEAR GROUP			69.0 69.0

* IF NOT SPECIFIED AS SPECIAL EQUIPMENT.

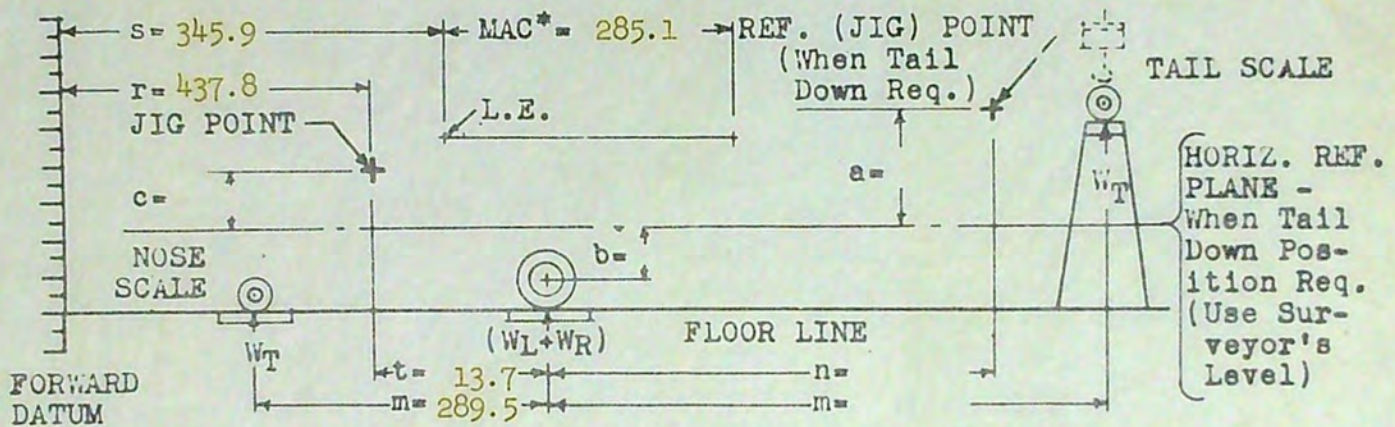
Load Condition Weight Empty
 Prepared by E. J. Porter
 Date 15 November 1959

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AIRCRAFT ACTUAL WEIGHT AND HORIZONTAL BALANCE

Contract No. AF33(600)34814, Gov't. No. 58-759, Fact. No. 115, Art. No. 8-24-70

SCALE POSITION	SCALE NO.	SCALE READING (Lbs.)	TARE	SCALE ERROR	SYMBOL	NET WEIGHT
Left Main Wheel		15630	-19		W _L	15611
Right Main Wheel		15755	-18		W _R	15737
Nose Wheel TRINK		2180			W _T	2180
TOTAL WEIGHT		33565	-37		W	33528



CENTER OF GRAVITY TO FORWARD DATUM (HORIZ. DIST. - AS WEIGHED)

$$r+t + \frac{W_T \times m}{W} = \dots \text{ In.}$$

Nose Wheel Type:
$$r+t - \frac{W_T \times m}{W} = 437.8 + 13.7 - \frac{2180 \times 289.5}{33528} = 432.7 \text{ In.}$$

CORRECTED WEIGHT & HORIZONTAL BALANCE

ITEMS ADDED & SUBTRACTED	WEIGHT (Lbs.)	H-DIST (In.) C.G. TO FWD. DATUM	MOMENT (In-Lbs.)	GUARANTEED
Aircraft as Weighed	33528	432.7	14507566	
Plus - See Page 49	87		10500	
Minus - See Page 50	-10167		-4623555	
TOTAL EMPTY GROSS WEIGHT	23448	422.0	9894511	
BALANCE (Corrected)	$= \frac{(H-Dist.)}{M.A.C.} - s = \frac{422.0}{285.1} - 345.9 = 26.7\% \text{ M.A.C.}$			to $\frac{\%}{\%} \text{ M.A.C.}$

*M.A.C. calc. in accord. with Handb'k. Sec. II, Part II, (Army) or SP-7 (Navy)

Witnessed by [Signature]

ANALYSIS
PREPARED BY
CHECKED BY
REVISED BY

CONVAIR
A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO

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WEIGHT EMPTY ITEMS NOT IN AIRPLANE WHEN WEIGHED

		Weight	Arm	Moment
Horizontal situation indicator	464180	82	121	9900
Non-computing sight control	464169	5	128	600
TOTAL		87	121	10500

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SAN DIEGO

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ITEMS WEIGHED THAT ARE NOT WEIGHT EMPTY

	Weight	Arm	Moment
Usable fuel, 1514 gal.	9841	455	4477655
Unusable fuel	243	461	112100
Oil, trapped and engine	60	505	30300
Survival kit container	23	152	3500
TOTAL	10167	455	4623555

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SAN DIEGO

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DERIVATION OF BASIC WEIGHT

	Weight	Arm	Moment
Airplane as weighed	33528	432.7	14506782
Plus basic items not in airplane when weighed	(19)	304	(5776)
Glycol	19	304	5776
Less items weighed that are not basic weight	(- 9875)		(- 4494825)
Usable fuel, 1514 gal.	9841	455	4477655
Engine oil	34	505	17170
TOTAL BASIC WEIGHT	23672	423.2	10017733

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 SAN DIEGO

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WEIGHT EMPTY - WEIGHT AND BALANCE SUMMARY

	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
WING GROUP	3302	508	1676264	83	275062
TAIL GROUP	693	647	448705	171	118699
BODY GROUP	4401	350	1542028	89	393627
ALIGHTING GEAR GROUP	(1232)	395	(487064)	47	(57933)
Main Gear	1020.8	445	454031	48	48761
Nose Gear	211.2	156	33033	43	9172
SURFACE CONTROL GROUP	445	484	215415	95	42440
NACELLE GROUP	39	562	21902	103	4032
PROPULSION GROUP	(8071)	521	(4204893)	100	(800211)
Engine	5816	562	3268592	100	581600
Air Induction System	975	315	307206	101	98624
Exhaust System	320.6	645	206642	103	33039
Cooling System	44.4	520	23091	112	4960
Lubricating System	51	475	24211	103	5265
Fuel System	777	434	337261	90	69824
Engine Controls	28	302	8460	86	2414
Starting System	59	499	29430	76	4485
INSTRUMENTS & NAVIG. EQUIP. GROUP	190	226	42924	85	16173
HYDRAULIC AND PNEUMATIC GROUP	431	415	178824	86	36977
ELECTRICAL GROUP	606	410	248349	83	50018
ELECTRONICS GROUP	2734	176	479849	82	223144
ARMAMENT GROUP	626	308	192876	81	50891
FURNISHINGS AND EQUIPMENT GROUP	290	190	55187	93	26924
AIR CONDITIONING & ANTI-ICING GROUP	407	276	112329	100	40789
AUXILIARY GEAR GROUP	69	612	42210	115	7952
UNACCOUNTABLE WEIGHT	- 88	617	- 54308	--	--
TOTAL WEIGHT EMPTY	23448	422.0	9894511	91.5	2144872

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WEIGHT EMPTY - WEIGHT AND BALANCE DETAILS

	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>WING GROUP</u>	(3302.0)	508	(1676264)	83	(275062)
<u>Basic Structure</u>	(2878.0)	497	(1431678)	84	(241154)
Spars	(714.9)	492	(351769)	84	(60059)
No. 1 - Leading Edge	99.8	435	43432	84	8384
No. 2 - Sta. 364	37.4	364	13614	84	3142
No. 3 - Sta. 431	111.4	431	48013	84	9364
No. 4 - Sta. 472	130.2	472	61459	84	10937
No. 5 - Sta. 520	120.0	520	62400	84	10079
No. 6 - Sta. 557	149.0	557	82993	84	12516
No. 7 - Sta. 594	67.1	594	39858	84	5637
Upper	(543.5)	500	(271529)	88	(47805)
Joints, Splices, & Fasteners	0.9	594	535	84	76
Interspar Cover - Sheet	31.0	453	14048	89	2744
Interspar Cover - Machined	511.6	502	256946	88	44985
Lower	(696.6)	504	(351252)	80	(55821)
Joints, Splices & Fasteners	105.2	508	53410	80	8461
Interspar Cover - Sheet	9.5	475	4510	80	756
Interspar Cover - Machined	581.9	504	293332	80	46604
Interspar	(545.2)	492	(268488)	84	(45949)
Ribs - Forward Tank	48.9	395	19328	84	4107
Ribs - Intermediate Box	26.1	453	11823	84	2197
Ribs - Aft Tank	118.1	515	60880	84	9922
Ribs - Trailing Edge Tank & Box	91.1	575	52355	84	7640
Bulkheads	172.9	466	80493	85	14621
Chordwise Stiffeners	21.4	453	9688	87	1862
Joints, Splices & Fasteners	66.7	509	33921	84	5600
Leading Edge	(152.1)	441	(67017)	83	(12579)
Cover	81.7	444	36270	82	6722
Ribs	30.4	441	13416	83	2511
Joints, Splices, & Fasteners	40.0	433	17331	84	3346
Slotted Leading Edge	8.2	489	4008	86	704
Tips	114.5	587	67252	83	9493
Drag Angles	30.6	459	14043	86	2623
Attachments - Wing to Body	72.4	502	36320	85	6121

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WEIGHT EMPTY - WEIGHT AND BALANCE DETAILS
 (Cont'd.)

	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>WING GROUP (Cont'd.)</u>					
<u>Secondary Structure - Doors, Panels, & Miscellaneous</u>	(97.0)	487	(47196)	67	(6469)
Doors and Frames	(55.2)	455	(25121)	55	(3060)
Main Landing Gear	53.4	452	24137	54	2906
Access	1.8	547	984	86	154
Fairings and Fillets	28.0	531	14865	80	2233
Exterior Finish	13.8	522	7210	85	1176
<u>Control Surfaces - Elevons</u>	(327.0)	604	(197390)	84	(27439)
Spars	16.2	599	9704	84	1360
Ribs	28.8	606	17454	84	2419
Cover and Stiffeners	77.4	602	46628	84	6497
Joints, Splices and Fasteners	4.5	608	2736	84	376
Strips, - Trailing Edge	59.1	620	36634	84	4964
Fittings - Split Elevon	2.5	614	1536	84	209
Bonding Jumpers	0.8	596	477	84	67
Control Horns	88.1	600	52827	84	7410
Hinges and Pins	19.0	598	11357	84	1593
Supports (Hinge)	30.6	589	18037	83	2544
<u>TAIL GROUP</u>	(693.0)	647	(448705)	171	(118699)
<u>Basic Structure</u>	(615.0)	642	(394598)	171	(105208)
Spars	(184.3)	643	(118569)	147	(27086)
No. 1 - Leading Edge	9.2	593	5454	176	1615
No. 2	7.0	557	3899	134	935
No. 3	51.3	622	31913	138	7094
No. 4	65.5	649	42490	149	9761
No. 5	51.3	679	34813	150	7681

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	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>TAIL GROUP</u> (Cont'd.)					
<u>Basic Structure</u> (Cont'd.)					
Interspar Cover, Fin	254.6	635	161680	172	43902
Joints, Splices, & Fasteners-Cover	26.9	629	16912	159	4266
Interspar Ribs	30.3	632	19146	166	5040
Joints, Splices & Fasteners-Rib	2.6	638	1660	167	434
Leading Edge	(36.5)	592	(21603)	179	(6536)
Cover	23.2	588	13639	181	4190
Ribs	3.6	589	2120	150	541
Joints, Splices, & Fasteners	9.7	602	5844	186	1805
Drag Angles	8.2	598	4902	132	1080
Tips	69.9	703	49106	238	16643
Attachments - Fin to Body	1.7	600	1020	130	221
<u>Secondary Structure</u>	(7.0)	659	(4613)	165	(1155)
Doors and Frames - Access	0.4	691	276	188	75
Exterior Finish	3.0	649	1947	184	552
Fairing and Fillets	3.6	664	2390	147	528
<u>Control Surface - Rudder</u>	(71.0)	697	(49494)	174	(12336)
Spar	2.9	696	2018	190	551
Ribs	13.2	705	9312	188	2487
Cover and Stiffeners	16.3	705	11492	182	2967
Joints, Splices and Fasteners	3.4	695	2364	179	608
Strips - Trailing Edge	1.2	721	865	190	228
Bonding Jumpers	0.4	698	279	190	76
Control Horns	24.7	689	17024	157	3879
Hinges and Pins	5.3	695	3686	187	992
Supports (Hinge)	3.6	682	2454	152	548

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	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>BODY GROUP</u>	(4401.0)	350	(1542028)	89	(393627)
<u>Basic Structure</u>	(3080.0)	387	(1192483)	92	(282874)
Bulkheads and Frames	(927.8)	434	(402298)	92	(85214)
Radome Attachment Sta. 41	3.5	41	144	74	259
Forward Pressure Sta. 102	19.5	102	1989	79	1541
Aft Pressure - Canted	51.6	168	8669	86	4438
Fwd. Missile Bay and Fuel Sta. 217	50.1	217	10882	93	4680
Aft Fuel Tank Sta. 253	38.2	253	9653	108	4118
Center Missile Bay Sta. 316	67.2	316	21235	96	6475
Wing Spar #2 Attachment	55.4	364	20165	89	4949
Fumetight Sta. 412	27.7	412	11412	85	2355
Wing Spar #3 Attachment	110.4	431	47582	81	8975
Wing Spar #4 Attachment	165.7	472	78211	96	15872
Wing Spar #5 Attachment	97.0	520	50440	89	8633
Wing Spar #6 Attachment	129.5	557	72132	92	11914
Wing Spar #7 Attachment	46.4	593	27515	96	4434
Fin Spar #3 Attachment	21.1	611	12892	100	2110
Fin Spar #4 Attachment	16.5	638	10527	100	1650
Fin Spar #5 Attachment	23.2	672	15598	100	2320
Tailcone Attachment	4.8	678	3252	102	491
Minor Frames	542.6	386	209444	94	51004
Joints, Splices, and Fasteners	51.5	316	16256	93	4783
<u>Covering</u>	(565.2)	389	(219682)	99	(55755)
Upper - Between Longerons	34.8	245	8516	118	4110
Side - Between Longerons	508.2	408	207346	99	50312
Lower - Between Longerons	22.2	172	3820	60	1333
<u>Skin Stiffeners - Side Between Longerons</u>	20.0	503	10055	69	1379
Missile Bay Stabilizing Angles	13.6	290	3947	79	1079
Fittings and Beams - Engine Mount	39.8	510	20287	103	4116
<u>Longerons</u>	(408.8)	384	(156842)	86	(35327)
Upper	142.1	349	49626	120	17113
Lower	168.9	352	59425	64	10831
Side	38.2	589	22482	86	3277
Truss - Lower	59.6	425	25309	69	4106

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	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>BODY GROUP</u> (Cont'd.)					
<u>Basic Structure</u> (Cont'd.)					
Longitudinal Partitions	10.6	79	839	78	826
Flooring and Supports	43.9	139	6111	77	3402
Support Beam - Floor and NLG	20.6	133	2739	76	1566
Access Doors	(281.5)	320	(90194)	90	(25316)
Engine Compartment	50.3	516	25973	68	3442
Structural	84.0	499	41917	103	8630
Fwd. Radar Compartment	70.1	72	5061	75	5232
Refrigeration Compartment Door	20.9	294	6141	131	2731
Side Radar Compartment	56.2	198	11102	94	5281
Armament Structure	32.1	319	10241	90	2879
Horizontal Diaphragm-Missile Bay	122.0	357	43548	84	10228
<u>Secondary Structure</u>	(1321.0)	265	(349545)	84	(110753)
Radome	(156.2)	13	(2060)	72	(11256)
Structure	153.1	13	1936	72	11027
Attachment	3.1	40	124	74	229
Canopy and Windshield	(362.3)	149	(53875)	113	(41100)
Canopy - Pressurized	152.8	168	25711	121	18460
Canopy - Operating Mechanism	(87.2)	159	(13838)	98	(8575)
Canopy Latches	33.2	165	5470	115	3803
Air Spring - Remover	2.1	188	395	114	239
Seal System	9.6	177	1696	109	1048
Unlock Warning System	1.4	149	209	90	126
Jettison Equipment	18.1	187	3377	95	1715
Emergency Latch Release	2.7	110	297	98	265
Control Unit Elect	13.5	108	1458	63	851
Switch Fuse Release	6.6	142	936	80	528
Windshield	122.3	117	14326	115	14065

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BODY GROUP (Cont'd.)	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>Secondary Structure (Cont'd.)</u>					
Speed Brakes	(68.5)	707	(48398)	144	(9887)
Structure	49.9	714	35618	144	7186
Supports	18.6	687	12780	145	2701
Doors and Frames	(688.0)	330	(226942)	64	(43830)
Nose Landing Gear Door	(35.4)	132	(4681)	57	(2035)
Structure	22.9	133	3043	52	1189
Mechanisms and Controls	4.2	130	546	55	233
Power Transmission	2.7	133	360	74	200
Actuator	5.0	130	649	74	372
Emergency System	0.6	138	83	68	41
Main Landing Gear Doors	(123.7)	451	(55742)	56	(6884)
Structure	67.0	452	30280	45	3029
Mechanisms and Controls	33.2	452	15005	67	2226
Power Transmission	9.8	435	4265	70	688
Actuators	11.2	455	5092	69	774
Emergency System	2.5	440	1100	67	167
Armament Bay Doors	(475.2)	312	(148452)	65	(30996)
Structure	287.4	314	90108	59	17063
Mechanisms and Controls	65.7	308	20238	69	4554
Power Transmission	14.1	306	4315	78	1094
Actuators, Supports, & Seals	104.3	309	32196	77	8041
Emergency System	3.7	431	1595	66	244
Center Radar Doors - Lower	15.3	197	3008	55	849
Access Doors	33.5	388	12992	82	2763
Ram Air Turbine Door	4.9	422	2067	62	303
Ram Air Turbine Enclosure	7.7	422	3249	66	505
Fairing and Fillets	18.5	432	8000	133	2457
Exterior Finish	19.8	355	7021	87	1718

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	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>ALIGHTING GEAR GROUP (GEAR DOWN)</u>	(1232.0)	395	(487064)	47	(57933)
<u>Main Landing Gear</u>	(920.8)	452	(416452)	44	(40751)
Wheels	96.0	452	43392	25	2400
Tires	102.0	452	46104	25	2550
Tubes	15.5	452	7006	25	388
Air in Tubes	2.2	452	994	25	55
Brakes	190.0	452	85880	25	4750
Drag Braces	38.4	452	17357	63	2419
Side Braces	63.0	456	28728	72	4509
Pivot Shaft	13.2	452	5966	84	1109
Shock Strut	374.2	452	169138	54	20241
Fittings - Main Attach - Wing	26.3	452	11887	89	2330
<u>Nose Landing Gear</u>	(171.2)	159	(27144)	38	(6558)
Wheels	19.6	162	3175	21	412
Tires	16.0	162	2592	21	336
Tubes	4.3	162	697	21	90
Air in Tubes	0.6	162	97	21	13
Drag Brace	17.6	145	2552	58	1021
Shock Strut	70.6	158	11151	43	3018
Steer Damper - Including Valve	32.8	164	5379	31	1029
Fittings - Main Attach - Body	9.7	155	1501	66	639
<u>Controls - Main Landing Gear</u>	(100.0)	376	(37579)	80	(8010)
<u>Retracting System</u>	(67.6)	427	(28843)	80	(5380)
Mechanical Controls	3.6	452	1627	88	317
Electrical	(7.4)	315	(2330)	83	(611)
Controls	1.7	176	299	97	165
Circuitry	3.2	370	1184	81	259
Safety System	2.5	339	847	75	187
Hydraulic	(46.1)	446	(20539)	80	(3673)
Controls	5.1	437		69	354
Plumbing	5.0	444		81	404
Actuators	30.2	447			2446
Fluid	5.8	447			469

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WEIGHT EMPTY - WEIGHT AND BALANCE DETAILS
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	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>ALIGNING GEAR GROUP</u> (Cont'd.)					
<u>Controls - Main Landing Gear</u> (Cont'd.)					
<u>Retracting System</u> (Cont'd.)					
Position Indicating Mech.	7.7	432	3327	71	549
Supports, Guides, Etc.	(2.8)	364	(1020)	82	(230)
Wing	2.1	442	928	78	164
Body	0.7	131	92	94	66
<u>Brake Operating System</u>	(27.3)	268	(7319)	81	(2224)
Mechanical Controls	3.9	119	463	92	357
Hydraulic	(5.6)	129	(725)	89	(501)
Controls	4.7	115	541	90	423
Fluid	0.9	204	184	87	78
Pneumatic	(16.7)	346	(5775)	78	(1296)
Controls	2.9	455	1320	67	194
Plumbing and Air	13.8	323	4455	80	1102
Supports, Guides, Etc.-Body	1.1	324	356	64	70
<u>Emergency Operation</u>	(5.1)	278	(1417)	80	(406)
Controls - Electrical	0.2	129	26	90	18
Pneumatic	(4.9)	284	(1391)	79	(388)
Controls	1.5	126	189	85	127
Plumbing	3.4	354	1202	77	261
<u>Controls - Nose Landing Gear</u>	(40.0)	147	(5889)	65	(2614)
<u>Steering System</u>	(16.2)	155	(2505)	60	(979)
Electrical	(5.6)	139	(781)	73	(406)
Controls	5.1	139	709	68	349
Circuitry	0.5	143	72	113	57

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	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>ALIGHTING GEAR GROUP (Cont'd.)</u>					
<u>Controls - Nose Landing Gear (Cont'd.)</u>					
<u>Steering System (Cont'd.)</u>					
Hydraulic	(10.5)	163	(1708)	54	(565)
Controls	1.3	161	209	75	98
Plumbing	2.5	154	385	75	188
Mech.-Steering Actuator	5.9	167	986	38	223
Fluid	0.8	160	128	70	56
Supports - Body	0.1	163	16	75	8
<u>Retracting System</u>					
Mechanical Controls	(20.5)	142	(2903)	68	(1387)
Electrical Controls	3.2	147	470	65	208
Hydraulic	2.4	131	314	62	149
Controls	(9.5)	139	(1320)	70	(662)
Plumbing	4.6	131	604	71	325
Actuator	1.0	150	150	80	80
Fluid	3.4	145	493	66	224
Position Indicating Mech.	0.5	145	73	66	33
Supports - Body	4.2	147	619	69	290
<u>Emergency Extension</u>					
Controls - Pneumatic	1.2	150	180	65	78
Plumbing - Pneumatic	(3.3)	146	(481)	75	(248)
Controls - Pneumatic	1.4	140	196	75	105
Plumbing - Pneumatic	1.9	150	285	75	143

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	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>SURFACE CONTROLS GROUP</u> (Cont'd.)					
<u>Elevon System Controls</u> (Cont'd.)					
Supports, Guides, Etc.	(52.4)	540	(28302)	85	(4457)
Wing	3.6	584	2101	83	297
Body	38.7	529	20459	86	3309
Elevon	10.1	569	5742	84	851
Fairleads	0.2	260	52	85	17
<u>Rudder System Controls</u>	(70.1)	552	(38689)	133	(9313)
Mechanical	(16.0)	420	(6715)	119	(1902)
Controls	12.8	363	4643	115	1476
Tension Regulator	3.0	647	1941	132	396
Centering Spring	0.2	656	131	150	30
Electrical Trim Controls	7.1	490	3477	115	815
Hydraulic	(28.8)	652	(18773)	145	(4176)
Plumbing	9.9	628	6221	141	1399
Actuator	18.2	665	12103	147	2675
Fluid	0.7	641	449	146	102
Artificial Feel - Q Spring System	5.1	662	3377	142	725
Supports, Guides, Etc.	(11.6)	505	(5858)	132	(1529)
Tail	2.9	629	1824	146	422
Body	8.7	464	4034	127	1107
Fairleads	1.5	326	489	111	166
<u>Speed Brake System Controls</u>	(26.3)	666	(17516)	135	(3561)
Electrical Circuitry	2.8	415	1163	101	282

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	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>SURFACE CONTROLS GROUP</u>	(445.0)	484	(215415)	95	(42440)
<u>Cockpit Controls</u>	(36.5)	147	(5364)	83	(3031)
Control Stick	(26.4)	145	(3831)	77	(2044)
Center Stick	9.9	141	1397	83	821
Supports	2.6	133	347	82	212
Counterbalance	13.9	150	2087	73	1011
Rudder and Brake Pedals	10.1	152	1533	98	987
<u>Automatic Stabilization</u>	(65.5)	395	(25871)	92	(6028)
Yaw and Pitch Damper	(63.7)	396	(25241)	93	(5897)
Amplifier	23.7	399	9464	97	2294
Gyros	7.0	439	3073	86	602
Circuitry	13.4	322	4316	99	1327
Pitch G Limiter	16.3	434	7077	83	1358
Supports and Mounts	3.3	397	1311	96	316
Pilot Assist	1.8	350	630	73	131
<u>Eleven System Controls</u>	(246.6)	519	(127975)	83	(20507)
Mechanical Controls	47.1	427	20099	76	3565
Electrical Trim Controls	14.5	431	6251	81	1173
Hydraulic	(93.3)	581	(54199)	86	(8045)
Controls	16.5	581	9587	84	1386
Plumbing	18.8	580	10912	83	1564
Actuators	45.0	582	26168	88	3961
Mechanism	6.3	580	3656	88	556
Fluid	6.7	579	3876	86	578
Artificial Feel & Spring System	37.3	487	18179	83	3106
Gust Locks	1.8	496	893	80	144

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	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>SURFACE CONTROLS GROUP</u> (Cont'd.)					
<u>Speed Brake System Controls</u> (Cont'd.)					
Hydraulics	(22.8)	697	(15884)	139	(3179)
Controls	3.9	659	2570	137	536
Plumbing	3.5	690	2415	141	494
Actuators	14.0	708	9908	140	1953
Fluid	1.4	708	991	140	196
Supports, Guides, Etc.-Body	0.7	670	469	143	100
<u>NACELLE GROUP</u>					
Engine Mounts	(31.5)	554	(17455)	107	(3369)
Forward Mount	12.1	478	5786	94	1137
Aft Mount	19.4	601	11669	115	2232
Engine Removal Brackets	7.5	593	4447	88	663
<u>PROPULSION GROUP</u>					
Engine and Afterburner (Wet)	5816.0	562	3268592	100	581600
Air Induction System	(975.0)	315	(307206)	101	(98624)
Engine Air Ducts	(609.7)	325	(198295)	103	(62942)
Skin - Interior	(234.4)	344	(80686)	103	(24045)
Inlet, Sta. 245-280	38.7	269	10417	102	3944
Sta. 280-316	44.1	294	12945	103	4539
Sta. 316-428	133.8	368	49172	103	13782
Sta. 428-472	17.8	458	8152	100	1780
Skin - Exterior	(49.4)	283	(14004)	104	(5117)
Inlet, Sta. 245-280	28.7	273	7835	103	2943
Sta. 280-316	20.7	298	6169	105	2174

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		Arm	Moment	Arm	Moment
<u>PROPULSION GROUP</u> (Cont'd.)					
<u>Air Induction System</u> (Cont'd.)					
<u>Engine Air Ducts</u> (Cont'd.)					
Ribs, Frames and Stiffeners	(216.6)	309	(66977)	106	(22965)
Inlet, Sta. 245-280	101.7	279	28408	112	11419
Sta. 280 - 316	50.6	298	15085	99	4997
Sta. 316 - 428	64.3	365	23484	102	6549
Fittings-Inlet, Sta. 245-280	61.9	265	16376	98	6076
Clips, Angles, & Splices	(11.6)	390	(4519)	104	(1212)
Sta. 316 - 428	9.0	375	3375	106	952
Sta. 428 - 472	2.6	440	1144	100	260
Standard Parts	(3.7)	360	(1331)	99	(367)
Inlet, Sta. 245-280	1.7	265	451	98	167
Sta. 428 - 472	2.0	440	880	100	200
Seals and Retainers	8.9	474	4217	97	863
Scroll	23.2	439	10185	99	2297
<u>Ducts - Boundary Layer</u>	(19.0)	279	(5303)	102	(1933)
Inlet, Sta. 245-280	11.8	270	3186	104	1227
Sta. 280 - 316	7.2	294	2117	98	706
<u>Variable Ramp Bleed</u>	20.8	280	5823	91	1883
<u>Ramp (Variable)</u>	(309.4)	291	(89886)	98	(30302)
Ramp and Structure	202.3	297	60041	98	19851
Mechanism	79.2	269	21328	98	7727
Operating System - Normal	12.8	301	3856	99	1265
Operating System - Emergency	15.1	309	4661	97	1459
<u>Engine Nose Fairing</u>	10.0	466	4655	98	981
<u>Compressor Relief Ducts</u>	6.1	532	3244	96	583

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	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>PROPULSION GROUP</u> (Cont'd.)					
<u>Exhaust System</u>	(320.6)	645	(206642)	103	(33039)
Engine Shroud and Insulation	310.5	645	200220	103	32093
Supports, Brackets, Etc.	10.1	636	6422	94	946
<u>Cooling System</u>	(44.4)	520	(23091)	112	(4960)
Engine Shroud Ducts	30.5	509	15527	109	3318
Insulation for Structure	4.9	545	2671	118	579
Controls	9.0	544	4893	118	1063
<u>Lubricating System</u>	(51.0)	475	(24211)	103	(5265)
Auxiliary	(45.2)	472	(21345)	105	(4755)
Oil Cooler and Supports	10.9	467	5091	110	1197
Ducts and Shutters	10.9	455	4955	111	1215
Shutter Controls	13.6	477	6488	101	1374
Distribution System	9.3	492	4576	99	922
Drains	0.5	467	235	94	47
Main	(5.8)	494	(2866)	88	(510)
Scupper - Oil Filler	1.1	509	560	122	134
Oil Breather	1.9	530	1007	76	145
Warning Systems	1.6	448	717	92	147
Drains	1.2	485	582	70	84
<u>Fuel System</u>	(777.0)	434	(337261)	90	(69824)
Auxiliary (External Fuel Tank Prov.)	(67.0)	438	(29326)	84	(5609)
Tank Release and Controls	39.7	435	17275	83	3293
Transfer System	8.7	431	3749	84	731
Pressurization System	18.6	446	8302	85	1585
Main	(710.0)	434	(307935)	90	(64215)
Integral Tank Seals & Sealants	101.4	411	41683	92	9367
Booster Pump Installation	44.8	514	23029	84	3763
C.G. Control Transfer System	201.4	415	83512	93	18677
C.G. Control Bleed Air System	62.0	421	26079	106	6541
Filling System - Ground	31.5	372	11729	87	2745
Warning Systems	18.1	451	8155	89	1602
Distribution System	78.2	463	36180	81	6351

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	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>PROPULSION GROUP</u> (Cont'd.)					
<u>Fuel System</u> (Cont'd.)					
Main (Cont'd.)					
Transfer System	53.4	480	25657	84	4486
Vent System	90.8	425	38596	91	8289
Pressurization System	13.7	446	6106	88	1210
Scavenge System	5.3	560	2968	84	447
Drains	9.4	451	4241	78	737
<u>Engine Controls</u>	(28.0)	302	(8460)	86	(2414)
Ignition	2.3	375	862	90	206
Throttle	21.3	264	5623	85	1815
Afterburner	4.4	449	1975	89	393
<u>Starting System</u>	(59.0)	499	(29430)	76	(4485)
Starter - Combustion (MA-11)	48.4	509	24633	75	3623
Circuitry	3.9	382	1490	90	351
Exhaust Ducts	1.1	510	561	75	83
Valves and Plumbing	5.1	488	2491	76	390
Oil	0.5	510	255	75	38

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	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>INSTRUMENT AND NAVIGATIONAL EQUIPMENT GROUP</u>	(190.0)	226	(42924)	85	(16173)
Air Speed - Standby	(7.7)	86	(663)	77	(591)
Indicator	1.0	128	128	106	106
Installation	6.7	80	535	72	485
Air Speed - Machmeter	(25.2)	95	(2392)	93	(2336)
Indicator	10.1	128	1293	106	1071
Amplifier	11.2	104	1169	88	986
Installation	3.9	- 18	- 70	72	279
Altimeter	1.5	128	192	104	156
Gyro Horizon	(8.0)	128	(1027)	107	(855)
Indicator	7.9	128	1011	107	845
Installation	0.1	161	16	96	10
Compass - Flight Sensing	(53.1)	218	(11571)	70	(3702)
Amplifier	43.7	190	8286	68	2962
Installation	9.4	349	3285	79	740
Horizontal Situation	(12.3)	134	(1651)	93	(1150)
Indicator	7.9	125	988	101	798
Amplifier	3.8	150	570	79	300
Installation	0.6	155	93	87	52
Altimeter - Vertical Speed	(18.3)	124	(2275)	96	(1757)
Indicator	10.0	128	1280	102	1020
Amplifier	7.7	120	924	89	685
Installation	0.6	119	71	86	52
Standby Compass	(0.9)	129	(116)	126	(113)
Indicator	0.7	128	90	126	88
Installation	0.2	128	26	126	25
Clock	0.5	128	64	111	56
Pressure Ratio System	(13.0)	249	(3238)	78	(1014)
Indicator	1.2	128	154	109	131
Amplifier-Transmitter	5.5	158	869	71	391
Installation	6.3	352	2215	78	492

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	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>INSTRUMENT AND NAVIGATIONAL EQUIPMENT</u>					
<u>GROUP (Cont'd.)</u>					
Free Air Temperature Installation	0.4	250	100	90	36
Turbine Outlet Temperature	(6.8)	396	(2694)	101	(687)
Indicator	0.8	128	102	109	87
Installation	6.0	432	2592	100	600
Fuel Quantity System	(19.7)	421	(8289)	89	(1761)
Indicator	1.5	128	192	103	154
Amplifier	4.1	473	1938	87	355
Installation	14.1	437	6159	89	1252
Tachometer	(2.4)	319	(765)	97	(233)
Indicator	0.8	128	102	106	85
Amplifier	0.5	500	250	81	41
Installation	1.1	375	413	97	107
Hydraulic Pressure	(5.8)	369	(2143)	86	(501)
Indicator	0.4	129	52	96	38
Transmitter	2.4	415	996	84	202
Installation	3.0	365	1095	87	261
Oil Pressure	(3.9)	362	(1413)	88	(343)
Indicator	0.4	129	52	96	38
Transmitter	1.4	512	717	85	119
Installation	2.1	307	644	89	186
Fuel Flowmeter	(8.7)	470	(4086)	83	(726)
Indicator	0.5	128	64	103	52
Amplifier	7.5	503	3773	82	615
Installation	0.7	356	249	84	59
Oxygen Quantity Installation	0.2	161	32	96	20
Power System	0.8	135	108	71	57
Standard Parts	0.8	131	105	99	79

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	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>HYDRAULIC AND PNEUMATIC GROUP</u>	(431.0)	415	(178824)	86	(36977)
<u>Hydraulic</u>	(255.4)	459	(117246)	76	(19286)
<u>Utility</u>	(227.6)	466	(106126)	76	(17358)
Pumps	56.4	517	29154	75	4238
Reservoirs	(23.2)	420	(9744)	75	(1741)
Secondary	12.1	420	5082	75	908
Primary	11.1	420	4662	75	833
Accumulators	9.3	414	3851	78	721
Air	0.2	414	83	78	16
Filters	3.4	499	1695	79	270
Reservoir Pressure System	5.2	430	2235	85	440
Valves	4.8	527	2531	76	364
Shrouding and Cooling	29.0	520	15067	85	2471
Low Pressure Warning	5.8	347	2013	85	491
Plumbing	41.6	432	17969	78	3258
Fluid in System	39.0	448	17474	68	2639
Supports	(9.7)	444	(4310)	73	(709)
Tail	0.1	500	50	80	8
Body	9.6	444	4260	73	701
<u>Emergency</u>	(27.8)	400	(11120)	69	(1928)
Ram Air Turbine	(20.4)	393	(8010)	68	(1396)
Turbine	13.0	418	5434	65	845
Actuation	4.3	383	1647	75	323
Mechanism	1.7	422	717	62	106
Controls	1.4	151	212	87	122
Valves	1.3	421	547	84	109
Plumbing	4.4	420	1846	70	308
Fluid in System	0.6	422	253	70	42
Supports - Body	1.1	422	464	66	73

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	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>HYDRAULIC AND PNEUMATIC GROUP (Cont'd.)</u>					
<u>Pneumatic</u>	(175.6)	351	(61578)	101	(17691)
<u>Utility</u>	(175.5)	351	(61556)	101	(17683)
Air Bottles	93.5	343	32071	104	9724
Air in Bottles (5100 cu. in.)	42.8	343	14680	109	4665
Pressure Regulators	3.2	328	1050	94	301
Valves	5.9	387	2282	85	517
Controls	0.6	180	108	110	66
Low Pressure Warning	0.4	285	114	115	46
Plumbing	22.5	396	8920	76	1709
Supports - Body	6.7	351	2353	99	663
<u>ELECTRICAL GROUP</u>					
<u>A.C. System</u>	(606.0)	410	(248349)	83	(50018)
<u>Power Supply</u>	(305.3)	488	(149197)	81	(24694)
Generator - Emerg. 3.5 KVA	17.5	464	8120	92	1610
Alternator	49.6	487	24155	75	3720
Remote Generator Drive	226.2	492	111188	81	18233
Emergency Generator Drive	12.0	478	5734	94	1131
<u>Distribution and Controls</u>	(78.3)	365	(28604)	87	(6817)
Control Boxes	5.3	401	2125	85	451
Voltage Regulator	21.0	465	9765	83	1743
Switches	0.2	295	59	95	19
Circuit Breakers and Fuses	0.2	452	90	97	20
Junction, Fuse, and Dist. Boxes	1.4	223	312	82	115
Receptacles and Connector Plugs	14.7	294	4318	75	1100
Relays	5.8	408	2366	82	477
Wiring	29.4	322	9472	97	2862
Conduit	0.3	324	97	100	30

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	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>ELECTRICAL GROUP</u> (Cont'd.)					
<u>A. C. System</u> (Cont'd.)					
Lights and Signal Devices	(18.3)	305	(5590)	103	(1879)
Interior Lights	8.6	146	1257	94	808
Exterior Lights	9.7	447	4333	110	1071
Equipment Supports	(64.1)	358	(22924)	85	(5458)
Emergency Generator Instl.	46.3	384	17789	87	4015
Supports in Body	17.8	288	5135	81	1443
<u>D. C. System</u>					
Power Supply	(69.0)	319	(22043)	70	(4859)
Generator 100 Amp.	37.5	487	18263	75	2813
Battery (24V-10 AH) & Rectifier	31.0	120	3720	65	2015
Battery-Rectifier Supports	0.5	120	60	61	31
Power Distribution	(23.1)	358	(8279)	93	(2137)
Regulator and Control	6.0	465	2790	83	498
Switches	0.1	134	13	96	10
Fuses	0.7	196	137	67	47
Receptacles	0.2	175	35	110	22
Relays	2.2	308	678	77	170
Wiring	13.9	333	4626	100	1390
Lights and Signal Devices	(37.0)	263	(9638)	92	(3382)
Interior Lights	8.9	141	1259	99	881
Exterior Lights	13.3	321	4274	99	1319
Landing Lights	7.7	413	3182	76	588
Stowage - Spare Lamp	7.1	130	923	84	594
Equipment Supports - Body	10.9	190	2074	73	792

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	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>ELECTRONICS GROUP</u>	(2734.0)	176	(479849)	82	(223144)
<u>GFAE</u>	(2268.0)	164	(371450)	82	(184844)
<u>Hughes' MA-1 System</u>	(2247.0)	164	(367406)	82	(183339)
<u>Radar Subsystem</u>	(455.0)	67	(30624)	75	(34020)
Dehydrator 463097	3.8	212	806	67	255
Synchronizer 464003	5.6	91	510	73	409
Waveguide Assy. 464016	1.0	46	46	65	65
Antenna 464017	72.5	30	2172	74	5358
Converter 464020	7.1	78	554	73	518
Indicating Pressure 464024	1.8	54	97	89	160
Amplifier 464041	10.3	72	742	78	803
Compressor 464045	8.2	178	1460	62	508
Switch Box 464063	3.1	78	242	90	279
Receiver-Transmitter 464065	170.0	51	8670	73	12410
Gate 464082	6.5	85	553	73	475
Coupler 464084	0.6	41	25	66	40
Oscillator Rate 464093	3.3	91	300	86	284
Amplifier 464095	5.5	85	468	65	358
Test Set 464096	3.3	85	281	90	297
Synchronizer 464103	6.8	91	619	69	469
Dehydrator Silica 463097	3.8	212	806	67	255
Oscillator Gate 463203	3.0	91	273	86	258
Amplifier 464106	10.3	85	876	78	803
Valve 464107	2.5	177	443	70	175
Amplifier 464141	10.0	91	910	82	820
Comparator 464150	7.2	78	562	69	497
Duct 464190	3.6	52	187	75	270
Amplifier 464195	6.5	97	631	69	449
Test Set 464196	2.6	72	187	86	224
Amplifier 464206	7.8	78	608	78	608
Converter 464223	8.4	97	815	78	655
Amplifier 464241	10.6	78	827	82	869
Computer 464346	6.6	78	515	86	568
Amplifier 464295	5.0	85	425	69	345
Generator 464389	5.8	91	528	65	377
Amplifier 464395	7.0	97	679	73	511
Amplifier 464495	4.4	78	343	65	286
Amplifier 464506	9.0	85	765	82	738
Converter 464523	7.9	91	719	78	616
Filter 464341	8.4	97	815	86	722
Filter 464425	12.6	85	1071	86	1084

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	Weight	HORIZONTAL		VERTICAL		
		Arm	Moment	Arm	Moment	
<u>ELECTRONICS GROUP (Cont'd.)</u>						
<u>GFAE (Cont'd.)</u>						
<u>Hughes' MA-1 System (Cont'd.)</u>						
<u>Radar Subsystem (Cont'd.)</u>						
Waveguide	464316	1.2	37	44	83	100
Fastener MA-1 Antenna		1.4	36	50	73	102
Digital Computer Subsystem	(230.0)		83	(19111)	76	(17591)
Converter	464023	9.5	66	627	81	770
Comparator	464050	9.3	84	781	88	818
Elect. Switch	464051	7.2	66	475	74	533
Memory	464057	32.6	95	3097	73	2380
Relay Assy.	464064	14.6	84	1226	64	934
Converter	464123	13.9	74	1029	81	1126
Computer	464146	25.8	84	2167	73	1883
Memory	464157	11.7	84	983	81	948
Control	464255	23.4	74	1732	73	1708
Test Set	464296	12.6	74	932	64	806
Interconnecting Box	464318	5.7	62	353	74	422
Converter	464323	9.6	74	710	88	845
Computer	464446	20.5	95	1948	89	1825
Amplifier Assy.	464457	17.8	95	1691	81	1442
Generator	464489	6.5	66	429	67	436
Gates	464657	9.3	100	931	77	715
Armament Auxiliaries Sub- system - Excluding Missile						
Launchers	(88.0)		187	(16502)	96	(8443)
Control	464008	11.5	185	2128	101	1162
Selector, Channel	464043	7.6	204	1550	96	730
Power Supply	464087	8.2	191	1566	92	754
Relay Assembly	464264	7.5	197	1478	96	720
Amplifier	464266	9.3	204	1897	101	939
Relay Assembly, Parameter	464364	10.5	204	2142	105	1103
Amplifier	464366	5.3	209	1108	103	546
Relay Assembly, Bay Selector	464464	6.3	197	1241	101	636
Test Set	464496	4.8	191	917	101	485
Amplifier	464866	13.5	66	891	80	1080
Test Panel	464596	3.5	493	1584	82	288

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WEIGHT EMPTY - WEIGHT AND BALANCE DETAILS
 (Cont'd.)

	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>ELECTRONICS GROUP</u> (Cont'd.)					
<u>GFAE</u> (Cont'd.)					
<u>Hughes' MA-1 System</u> (Cont'd.)					
Flight Sensing Subsystem	(190.0)	163	(31101)	69	(13036)
Accelerometer 464061	2.2	429	944	78	172
Amplifier, Interrogator 464009	14.5	199	2886	68	986
Amplifier, Roll & Pitch 464109	8.4	206	1730	70	588
Demodulator Channels 464209	3.8	187	711	70	266
Stable Element 464289	55.8	175	9765	63	3515
Amplifier, Azimuth 464309	12.6	193	2432	68	857
Test Set, Stable Element 464396	8.0	206	1648	66	528
Junction Box and Latitude Counter 464409	8.1	187	1515	66	535
Compensator, AD 464721	9.1	140	1274	78	710
Computer, Air Data 464646	26.0	121	3146	75	1950
Converter, Air Data 464420	36.5	118	4307	70	2555
Converter, Flight Sense 464320	5.0	149	743	75	374
Communication, Navigator and Landing Subsystem	(204.0)	192	(39092)	96	(19592)
Transmitter, Radio 464059	23.0	203	4669	94	2162
Receiver, Radio 464067	26.2	191	5004	94	2463
Antenna, - ADF 464117	10.8	86	929	57	616
Receiver-Transmitter Tacan 464129	25.3	203	5136	103	2606
Receiver, Radio - UHF 464167	26.0	210	5460	97	2522
Tuner, RF-UHF 464225	9.5	197	1872	97	922
Coder-Decoder, Tacan 464229	16.0	197	3152	103	1648
Rev. AILAS Glide Slope 464267	9.5	185	1758	93	884
Transmitter, Range Tacan 464329	12.6	191	2407	103	1298
Receiver, Radio AILAS Localizer 464367	8.5	185	1573	97	825
Power Supply - Communications 464392	12.2	210	2562	103	1257
Transmitter, Bearing-Tacan 464429	14.8	185	2738	103	1524

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WEIGHT EMPTY - WEIGHT AND BALANCE DETAILS
 (Cont'd.)

	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>ELECTRONICS GROUP</u> (Cont'd.)					
<u>GFAE</u> (Cont'd.)					
<u>Hughes' MA-1 System</u> (Cont'd.)					
Communication, Navigator and Landing Subsystem (Cont'd.)					
Amplifier, ADF 464606	9.6	191	1832	90	865
Cockpit Controls & Displays (181.0)		143	(25831)	88	(15918)
Filter, Light 464025	1.3	131	170	113	147
Indicator(Radar Scope)464080	18.0	117	2106	111	1998
Visor, Indicator 464125	0.4	135	54	116	46
Control, Flight Mode 464163	3.5	128	448	100	350
Control, Radar Set 464305	1.9	128	243	100	190
Control, Selector- Channel 464355	2.5	148	370	93	233
Control Selector - Tacan 464405	2.8	137	384	95	266
Control Selector - Communications 464505	5.8	148	858	93	539
Annunciator 464034	0.1	128	13	106	11
Switch Selector 464463	0.5	128	64	100	50
Converter Signal 464520	20.3	205	4162	81	1644
Converter Signal 464620	17.8	207	3690	81	1458
Control, Radar Set 464555	1.3	154	200	92	120
Control, Coder Group 464655	0.9	165	149	90	81
Control, Selector-GCI 464605	3.0	144	432	94	282
Control, Rcvr. -AILAS 464755	1.3	139	181	95	124
Control, Power 464905	3.3	159	525	91	300
Control, Auto Navigation 464955	0.8	140	112	94	75
Sight Non Comp 464169	5.1	128	653	125	638
Recorder 464083	4.3	138	593	98	421
Situation 464180	82.0	120	9840	80	6560
Azimuth Control 464855	1.6	134	214	95	152
Control Receiver 464019	2.5	148	370	93	233
Aircraft Control Subsystem (76.0)		210	(15889)	74	(5565)
Amplifier - Computer, Navigation 464021	6.2	206	1277	79	490
Amplifier-Computer, Roll 464121	11.9	202	2404	68	809
Amplifier-Computer, AILAS 464321	12.3	202	2485	79	972

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WEIGHT EMPTY - WEIGHT AND BALANCE DETAILS
 (Cont'd.)

	Weight	HORIZONTAL		VERTICAL		
		Arm	Moment	Arm	Moment	
<u>ELECTRONICS GROUP</u> (Cont'd.)						
<u>GFAE</u> (Cont'd.)						
<u>Hughes' MA-1 System</u> (Cont'd.)						
Aircraft Control Subsystem(Cont'd.)						
R & P Rate Gyro	464127	3.8	190	722	83	315
Accelerometer	464161	3.4	382	1299	68	231
Amplifier-Computer, Navigation and Landing	464221	13.6	198	2693	68	925
Amplifier-Computer Steering	464421	12.4	198	2455	79	980
Amplifier-Automatic Attack	464621	12.4	206	2554	68	843
IFF Subsystem IR	(51.0)	49	(2475)	73	(3673)	
Duplexer	464032	3.9	39	152	72	281
Isolator	464079	1.6	41	66	86	138
Amplifier Isolator	464108	5.6	66	370	69	386
Waveguide	464116	1.9	42	80	81	154
Duplexer	464132	4.6	39	179	78	359
Waveguide	464152	3.0	39	117	72	216
Transmitter	464159	9.1	38	346	73	664
Detector	464279	0.4	57	23	82	33
Coupler	464284	0.3	42	13	84	25
Synchronizer	464303	5.3	66	350	75	398
Amplifier Converter	464566	7.1	39	277	74	525
Amplifier Synchronizer	464567	8.2	61	502	60	494
IFF Subsystem XP	(41.0)	605	(24816)	151	(6175)	
Isolator	464079	1.6	631	1010	149	238
Amplifier Oscillator	464108	5.3	444	2355	141	747
Transmitter T-425	464159	9.1	639	5815	152	1383
Duplexer	464232	3.9	622	2426	151	589
Switch Waveguide	464252	3.0	625	1875	183	549
Attenuator	464279	0.4	610	244	145	58
Tuned Cavity	464332	2.6	620	1612	144	374
Amplifier Synchronizer	464333	7.5	619	4645	150	1122
Coupler Directional	464384	0.5	621	311	155	78
Amplifier Converter	464666	7.1	637	4523	146	1037
IFF Subsystem Ground to Air	(48.0)	194	(9299)	71	(3405)	
Coder - Decoder	464028	12.6	186	2344	80	1008
Switch Transmission	464263	6.1	178	1086	77	470
Receiver Transmitter	464265	29.3	201	5869	66	1927

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WEIGHT EMPTY - WEIGHT AND BALANCE DETAILS
 (Cont'd.)

	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>ELECTRONICS GROUP (Cont'd.)</u>					
<u>GFAE (Cont'd.)</u>					
<u>Hughes' MA-1 System (Cont'd.)</u>					
<u>Power Supply Subsystem</u>	(297.0)	330	(97829)	83	(24564)
Interconnecting Box #1 464018	6.8	177	1203	92	624
Reactor-40 Milli Henry (2) 464035	25.8	484	12487	80	2064
Regulator, Voltage- Computer 464062	5.3	185	981	92	488
Generator, AC/DC 464089	69.4	505	35047	71	4927
Filter, D.C. +300 V. D.C. 464092	5.3	185	981	105	557
Interconnecting Box #2 464118	6.3	179	1128	103	649
Reactor-100 Milli Henry 464135	10.8	484	5227	74	799
Relay Switch-Pwr Load 464162	25.2	395	9954	97	2444
Filter, D.C. -250 V.D.C. 464192	20.6	72	1483	71	1463
Generator 464326	10.3	72	742	65	670
Regulator, Voltage Computer 464292	4.3	97	417	82	353
Generator D.C. 464189	31.0	505	15655	78	2418
Regulator, Voltage Resolver 464491	10.8	179	1933	103	1112
Filter, D.C. +300 V. D.C. 464591	6.8	97	660	65	442
Regulator, Volt - D.C. Mag. Amp. #1 464692	12.8	209	2675	96	1229
Filter, D.C. - 140V. D.C. 464791	5.3	72	382	82	435
Regulator, Volt - D.C. Mag. Amp. #2 464792	10.0	179	1790	96	960
Filter, D.C. +150 V. D.C. 464891	3.9	191	745	105	410
Regulator, Volt A.C. Generators 464892	21.8	179	3902	97	2115
Filter, D.C. Power - +150 V. D.C. 464991	4.5	97	437	90	405
<u>Miscellaneous</u>	(27.0)	191	(5148)	63	(1710)
Recorder and Rack 464149	25.0	196	4900	63	1575
Control-test panel 464796	2.0	124	248	68	135

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WEIGHT EMPTY - WEIGHT AND BALANCE DETAILS
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	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>ELECTRONICS GROUP (Cont'd.)</u>					
<u>GFAE (Cont'd.)</u>					
<u>Hughes' MA-1 System (Cont'd.)</u>					
<u>Installation Provisions</u> (359.0) 138 (49689) 83 (29647)					
Rack - L.H. Fwd. Compartment	464073	77.0	81	6237	75 5775
Rack - Ant. Transmitter Group	464173	24.5	47	1152	74 1813
Rack - R.H. Forward Compartment	464273	84.2	80	6744	78 6575
Rack - Stable Platform Amplifier	464374	18.1	196	3548	66 1195
Rack - Stable Platform Generator	464474	5.5	175	963	60 330
Rack	464502	1.0	186	186	76 76
Rack - Radar Search	464002	1.1	112	123	110 121
Rack - L.H. Upper	464074	45.0	194	8730	98 4410
Rack - R.H. Upper	464174	50.7	194	9836	98 4969
Rack -	464573	1.0	140	140	63 63
Rack -	464673	2.4	118	283	66 158
Rack - Dehydrator	464674	0.9	213	192	73 66
Rack -	464773	4.5	121	545	75 338
Rack - AFCS Lower	464873	18.8	202	3798	73 1372
Rack - Dehydrator	464774	0.9	213	192	72 65
Rack - Situation Ind.	464102	3.9	120	468	81 316
Rack - Aft APX	464274	5.4	637	3440	147 794
Rack - IFF	464402	1.3	201	261	62 81
Rack - Signal Data	464602	10.3	200	2060	81 834
Rack - Rate	464611	1.5	135	203	165 158
Rack - Fwd. APX	464973	1.0	588	588	138 138
<u>GFAE - Miscellaneous</u> (21.0) 193 (4044) 72 (1505)					
Computer Flight Directional	60-6309	10.9	200	2080	75 780
Gyro Transmitter	60-6311	3.7	212	784	72 266
Accelerometer	60-6300	1.4	429	601	77 108
Switch - Gyro	60-5938	1.4	199	279	59 83
Indicator-Frequency Channel	81-3382	1.0	128	128	104 104
Probe-Free Air Temp Transducer	60-1603	0.4	151	60	60 24
		2.2	51	112	64 140

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WEIGHT EMPTY - WEIGHT AND BALANCE DETAILS
 (Cont'd.)

	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>ELECTRONIC GROUP</u> (Cont'd.)					
CFE	(41.0)	218	(8920)	93	(3796)
Pressurization Tubing	5.3	130	689	80	424
Antennas	26.8	232	6228	101	2697
Switches, Relays, Fuses, Etc.	8.9	225	2003	77	675
<u>Installation</u>	(425.0)	234	(99479)	81	(34504)
Antenna Installation	18.7	193	3604	96	1786
Bracketry	2.5	330	825	91	227
Mounting, Sight	4.7	130	611	123	577
Equipment Installation and Cabling	351.5	240	84230	79	27939
Electronic Instl.	7.8	301	2347	96	747
Miscellaneous Supports	22.6	239	5391	77	1733
Support-Radar Scope	3.1	115	355	108	336
Support-Situation Display	3.0	110	330	93	279
Radar Installation	5.1	142	726	70	358
Transducer Attachment	1.0	56	56	70	70
Support - Harness	5.0	201	1004	90	452
<u>ARMAMENT GROUP</u>					
	(626.0)	308	(192876)	81	(50891)
<u>Missile Installation</u>	(505.8)	306	(154620)	80	(40258)
Launchers	86.3	316	27283	75	6485
Displacing Gear, Fwd.	103.8	256	26581	77	8011
Displacing Gear, Aft.	74.0	344	25451	76	5653
Trunnions	17.6	232	4078	78	1364
Uplatch and Stops	14.1	360	5073	79	1114
Snubbers	6.8	326	2219	86	585
Trunnion Supports	57.8	269	15572	79	4587
Hold Back Cams	1.6	298	477	82	131
Actuators	70.6	337	23798	90	6329
Valves	3.3	391	1290	81	266
Plumbing	21.8	312	6794	85	1858
Actuator Supports	5.4	337	1822	98	528
Baffle	22.0	360	7918	72	1594
Seal	1.8	455	819	89	161
Controls - Electrical	10.7	302	3235	81	863
Indicators - Electrical Controls	0.5	318	159	76	38

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WEIGHT EMPTY - WEIGHT AND BALANCE DETAILS
 (Cont'd.)

	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>ARMAMENT GROUP</u> (Cont'd.)					
<u>Missile Installation</u> (Cont'd.)					
Intervalometer	6.4	259	1658	90	576
Relays	1.3	302	393	88	115
<u>MB-1 System</u>	(73.1)	341	(24909)	83	(6038)
Ejection Mechanism and Beam	52.9	348	18424	84	4416
Nose Deflector	8.5	295	2504	75	636
Chocks	1.9	333	633	79	151
Supports - Chocks	0.8	356	285	80	64
Controls - Electrical	6.6	344	2271	86	565
Relays	1.1	297	327	89	98
Lanyard	1.3	358	465	83	108
<u>Common Installation</u>	(47.1)	283	(13347)	98	(4595)
Supports	2.3	298	685	89	205
Controls - Electrical	42.0	282	11837	99	4174
Relays	0.3	267	80	87	26
Boresight	1.6	314	502	66	106
Bonding Connection	0.9	270	243	93	84
<u>FURNISHINGS AND EQUIPMENT GROUP</u>	(290.0)	190	(55187)	93	(26924)
<u>Accommodations for Personnel</u>	(188.0)	162	(30507)	94	(17752)
<u>Pilot's Seat Installation</u>	(142.7)	163	(23300)	100	(14229)
Seat	63.3	158	9997	99	6265
Safety Belt and Initiator	4.2	155	651	95	399
Harness and Inertia Reel	3.8	170	646	90	342
Seat Adjustment Mechanism	7.9	160	1265	91	715
Catapult, Initiator, and Exactor	35.7	168	6015	103	3672
Tracks and Supports	27.8	170	4726	102	2836
<u>Oxygen Installation</u>	(37.1)	152	(5653)	74	(2747)
Converter and Liquid Oxygen	24.3	157	3816	72	1750
Control Panel (Regulator)	2.0	133	266	93	186
Supports - Converter	2.5	158	394	73	182

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WEIGHT EMPTY - WEIGHT AND BALANCE DETAILS
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	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>FURNISHINGS AND EQUIPMENT GROUP (Cont'd.)</u>					
<u>Accommodations for Personnel (Cont'd.)</u>					
<u>Oxygen Installation (Cont'd.)</u>					
Plumbing	5.4	139	749	74	400
Filler Valve Installation	0.9	124	112	62	56
Mask Defog	2.0	158	316	87	173
Miscellaneous Accommodations	(8.2)	190	(1554)	95	(776)
Ventilated Suit Provisions	1.5	162	243	93	139
Anti-G Suit Provisions	6.7	196	1311	95	637
<u>Miscellaneous Equipment</u>	(68.7)	171	(11747)	92	(6315)
Data Case Installation	1.5	162	243	85	127
Anti-Glare Shield	3.9	123	480	113	439
Windshield Rain Removal Instl.	36.8	195	7160	87	3201
Instrument Boards	14.3	125	1768	102	1456
Consoles	11.5	153	1755	90	1040
Stowage - Pins and Pads	0.6	453	272	60	36
Plate - Rudder Streamline	0.1	685	69	158	16
<u>Furnishings</u>	(11.3)	182	(2056)	90	(1015)
Floor Covering	6.4	139	892	82	523
Insulation	0.5	150	75	94	47
Cockpit Trim	1.8	152	274	102	184
Insignia and Service Markings	2.6	313	815	100	261
<u>Emergency Equipment</u>	(22.0)	494	(10877)	83	(1842)
Fire Detection - Engine Compartment	21.0	510	10717	83	1759
Quick Disconnects - On Seat	1.0	160	160	83	83
<u>AIR CONDITIONING AND ANTI-ICING GROUP</u>	(407.0)	276	(112329)	100	(40789)
<u>Air Conditioning</u>	(333.0)	288	(96001)	101	(33792)
Emergency Pressure System	1.1	216	238	79	87
Refrigeration Unit	91.8	295	27082	100	9180

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WEIGHT EMPTY - WEIGHT AND BALANCE DETAILS
 (Cont'd.)

	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>AIR CONDITIONING AND ANTI-ICING GROUP</u> (Cont'd.)					
<u>Air Conditioning (Cont'd.)</u>					
Pressure Difference Switch	0.9	100	90	100	90
Insulation	16.7	410	6851	121	2024
Ducting	(124.7)	306	(38182)	103	(12894)
Heat Exchanger Cooling	26.6	303	8052	111	2952
Bleed Air	40.4	416	16802	116	4675
Missile Bay Heating	4.8	305	1463	81	387
Cabin Air	23.9	208	4962	93	2222
Forward Electronics	18.5	185	3430	84	1552
Aft Electronics	4.4	198	870	74	327
Fin Electronics	6.1	427	2603	128	779
Ground Cooling Connection	8.7	310	2698	98	848
Pressure Test Fittings	0.4	108	44	81	32
Controls	(68.4)	213	(14573)	98	(6719)
Electrical	29.8	184	5470	97	2898
Pneumatic	38.6	236	9103	99	3821
Supports	17.7	296	5278	97	1683
Pressurization Sealing	2.6	371	965	90	235
<u>Anti-Icing</u>	(74.0)	221	(16328)	95	(6997)
<u>Air Induction</u>	(29.6)	281	(8331)	92	(2721)
Ducting - Duct Lip	14.7	276	4059	96	1408
Insulation	1.7	279	474	91	155
Electrical Controls	5.5	320	1759	86	473
Pneumatic Controls	4.8	300	1440	85	408
Circuitry	2.2	195	430	100	220
Supports - Body	0.7	241	169	81	57

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WEIGHT EMPTY - WEIGHT AND BALANCE DETAILS
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	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>AIR CONDITIONING AND ANTI-ICING GROUP</u> (Cont'd.)					
<u>Anti-Icing (Cont'd.)</u>					
Radome	(11.1)	228	(2533)	93	(1030)
Tank Installation	3.7	304	1124	112	416
Plumbing	5.1	188	961	81	414
Valves	2.0	177	354	85	169
Electrical Control	0.1	452	45	97	10
Circuitry	0.2	244	49	103	21
Windshield	(28.6)	134	(3843)	96	(2752)
Electrical Controls	23.0	127	2915	94	2165
Circuitry	5.0	172	860	106	530
Supports - Body	0.6	113	68	95	57
Pitot	(4.7)	345	(1621)	105	(494)
Electrical Controls	1.0	145	145	79	79
Circuitry	3.7	399	1476	112	415
<u>AUXILIARY GEAR GROUP</u>	(69.0)	612	(42210)	115	(7952)
<u>Arresting</u>	(58.0)	650	(37985)	120	(7030)
Attachment Fittings	12.2	535	6530	65	775
Deceleration Parachute	22.7	705	16001	135	3063
Deceleration Container and Fittings	6.5	689	4481	144	936
Deceleration Controls & Mech.	12.4	634	7864	134	1660
Drag Chute Emergency System	4.2	740	3109	142	596
<u>Handling</u>	(11.0)	384	(4225)	84	(922)
Fitting-Tiedown	0.6	557	334	83	50
Fitting-Jacking	5.5	382	2102	78	428
Fitting-Leveling	1.9	238	453	76	144
Fitting-Hoisting	3.0	445	1336	100	300

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NORMAL USEFUL LOAD - WEIGHT AND BALANCE DETAILS

JP-4 FUEL @ 6.5 LBS. PER GALLON

	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
Pilot, Survival Kit and Parachute	(286)	149	(42697)	97	(27853)
Pilot	210	147	30870	99	20790
Survival Kit container	23	152	3496	88	2024
Survival kit contents	28	152	4256	88	2464
Parachute	25	163	4075	103	2575
Fuel - Internal Unusable 37.4 Gal.	243	461	112100	82	19997
Fuel - Internal Usable (1304 Gal.)	(8476)	435	(3689029)	89	(751062)
Wing tank #1 299 Gal.	1944	397	771768	84	163296
Wing tank #2 311 Gal.	2021	515	1040815	84	169764
Wing tank #3 424 Gal.	2756	516	1422096	87	239772
Fuselage tank "F" 240 Gal.	1560	235	366600	103	160680
Lines 30 Gal.	195	450	87750	90	17550
Oil (8.0 Gal.)	(60)	505	(30300)	106	(6360)
Trapped 3.5 Gal.	26	505	13130	106	2756
Engine 4.5 Gal.	34	505	17170	106	3604
Armament (1375)		338	(465191)	71	(97918)
Falcon missiles GAR-3/-4 (2 ea.)	546	324	176690	72	39050
Rocket type MB-1	828	348	288144	71	58788
MB-1 ejection cartridges (5)	1	357	357	80	80
TOTAL NORMAL USEFUL LOAD	10440	415.6	4339317	86.5	903190

NOTE: No fuel in "T" tank.

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NORMAL GROSS WEIGHT AND BALANCE CALCULATIONS JP-4 FUEL

(1) NORMAL TAKE-OFF

	USABLE FUEL (GAL.)	C.G. (% MAC)	WEIGHT	HORIZONTAL		VERTICAL	
				Arm	Moment	Arm	Moment
Weight Empty - Gear Down	---	26.7	23448	422.0	9894511	91.5	2144872
Normal Useful Load	1304	24.4	10440	415.6	4339317	86.5	903190
NORMAL TAKE-OFF - GEAR DOWN	1304	26.0	33888	420.0	14233828	89.9	3048062
Moment Change - Gear Up					- 3848		40046
NORMAL TAKE-OFF - GEAR UP	1304	26.0	33888	419.9	14229980	91.1	3088108

(2) MOST FORWARD C.G.

	USABLE FUEL (GAL.)	C.G. (% MAC)	WEIGHT	HORIZONTAL		VERTICAL	
				Arm	Moment	Arm	Moment
Normal Take-Off - Gear Up	1304	26.0	33888	419.9	14229980	91.1	3088108
Less Usable Fuel	-1304		- 8476	435	-3689029	89	-751062
MOST FORWARD C.G.	---	24.2	25412	414.8	10540951	92.0	2337046

(3) MOST AFT C.G. - SUBSONIC

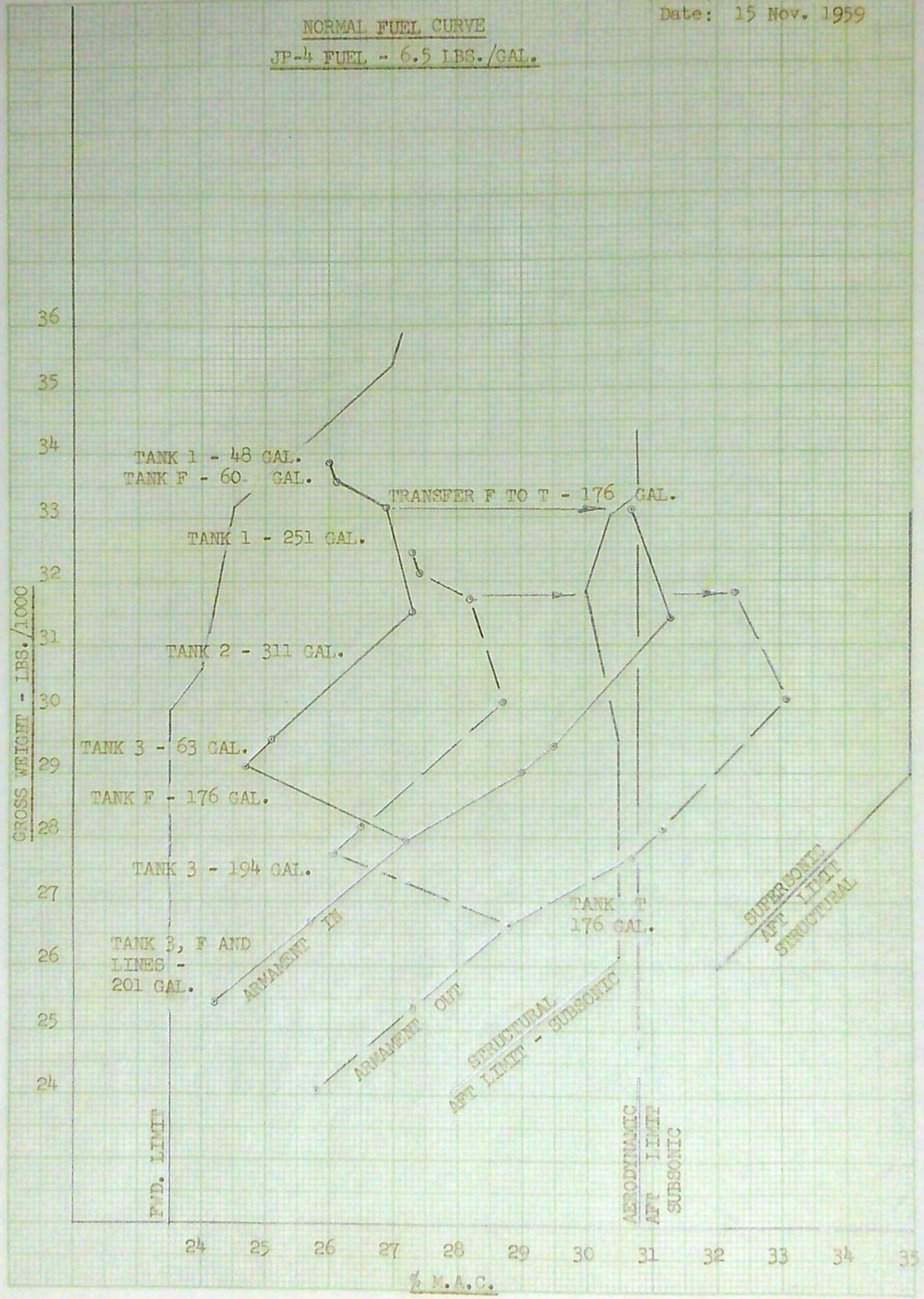
	USABLE FUEL (GAL.)	C.G. (% MAC)	WEIGHT	HORIZONTAL		VERTICAL	
				Arm	Moment	Arm	Moment
Normal Take-Off - Gear Down	1304	26.0	33888	420.0	14233828	89.9	3048062
Less Fuel - Tank #1	- 299		- 1944	397	- 771768	84	-163296
Less Fuel - Tank #2	- 311		- 2021	515	-1040815	84	-169764
Less Fuel - Tank #3	- 63		- 410	516	- 211560	87	- 35670
Less Fuel - Tank "F"	- 236		- 1534	235	- 360490	103	-158002
Less Armament	---		- 1375	338	- 465191	71	- 97918
MOST AFT C.G. - SUBSONIC	395	28.8	26604	427.9	11384004	91.1	2423412

(4) MOST AFT C.G. - SUPERSONIC

	USABLE FUEL (GAL.)	C.G. (% MAC)	WEIGHT	HORIZONTAL		VERTICAL	
				Arm	Moment	Arm	Moment
Normal Take-Off - Gear Up	1304	26.0	33888	419.9	14229980	91.1	3088108
Less Fuel - Tank #1	- 299		- 1944	397	- 771768	84	-163296
Less Fuel - Tank "F"	- 60		- 390	235	- 91650	103	- 40170
Transfer from "F" Tank to "T" Tank	- 176		- 1144	235	- 268840	103	-117832
Less Armament	+ 176		+ 1144	573	+ 655512	90	+102960
MOST AFT C.G. - SUPERSONIC	945	33.1	30179	440.3	13288043	91.8	2771852

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NORMAL FUEL CURVE
JP-4 FUEL - 6.5 LBS./GAL.



K&E KOLBERT & EBERS CO. 10 X 10 TO THE 1/4 INCH 3201-110

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OVERLOAD (FULL INTERNAL FUEL) AND EXTERNAL USEFUL LOADS - WEIGHT AND BALANCE DETAILS

JP-4 FUEL @ 6.5 LBS. PER GALLON

	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
Pilot, Survival Kit and Parachute	(286)	149	(42697)	97	(27853)
Pilot	210	147	30870	99	20790
Survival Kit container	23	152	3496	88	2024
Survival kit contents	28	152	4256	88	2464
Parachute	25	163	4075	103	2575
Fuel - Internal Unusable	37.4 Gal. 243	461	112100	82	19997
Fuel - Internal Usable	(1514 Gal.)(9841)	454	(4471174)	89	(873912)
Wing tank #1	299 Gal. 1944	397	771768	84	163296
Wing tank #2	311 Gal. 2021	515	1040815	84	169764
Wing tank #3	424 Gal. 2756	516	1422096	87	239772
Wing tank "T"	210 Gal. 1365	573	782145	90	122850
Fuselage tank "F"	240 Gal. 1560	235	366600	103	160680
Lines	30 Gal. 195	450	87750	90	17550
Oil	(8.0 Gal.)(60)	505	(30300)	106	(6360)
Trapped	3.5 Gal. 26	505	13130	106	2756
Engine	4.5 Gal. 34	505	17170	106	3604
Armament	(1375)	338	(465191)	71	(97918)
Falcon missiles GAR-3/-4 (2 each)	546	324	176690	72	39050
Rocket, type MB-1	828	348	288144	71	58788
MB-1 ejection cartridges (5)	1	357	357	80	80
TOTAL OVERLOAD (FULL INTERNAL FUEL)					
USEFUL LOAD	11805	433.8	5121462	86.9	1026040
External Fuel, Tank - Pylons	(3320)	444	(1472567)	60	(200022)
Fuel, external	(460 Gal.)(2990)	443	(1323608)	60	(179400)
Unusable	6 Gal. 39	494	19266	60	2340
Usable	454 Gal. 2951	442	1304342	60	177060
External Integral tank - pylons	330	451	148959	62	20622
OVERLOAD PLUS EXTERNAL USEFUL LOAD	15125	436.0	6594029	81.1	1226062

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OVERLOAD AND EXTERNAL GROSS WEIGHT AND BALANCE CALCULATIONS JP-4 FUEL

(1) OVERLOAD TAKE-OFF

	USABLE FUEL (GAL.)	C.G. % M.A.C.	WEIGHT	HORIZONTAL		VERTICAL	
				Arm	Moment	Arm	Moment
Weight Empty - Gear Down	---	26.7	23448	422.0	9894511	91.5	2144872
Overload Useful Load	1514	30.8	11805	433.8	5121462	86.9	1026040
OVERLOAD TAKE-OFF - Gear Down	1514	28.1	35253	425.9	15015973	89.9	3170912
Moment Change - Gear Up	---				- 3848		40046
OVERLOAD TAKE-OFF - Gear Up	1514	28.0	35253	425.8	15012125	91.1	3210958

(2) EXTERNAL TAKE-OFF

	USABLE FUEL (GAL.)	C.G. % M.A.C.	WEIGHT	HORIZONTAL		VERTICAL	
				Arm	Moment	Arm	Moment
Weight Empty - Gear Down	---	26.7	23448	422.0	9894511	91.5	2144892
External Useful Load	1968	31.6	15125	436.0	6594029	81.1	1226062
EXTERNAL TAKE-OFF - Gear Down	1968	28.6	38573	427.5	16488540	87.4	3370934
Moment Change - Gear Up					- 3848		40046
EXTERNAL TAKE-OFF - Gear Up	1968	28.6	38573	427.4	16484692	88.4	3410980

(3) MOST AFT C.G. - SUBSONIC

	USABLE FUEL (GAL.)	C.G. % M.A.C.	WEIGHT	HORIZONTAL		VERTICAL	
				Arm	Moment	Arm	Moment
OVERLOAD TAKE-OFF - Gear Down	1514	28.1	35253	425.9	15015973	89.9	3170912
Less Fuel - Tank #1	-299		-1944	397	-771768	84	-163296
Less Fuel - Tank #2	-311		-2021	515	-1040815	84	-169764
Less Fuel - Tank #3	- 63		- 410	516	- 211560	87	- 35670
Less Fuel - Tank #F"	-236		-1534	235	- 360490	103	-158002
Less Fuel - Tank "T"	-170		-1105	573	- 633165	90	- 99450
Less Armament	---		-1375	338	- 465191	71	- 97918
MOST AFT C.G. - SUBSONIC	435	29.3	26864	429.3	11532984	91.1	2446812

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OVERLOAD AND EXTERNAL GROSS WEIGHT AND BALANCE CALCULATIONS JP-4 FUEL
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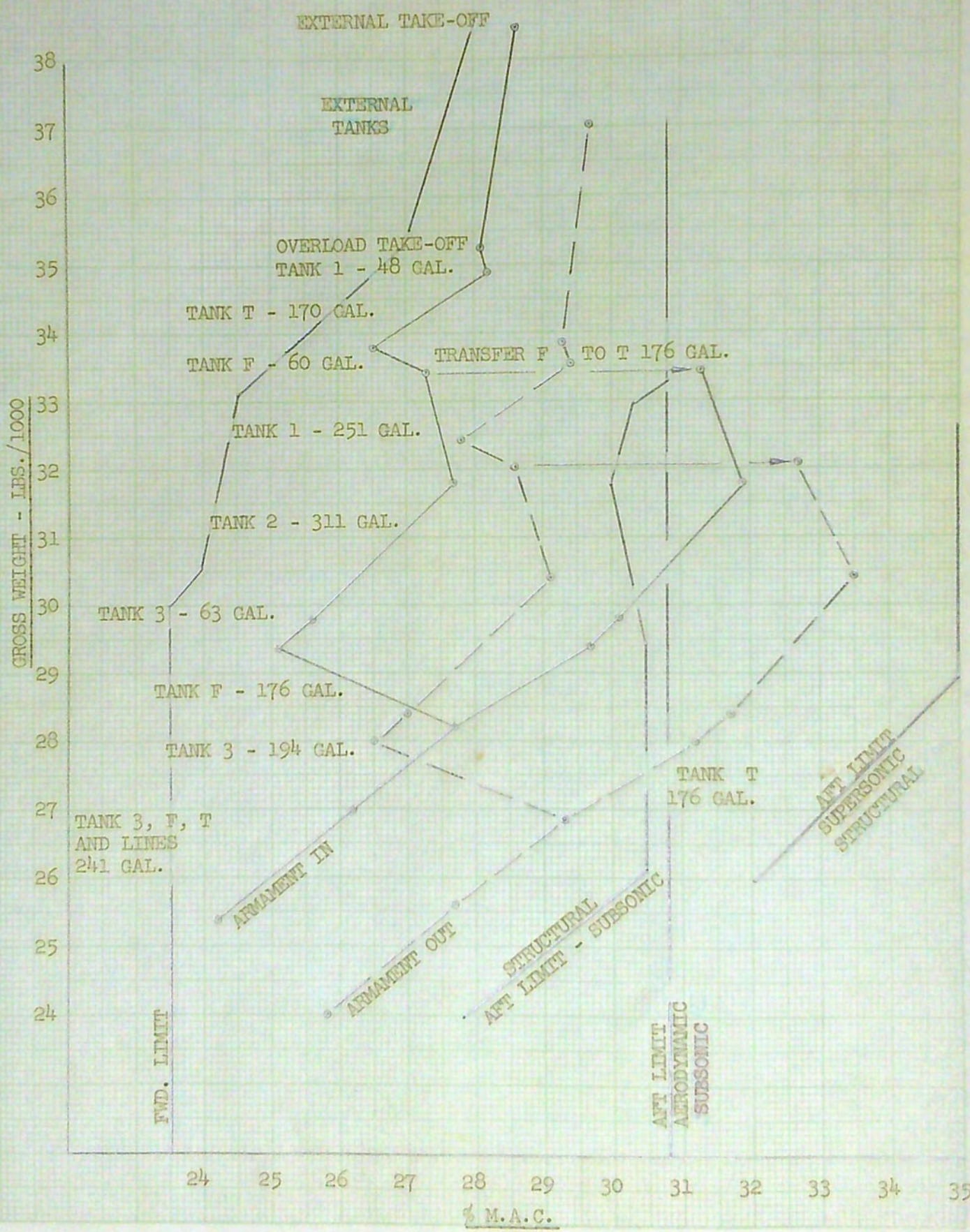
(4) MOST AFT C.G. - SUPERSONIC

	USABLE FUEL (GAL.)	C.G. % M.A.C.	WEIGHT	HORIZONTAL		VERTICAL	
				Arm	Moment	Arm	Moment
OVERLOAD TAKE-OFF - Gear Up	1514	28.0	35253	425.8	15012125	91.1	3210958
Less Fuel - Tank #1	-299		-1944	397	-771768	84	-163296
Less Fuel - Tank "F"	- 60		- 390	235	- 91650	103	- 40170
Less Fuel - Tank "T"	-170		-1105	573	-633165	90	- 99450
Transfer from "F" Tank to "T" Tank	-176 +176		-1144 +1144	235 573	-268840 +655512	103 90	-117832 +102960
Less Armament	---		-1375	338	-465191	71	- 97918
MOST AFT C.G. SUPERSONIC	985	33.5	30439	441.4	13437023	91.8	2795252

NOTE: Most Forward C.G., is the same as shown for Normal Gross Weight and Balance Calculations.

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OVERLOAD FUEL CURVE
WITH EXTERNALS



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MOMENT CHANGE - LANDING GEAR RETRACTION
 (Retractable Items Only)

	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>LANDING GEAR EXTENDED</u> (Airplane in Static Condition)	(1269.3)	406	(514894)	44	(56209)
<u>Main</u>	(1070.9)	452	(484110)	45	(48388)
Fairing	53.4	452	24137	54	2906
Door	67.0	452	30280	45	3029
Door Mechanism	33.2	452	15005	67	2226
Wheels	96.0	452	43392	25	2400
Tires	102.0	452	46104	25	2550
Tubes	15.5	452	7006	25	388
Air in Tubes	2.2	452	994	25	55
Brakes	190.0	452	85880	25	4750
Drag Braces	38.4	452	17357	63	2419
Side Braces	63.0	456	28728	72	4509
Shock Struts	374.2	452	169138	54	20241
Retraction Actuators	30.2	447	13499	81	2446
Fluid in Retraction Actuators	5.8	447	2590	81	469
<u>Nose</u>	(198.4)	155	(30784)	39	(7821)
Door	22.9	133	3043	52	1189
Door Mechanism	4.2	130	546	55	233
Wheels	19.6	162	3175	21	412
Tires	16.0	162	2592	21	336
Tubes	4.3	162	697	21	90
Air in Tubes	0.6	162	97	21	13
Drag Brace	17.6	145	2552	58	1021
Shock Strut	70.6	158	11151	43	3018
Steering Damper	32.8	164	5379	31	1029
Steering Actuator	5.9	167	986	38	223
Retraction Actuator	3.4	145	493	66	224
Fluid in Retraction Actuator	0.5	146	73	66	33

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MOMENT CHANGE - LANDING GEAR RETRACTION
 (Retractable Items Only)
 (Cont'd.)

	Weight	HORIZONTAL		VERTICAL	
		Arm	Moment	Arm	Moment
<u>LANDING GEAR RETRACTED</u>	(1269.3)	403	(511046)	76	(96255)
<u>Main</u>	(1070.9)	452	(484110)	78	(83763)
Fairing	53.4	452	24137	79	4219
Door	67.0	452	30280	66	4422
Door Mechanism	33.2	452	15005	70	2324
Wheels	96.0	452	43392	72	6912
Tires	102.0	452	46104	72	7344
Tubes	15.5	452	7006	72	1116
Air in Tubes	2.2	452	994	72	158
Brakes	190.0	452	85880	78	14820
Drag Struts	38.4	452	17357	83	3187
Side Struts	63.0	456	28728	87	5481
Shock Struts	374.2	452	169138	82	30684
Retraction Actuators	30.2	447	13499	86	2597
Fluid in Retraction Actuators	5.8	447	2590	86	499
<u>Nose</u>	(198.4)	136	(26936)	63	(12492)
Door	22.9	133	3043	54	1237
Door Mechanism	4.2	130	546	60	252
Wheels	19.6	115	2254	68	1333
Tires	16.0	115	1840	68	1088
Tubes	4.3	115	495	68	292
Air in Tubes	0.6	115	69	68	41
Drag Struts	17.6	152	2675	71	1250
Shock Strut	70.6	142	10025	63	4448
Steering Damper	32.8	140	4592	58	1902
Steering Actuator	5.9	137	808	65	384
Retraction Actuator	3.4	151	513	68	231
Fluid in Retraction Actuator	0.5	151	76	68	34
<u>MOMENT CHANGE - LANDING GEAR RETRACTION</u>			- 3848	40046	

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LIST OF AUTHORIZED CHANGES

		AUTHORITY		WEIGHT EMPTY	
		CCN	NO.	WEIGHT	MOMENT
ECP 4117	Incorporation of ARDC vertical instruments			*	
ECP 4207	Addition of engine anti-icing valve failure warning	42		3.0	798
ECP 4214	Addition of engine oil filler cap access door	57		1.1	558
ECP 4251	Replacement of CFE and GFAE hydraulic and pneumatic gages			0.6	00
ECP 4287	Redesign engine idle thrust	82		3.4	1367
ECP 4319R1	Redesign of optical sight installation	118		1.0	128
ECP 4328	Light installation - ambient augmentation	102		4.0	542
ECP 4333	Thermostatic switch installation	92		1.0	356
ECP 4379	Addition of exhaust nozzle drain line to accommodate engine change	104		1.0	552
TOTAL AUTHORIZED CHANGES				15.1	4301

*No weight is shown for this ECP because it is included in ZD-8-005C Specification weights (see page 98).

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ITEMS NOT ON THIS AIRPLANE BUT MAY BE

INSTALLED ON THE ULTIMATE TACTICAL AIRPLANE

ECP	SHIP EFFECT		WEIGHT	ARM	MOMENT
4230	58-772-On	Addition of engine fuel supply strainer	14.0	532	7448
4216	59-001-On	IFF/Tacan antenna multiplexing system	5.9	- 47	- 280
4221R1	001-On	Deletion of dual oxygen system	- 5.8	138	- 802
4225R2	001-On	Relocation of ground interphone jacks	3.0	319	959
4226	001-On	Revision of hoses to constant speed drive	1.0	500	500
4255	001-On	Relocation of emergency generator test switch	1.0	300	300
4282	001-On	Elimination of power distribution noise	6.0	300	1800
4331	001-On	Rocket and missile ignitor circuit revision	56.0	299	16745
4341	001-On	Installation provisions for GAR-3A and -4A falcon missiles	46.0	345	15875
4358	001-On	Activation of AFCS automatic modes	1.0	170	170
4312	031-On	Installation of counter-counter measure	1.0	168	168
4386	031-On	Revision of nose wheel well splash cover to increase durability	5.6	162	907
4190R1	060-On	Incorporation of inlet duct mach warning light	2.2	207	455
4257	060-On	Addition of fuel quantity tank 3 indicator	1.0	231	231

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ITEMS NOT ON THIS AIRPLANE BUT MAY BE

INSTALLED ON THE ULTIMATE TACTICAL AIRPLANE

(Cont'd.)

ECP	SHIP EFFECT		WEIGHT	ARM	MOMENT
4265	060-On	Addition of hydraulic pressure test provisions	1.0	225	225
4272	060-On	Mounting and power provisions for airborne recorder	6.0	208	1245
4364	060-On	Addition of fuel line coupling boots	3.5	320	1120
4049	087-On	Part III Supersonic pilot escape system and seat installation	149.0	168	24997
4176	087-On	Tail hook installation	80.0	581	46480
4260	087-On	Installation of time division data link	41.0	177	7253
4268	087-On	Part II Installation of electric driven boost pump	9.4	274	2575
4313	087-On	Installation of infra-red sight augmentation	70.0	227	15908
4430	087-On	New filters for IFF/Tacan antenna	4.4	193	851
4408	112-On	Addition of provisions for altitude hold and heading pre-select	1.0	175	175
4418	112-On	Installation of vari-ramp time delay	2.5	225	563
4375	136-On	Reanalysis and improvement to hydraulic system	1.5	452	678
4391	136-On	Replacement of hydraulic quick disconnect couplings	1.0	522	522
4352	∅	Incorporation of throttle lever rate of travel reduction	6.5	150	972

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ITEMS NOT ON THIS AIRPLANE BUT MAY BE
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ECP	SHIP EFFECT		WEIGHT	ARM	MOMENT
4365	∅	LE-6 launcher	50.0	317	15850
4388	∅	Revision of ARDC wiring	1.0	200	200
4420	∅	Revision of MA-1 system switching	1.0	144	144
TOTAL			566.7	290	164234

∅ No effectivity assigned at time report was written.

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GOVERNMENT FURNISHED AIRCRAFT EQUIPMENT WEIGHT VARIATION

	AERNO NO.	NO. REQD.	OO5C SPEC. WEIGHT	CURRENT WEIGHT	OVER OR UNDER WEIGHT	CHANGE AUTHORITY
<u>WEIGHT EMPTY</u>						
<u>LANDING GEAR</u>						
Main						
Wheel Assembly, 30 x 8.8 Type VII	41-1682	2	92.0	96.0	+ 4.0	
Casing, 30 x 8.8, 20 Ply Rating, High Speed, Type VII	41-1693	2	113.0	102.0	- 11.0	
Tube, Inner, 30 x 8.8, Type VII, Fabric Base	41-1678	2	13.2	15.5	+ 2.3	
Brake Assembly, 30 x 8.8, Wheel Type VII	41-1683	2	193.3	190.0	- 3.3	
Nose						
Wheel Assembly, 18 x 4.4 Type VII	41-1679	2	22.5	19.6	- 2.9	
Casing, 18 x 4.4, 8 Ply Rating High Speed, Type VII	41-1680	2	17.0	16.0	- 1.0	
Tube, Inner, 18 x 4.4, Type VII	41-1681	2	4.1	4.3	+ 0.2	
<u>POWER PLANT</u>						
Engine Turbo Jet, Including Iris Afterburner Nozzle P & W J75-P-17 (As instal- led wet)	35-6066	1	5911.0	5816.0	- 95.0	
Starter-Combustion, Aircraft Engine, Type MA-11,	42-8830	1	48.0	48.0		
Constant Speed Accessory Drive System Consisting of:						
Gear Box-Engine Mounted Transmission & Gear Box Assembly Fuselage - Mounted Including Pads	48-0571 48-0572 48-0545	1	15.8	15.8		
	48-0546	1	107.0	107.0		
Cover-Drive Shaft	48-0556	2	0.7	1.0	+ 0.3	
Shaft-Drive Connecting	48-0557	1	4.5	5.2	+ 0.7	
Controller-Frequency and Load #663439	42-0544	1	4.5	4.5		

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GOVERNMENT FURNISHED AIRCRAFT EQUIPMENT WEIGHT VARIATION

	AERNO NO.	NO. REQD.	OO5C SPEC. WEIGHT	CURRENT WEIGHT	OVER OR UNDER WEIGHT	CHANGE AUTHORITY
<u>WEIGHT EMPTY (Cont'd.)</u>						
<u>INSTRUMENTS</u>						
Altimeter (Standby) Pressure AAU-2/A, WCLC1-1-50A	60-6301	1	1.3	1.5	+ 0.2	
Clock - Aircraft, 8-day, A-13A, MIL-C-6499	60-1201	1	0.5	0.5		
Compass-Magnetic, Pilots Standby, MB-1	60-1447	1	0.7	0.7		
Computer-Flight Director, CPU-4/A, WCLCI-i-47A Amend. #1	60-6309	1	10.0	10.4	+ 0.4	
Detector, Magnetic Azimuth DT-173/AJN MIL-D-25521	60-1487	1	1.5	1.5		
Generator-Tachometer, Electric, MIL-G-9398	61-8731	1	1.6	1.6		
Gyroscope Assembly, AF/A34G-1- Consisting of:						
Gyroscope, Displacement	60-6316	1	21.5	21.8	+ 0.3	
Amplifier-Power Supply	60-6317	1	9.0	9.0		
Control Compass	60-6318	1	1.8	1.1	- 0.7	
Adapter, Compass	60-6319	1	10.0	10.3	+ 0.3	
Gyroscope-Rate Switching, MC-1, MIL-G-25591	60-5938	1	1.5	1.4	- 0.1	
Transmitter - Rate Gyroscope, TRU-2/A, WCLC1-1-46, Amend. #1	60-6311	1	3.0	3.7	+ 0.7	
Indicator-Airspeed, Indica- ted (Standby) AVU-2/A, WCLC1-1-51	60-6303	1	1.3	1.0	- 0.3	
Indicator-Airspeed, Mach Safe Speed, AVU-1/A, WCLC1-1-43A	60-6321	1	5.0	10.3	+ 5.3	
Indicator-Altitude, Vertical Speed, AAU-1/A,	60-6307	1	9.0	10.0	+ 1.0	
Amplifier-Altitude, Vertical Speed	60-6322	1	4.0	7.7	+ 3.7	
Indicator-Attitude Director, ARU-2/A, WCLC1-1-40A, w/clamp on amplifier	60-6310	1	7.0	7.9	+ 0.9	
Indicator-Frequency Channel, ID-572/ARC	81-3382	1	1.0	1.0		

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GOVERNMENT FURNISHED AIRCRAFT EQUIPMENT WEIGHT VARIATION

	AERNO NO.	NO. REQD.	005C SPEC. WEIGHT	CURRENT WEIGHT	OVER OR UNDER WEIGHT	CHANGE AUTHORITY
<u>WEIGHT EMPTY (Cont'd.)</u>						
<u>INSTRUMENTS (Cont'd.)</u>						
Indicator - Fuel, Rate of Flow, EFU-1/A, MIL-1-25860	61-1230	1	1.0	0.5	- 0.5	
Transmitter - Fuel, Rate of Flow, Synchro, MA-1, MIL-T-8275A	61-2456	1	7.5	7.5		
Indicator-Horizontal Situa- tion, AF/A24J-1, WCLC1-1- 45B	60-6309	1	6.5	7.9	+ 1.4	
Amplifier-Horizontal Situa- tion	60-6315	1	3.5	3.8	+ 0.3	
Indicator-Pressure, Hydrau- lic, AGU-1/U, MIL-1-25861	61-1210	2	0.8	0.4	- 0.4	
Indicator - Oil Pressure, EGU-1/A, MIL-1-25950	61-1280	1	0.4	0.2	- 0.2	
Transmitter-Engine Oil Pressure, MH-5, MIL-T- 25624	61-2479	1	1.0	1.4	+ 0.4	
Indicator-Tachometer, Electric, ERU 5/A, MIL-1- 25863	61-1200	1	1.0	0.8	- 0.2	
Indicator-Temperature, Thermocouple, 0-1000°, EHU-4/A MIL-1-25852	61-1250	1	1.0	0.8	- 0.2	
Indicator-Thrust (Pressure Ratio) AEU-2/A, MIL-1- 25859	61-1270	1	1.5	1.6	+ 0.1	
Transmitter-Thrust (Pressure Ratio) MK-2, MIL-T-25485	61-2484	1	5.7	5.5	- 0.2	
Transmitter-Accelerometer, Linear, TRU-3/A, WCLC1-1- 41, Amend. #2	60-6300	1	2.5	1.4	- 1.1	
Transmitter-Synchro, Angle of Attack, MS-24378-1	60-1603	1	2.5	2.0	- 0.5	
Tube-Pitot Static, 115 Volt AN-5816-3	60-9201	1	1.0	0.8	- 0.2	

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GOVERNMENT FURNISHED AIRCRAFT EQUIPMENT WEIGHT VARIATION
 (Cont'd.)

	AERNO NO.	NO. REQD.	005C SPEC. WEIGHT	CURRENT WEIGHT	OVER OR UNDER WEIGHT	CHANGE AUTHORITY
<u>WEIGHT EMPTY (Cont'd.)</u>						
<u>ARMAMENT - ORDNANCE</u>						
Extractor-Type M-1A	93-0317	1	0.1	0.1		
Initiator-Type M-12, with Cartridge (M-71) Lap Belt Release	93-0728	1	1.0	1.2	+ 0.2	
Initiators-With Cartridge Type M-3	93-0316	4	3.2	3.2		
Initiators-With Cartridge Type M-5A2	93-0318	3	2.4	2.4		
Thruster-With Cartridge Type M-3A1	93-0742	1	1.0	1.0		
Canopy Actuator (Electric) and Remover (Ballistic) Type T-18	93-0357	1	18.1	22.5	+ 4.4	
<u>FURNISHINGS & EQUIPMENT</u>						
Belt-Aircraft Safety, Lap, Automatic Opening, Type MA-6	45-1722	1	4.0	4.2	+ 0.2	
Harness-Shoulder, Aircraft Safety, Type MB-3	45-2443 or 45-2442 or 45-2447	1	1.1	1.1		ECP 4325
<u>PNEUMATIC AND HYDRAULIC</u>						
Gage, Pressure, Direct Indicating, Pneumatic, 0-4000 lb. per Type MS- 24478-2 MIL-G-25867	61-2341	3	0.6	0.6		ECP 4251
<u>ELECTRONICS</u>						
Interceptor System, Air- craft and Weapon Con- trol, Type MA-1 (Hughes Aircraft Co.)	54-4382	1	2236.8	2247.0	+ 10.2	
Receiver-Radio	81-8160	1	3.0		- 3.0	ECP 4031R3

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GOVERNMENT FURNISHED AIRCRAFT EQUIPMENT WEIGHT VARIATION
 (Cont'd.)

	AERNO NO.	NO. REQD.	005C SPEC. WEIGHT	CURRENT WEIGHT	OVER OR UNDER WEIGHT	CHANGE AUTHORITY
<u>WEIGHT EMPTY</u>						
<u>ELECTRICAL</u>						
Generator - AC 120/208 Volt. 3 Phase, 22 KVA Oil Cooled	42-6101	1	48.0	49.6	+ 1.6	
Exciter-Regulator, AC 115/200 Volt	42-6102	1	20.0	21.0	+ 1.0	
Panel-Control, AC	42-6103	1	8.5	5.3	- 3.2	
Generator-DC, 30 Volt Oil Cooled, 100 Amp,	42-6110	1	37.5	37.5		ECP 4213
Panel-Control, DC with Regu- lator	42-6111	1	6.8	6.0	- 0.8	
TOTAL - WEIGHT EMPTY			9064.3	8979.6	- 84.7	

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GOVERNMENT FURNISHED AIRCRAFT EQUIPMENT WEIGHT VARIATION
 (Cont'd.)

	NO. REQD.	005C SPEC. WEIGHT	CURRENT WEIGHT	OVER OR UNDER WEIGHT	CHANGE AUTHORITY
<u>DESIGN USEFUL LOAD</u>					
<u>ARMAMENT</u>					
Missiles-Air to Air, Hughes, GAR-3 and/or GAR-4	4	540.0	550.0	+ 10.0	
Rocket-Aircraft MB-1	1	815.0	828.0	+ 13.0	
Cartridge, Ballistic Rocket Ejector (ARD 446-1)	5	1.0	1.0		
<u>MISCELLANEOUS</u>					
Personnel Parachute-Back Type (Size 16 x 25 x 5 inches)	1	25.0	25.0		
Contents - Survival Kit - Seat Type	1	28.0	28.0		ECP 4278
TOTAL - DESIGN USEFUL LOAD		1409.0	1432.0	23.0	
<u>SPECIAL LOAD</u>					
<u>MISCELLANEOUS</u>					
Anti-Icing Fluid - Radome	2 Gal.	19.0	19.0		
TOTAL SPECIAL LOAD		19.0	19.0		

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CONTRACTOR RESPONSIBILITY UNDERWEIGHT

	WEIGHT
Contractor Weight Empty Guarantee (ZD-8-005C Specification)	23646.0
Total Authorized Changes, page 94	+ 15.1
G.F.A.E. Weight Variations, page 98	- 84.7
CURRENT CONTRACTUAL WEIGHT EMPTY GUARANTEE	23576.4
Actual Weight Empty, page 48	23448.0
CONTRACTOR UNDERWEIGHT	128.4

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CHART A - BASIC WEIGHT CHECK LIST

CHART A - BASIC WEIGHT CHECK LIST						DELIVERY DATE	FOR USE IN T.O. 1-18-40 & AN 01-18-40												
							RECORD OF CHECKING (Enter date)												
PAGE 2 OF 22 PAGES		AIRPLANE MODEL F-106A		SERIAL NUMBER			CHECK												
COMPARTMENT AND ITEM NUMBER	ITEMS AND LOCATION (Grouped by Compartment)				WEIGHT	ARM	MOMENT 1/ 1000	DELIVERY EQUIPMENT											
									1	2	3	4	5	6	7	8			
								IN AIRPLANE	CHART C ENTRY	IN AIRPLANE	CHART C ENTRY	IN AIRPLANE	CHART C ENTRY	IN AIRPLANE	CHART C ENTRY	IN AIRPLANE	CHART C ENTRY		
COMPARTMENT "B" FWD. ELECTRONICS																			
STA. 41 - 102 (Cont'd.)																			
B-10	Generator-Pulse - Clock	R.H.	464489	7	66	0.5	X												
B-11	Regulator - Voltage 15V DC	L.H.	(or Item B-17)	3	66	0.2	O												
B-12	Amplifier AN1243/APX		464108	5	66	0.3	X												
B-13	Synchronizer	L.H.	464303	5	66	0.3	X												
B-14	Amplifier APX-26	L.H.	464567	7	66	0.5	X												
B-15	Amplifier - Xstr. Tuning	L.H.	464866	14	66	0.9	X												
B-16	Pwr. Supply-Transistor Plus 50V DC	L.H.	(or Item B-17)	8	72	0.6	O												
B-17	Pwr. Supply-Transistor D.C.	L.H.	(or Item B-11; B-16 and B-46)	10	72	0.7	X												
B-18	Power Supply Minus 250V DC	L.H.	464192	21	72	1.5	X												
B-19	Filter DC Pwr. Minus 140V	L.H.	464791	5	72	0.4	X												
B-20	Amplifier-Torque - Rate Gyro	L.H.	464041	10	72	0.7	X												
B-21	Test Set #2	L.H.	464196	3	72	0.2	X												
B-22	Converter - DC Analog	R.H.	464123	14	74	1.0	X												
B-23	Control - Input - Output	R.H.	464255	23	74	1.7	X												
B-24	Tester - Digital Computer	R.H.	464296	13	74	1.0	X												
B-25	Converter - Signal Data	R.H.	464323	10	74	0.7	X												
B-26	Converter - ACC	L.H.	464020	7	78	0.5	X												
B-27	Switch Box - Test	L.H.	464063	3	78	0.2	X												
B-28	Comparator-Signal-AMFI	L.H.	464150	7	78	0.5	X												
B-29	Amplifier - Antenna - Servo	L.H.	464206	8	78	0.6	X												

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1/ Enter constant used below line.

CHART A - BASIC WEIGHT CHECK LIST

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AIRPLANE MODEL

F-106A

SERIAL NUMBER

FOR USE IN T.O. 1-18-40 & AN 01-18-40

RECORD OF CHECKING (Enter date)

COMPARTMENT AND ITEM NUMBER	ITEMS AND LOCATION (Grouped by Compartment)	WEIGHT	ARM	MOMENT 1000	DELIVERY DATE	CHECK														
						DELIVERY EQUIPMENT		CHECK												
						IN AIRPLANE	CHART C ENTRY	1	2	3	4	5	6	7	8					
COMPARTMENT "B" FWD. ELECTRONICS																				
STA. 41 - 102 (Cont'd.)																				
B-30	Amplifier - Antenna -Control L.H.	464241	11	78	0.9	X														
B-31	Computer - Steer Signal L.H.	464346	7	78	0.5	X														
B-32	Amplifier - AMTI L.H.	464495	4	78	0.3	X														
B-33	Rack - R.H.	464273	84	80	6.7	X														
B-34	Rack - L.H.	464073	77	81	6.2	X														
B-35	Comparator - Analog Digital R.H.	464050	9	84	0.8	X														
B-36	Relay - Digital Output R.H.	464064	15	84	1.3	X														
B-37	Computer - Digital Arithmetic R.H.	464146	26	84	2.2	X														
B-38	Memory - Shift Register R.H.	464157	12	84	1.0	X														
B-39	Filter - 1600 Cycle L.H.	464425	13	85	1.1	X														
B-40	Gate - Clutter L.H.	464082	7	85	0.6	X														
B-41	Amplifier - Video Track L.H.	464095	6	85	0.5	X														
B-42	Meter - Self Test Radar L.H.	464096	3	85	0.3	X														
B-43	Amplifier - Azimuth Driver L.H.	464106	10	85	0.9	X														
B-44	Amplifier - Intermediate Freq. L.H.	464295	5	85	0.4	X														
B-45	Amplifier - Elev. Driver L.H.	464506	9	85	0.8	X														
B-46	Power Supply - Minus 50V DC L.H.	464226	8	91	0.7	0														
	(or Item B-17)																			
B-47	Synchro. - Master Timer L.H.	464003	6	91	0.5	X														
B-48	Oscillator - RF L.H.	464093	3	91	0.3	X														
B-49	Synchro. Range Track L.H.	464103	7	91	0.6	X														
B-50	Amplifier - Antenna Track L.H.	464141	10	91	0.9	X														
B-51	Generator - Sweep Ind. L.H.	464389	6	91	0.5	X														

CHART DATE - SEE SHEET 2
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1/ Enter constant used below line.

CHART A - BASIC WEIGHT CHECK LIST

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AIRPLANE MODEL

F-106A

SERIAL NUMBER

FOR USE IN T.O. 1-18-60 & AN 01-18-60

RECORD OF CHECKING (Enter date)

COMPARTMENT AND ITEM NUMBER	ITEMS AND LOCATION (Grouped by Compartment)	WEIGHT	ARM	MOMENT 1/ 1000	DELIVERY DATE	CHECK													
						DELIVERY EQUIPMENT													
						1 IN AIRPLANE	2 CHART C ENTRY	3 IN AIRPLANE	4 CHART C ENTRY	5 IN AIRPLANE	6 CHART C ENTRY	7 IN AIRPLANE	8 CHART C ENTRY						
<u>COMPARTMENT "B" FWD. ELECTRONICS</u>																			
<u>STA. 41 - 102 (Cont'd.)</u>																			
B-52	Converter - Signal Time L.H.	464523	8	91	0.7	X													
B-53	Memory - Magnetic Drum	464057	33	95	3.1	X													
B-54	Computer - Digital R.H.	464446	21	95	2.0	X													
B-55	Amplifier - Memory Read R.H.	464457	18	95	1.7	X													
B-56	Memory Read Gates R.H.	464657	10	95	1.0	X													
B-57	Regulator Plus 100V/Minus 140V L.H.	464292	4	97	0.4	X													
B-58	Filter - Direct Current L.H.	464591	7	97	0.7	X													
B-59	Filter - Plus 150V DC L.H.	464991	5	97	0.5	X													
B-60	Amplifier - Sweep Gen. - Ind. L.H.	464195	7	97	0.7	X													
B-61	Converter - Attack Display L.H.	464223	8	97	0.8	X													
B-62	Amplifier - Attack Display L.H.	464395	7	97	0.7	X													
B-63	Amplifier - Steer. Signal	464341	8	97	0.8	X													

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CHART DATE - SEE SHEET 1

1/ Enter constant used below line.

CHART A - BASIC WEIGHT CHECK LIST

FOR USE IN T O 1-1B-40 & AN 01-1B-40

RECORD OF CHECKING (Enter date)

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AIRPLANE MODEL

F-106A

SERIAL NUMBER

DELIVERY DATE

COMPARTMENT AND ITEM NUMBER	ITEMS AND LOCATION (Grouped by Compartment)	WEIGHT	ARM	I/ MOMENT 1000	DELIVERY EQUIPMENT	CHECK														
						1	2	3	4	5	6	7	8							
						IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY							
	*ARDC EQUIPMENT OR LOCATION CHANGE DUE TO ARDC INSTL. COMPARIMENT "C" COCKPIT SEA. 102 - 217																			
C-1	Transformer - Windshield Anti-Ice	6	109	0.7	X															
C-2	Indicator - Search and Attack 464080	18	116	2.1	X															
C-3	Control Box - Windshield Anti-Ice (or Item C-32)	7	117	0.8	O															
C-4	Amplifier - Vert. Sit. Ind. 464306	10	119	1.2	O															
C-5	Rack Elect. Equip.-Horiz. Sit. Ind. 464102	4	120	0.5	X															
C-6	Amplifier-Mach-Airspeed 60-6321*	10	120	1.2	O															
C-7	Amplifier - Vert. Speed 60-6322*	8	120	1.0	X															
C-8	Indicator - Horizontal Sit. 464180	82	121	9.9	O															
C-9	Ind.-Horiz. Situation AF/A24J-1 or 60-6308*	8	125	1.0	X															
C-10	Course Ind. (or Item C-12) ID-387	3	128	0.4	O															
C-11	Indicator - Directional (or Item C-13) 60-1482	2	128	0.3	O															
C-12	Indicator - Course (or Item C-10) 60-1901	4	128	0.5	O															
C-13	Indicator - Horiz. Approach (or Item C-11) 60-1900	2	128	0.3	O															
C-14	Control - Flight Mode 464163	3	128	0.4	X															
C-15	Sight - Control - Non-Computing 464169	5	128	0.6	O															
C-16	Control - Radar 464305	2	128	0.3	X															
C-17	Indicator - Mach No. 464880	2	128	0.3	O															
C-18	Indicator - Command Alt. 464980	2	128	0.3	O															
C-19	Indicator - Airspeed and Angle of Attack	4	128	0.5	O															
C-20	Altimeter MD-1	2	128	0.3	O															
C-21	Attitude Gyro MM-3	4	128	0.5	O															
C-22	Fuel Quantity Ind. and Switch	2	128	0.3	X															
C-23	Indicator - Mach AVU#1/A or 60-6306*	10	128	1.3	X															

1/ Enter constant used below line.

CHART DATA - SEE SHEET 1
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CHART A - BASIC WEIGHT CHECK LIST

FOR USE IN T O 1-1B-40 & AN 01-1B-40

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AIRPLANE MODEL

F-106A

SERIAL NUMBER

COMPARTMENT AND ITEM NUMBER	ITEMS AND LOCATION (Grouped by Compartment)	WEIGHT	ARM	1/ MOMENT 1000	DELIVERY DATE	CHECK												
						DELIVERY EQUIPMENT												
						1	2	3	4	5	6	7	8					
						IN AIRPLANE	CHART C ENTRY	IN AIRPLANE	CHART C ENTRY	IN AIRPLANE	CHART C ENTRY	IN AIRPLANE	CHART C ENTRY	IN AIRPLANE	CHART C ENTRY	IN AIRPLANE	CHART C ENTRY	
	*ARDC EQUIPMENT OR LOCATION CHANGE DUE TO ARDC INSTL.																	
	COMPARTMENT "C" COCKPIT																	
	STA. 102 - 217 (Cont'd.)																	
C-24	Ind.-Attitude Director ARU-2/A or 60-6310*	8	128	1.0		X												
C-25	Ind.-Vertical Speed AAU-1A or 60-6307*	10	128	1.3		X												
C-26	Indicator - Altitude 60-6301*	2	128	0.3		X												
C-27	Ind.-Press. Ratio ARU-2/A or 61-1270*	2	128	0.3		X												
C-28	Control Box - Windshield Anti-Ice	7	130	0.9		X												
C-29	Light Shield - Radar Scope	3	130	0.4		X												
C-30	Control, Radar Set - AZ Scan & Horizon Adjust 464855	2	134	0.3		X												
C-31	Control - Tacan 464405	3	137	0.4		X												
C-32	Control Box - Windshield Anti-Ice (or Item C-3)	7	137	1.0		X												
C-33	Stick Grip - Yoke 464083	4	138	0.6		X												
C-34	Stick Grip - Single Hand	3	138	0.4		O												
C-35	Radar Control - Azimuth 464855	2	144	0.3														
C-36	Control - CCI 464605	3	144	0.4		X												
C-37	Switch - Armament Selector	2	145	0.3		X												
C-38	Ind.-Ilg. Qty. Quant.-Dual 8-09633	2	145	0.3		X												
C-39	Control - Subcarrier 464355	3	148	0.4		X												
C-40	Control - Communication 464505	6	148	0.9		X												
C-41	Amplifier - Horiz. Sit. Ind. 60-6315*	4	150	0.6		X												
C-42	Control Box - Cabin Temp. (or Item C-45)	4	152	0.6		X												
C-43	Receiver - Broflcon	3	158	0.5		O												
C-44	Control, Power System 464905	3	159	0.5		X												
C-45	Control Box - Cabin Temp. (or Item C-42)	4	161	0.6		X												

1/ Enter constant used below line.

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CHART DATE - SEE SHEET 2

CHART A - BASIC WEIGHT CHECK LIST

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AIRPLANE MODEL

F-106A

SERIAL NUMBER

DELIVERY DATE

COMPARTMENT AND ITEM NUMBER	ITEMS AND LOCATION (Grouped by Compartment)	WEIGHT	ARM	MOMENT 1000	DELIVERY EQUIPMENT	CHECK														
						1	2	3	4	5	6	7	8							
						IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY							
	*ARDC EQUIPMENT OR LOCATION CHANGE DUE TO ARDC INSTL.																			
	<u>COMPARTMENT "D" NOSE WHEEL WELL</u>																			
	<u>STA. 102 - 163</u>																			
D-1	Transformer-Rectifier-Elec. Canopy Actuator	8	107	0.9	X															
D-2	Battery - Electric Canopy Actuator	6	107	0.6	X															
D-3	Switch - Pressure Ratio	4	110	0.4	O															
D-4	Panel, Self Test Aircraft and Weapon Control System																			
	R.H. 464004	5	110	0.6	O															
D-5	Rack-Air Data Converter L.H. 464673	2	118	0.2	X															
D-6	Converter - Air Data (or Item D-7) L.H. 464823	35	118	4.1	O															
D-7	Converter - Air Data (or Item D-6) 464420*	36	118	4.2	X															
D-8	Battery and T.R. Unit (See Below)																			
	Battery	16	118	1.9	X															
	Transformer-Rectifier	15	124	1.9	X															
D-9	Rack-Air Data Computer R.H. 464773	5	121	0.6	X															
D-10	Computer - Air Data R.H. 464646	26	121	3.1	X															
D-11	Splash Curtains	4	133	0.5	X															
D-12	Attitude Rate 464320*	5	135	0.7	X															
D-13	Amplifier - NLG Steer Control	3	138	0.4	X															
D-14	Amplifier - Trim Servo	4	138	0.6	O															
D-15	Compensator - Air Data (or Item D-16) LH 464921	8	140	1.1	O															
D-16	Compensator Air Data (or Item D-15) 464721*	10	140	1.4	X															
D-17	Transmitter - Pressure Ratio MK-2	6	158	0.9	X															
D-18	Oxygen - 5 Liters Liquid	13	162	2.1	X															

1/ Enter constant used below line.

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CHART DATE - SEP 1959

CHART A - BASIC WEIGHT CHECK LIST

FOR USE IN T O 1-18-40 & AN 01-18-40

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AIRPLANE MODEL

F-106A

SERIAL NUMBER

DELIVERY DATE

COMPARTMENT AND ITEM NUMBER	ITEMS AND LOCATION (Grouped by Compartment)	WEIGHT	ARM	MOMENT 1/ 1000	DELIVERY EQUIPMENT	CHECK														
						1	2	3	4	5	6	7	8							
						IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY							
	<u>COMPARTMENT "D" NOSE WHEEL WELL</u> <u>STA. 162 - 163 (Cont'd.)</u>																			
D-19	Converter - Liquid Oxygen: 8-09277-1 (21090) or (29007-0) or (29007-1A1) (or Item D-20 or D-21)	12	162	1.9	0															
D-20	Converter - Liq. Oxy. 92-67001-001 (10800-3) (or Item D-19 or D-21)	14	162	2.3	X															
D-21	Converter-Liquid Oxy. (or Item D-19 or D-20)	18	162	2.9	0															

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CHART A - BASIC WEIGHT CHECK LIST

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AIRPLANE MODEL

F-106A

SERIAL NUMBER

FOR USE IN T O 1-18-40 & AN 01-18-40

RECORD OF CHECKING (Enter date)

DELIVERY DATE

COMPARTMENT AND ITEM NUMBER	ITEMS AND LOCATION (Grouped by Compartment)			WEIGHT	ARM	MOMENT 1/ 1000	DELIVERY EQUIPMENT	CHECK								
								1	2	3	4	5	6	7	8	
								IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	
COMPARTMENT "E" UPPER AFT ELECTRONICS																
SEA. 170 - 217																
E-1	Regulator - Voltage	L.H.	46491	11	179	2.0	X									
E-2	Regulator - Voltage DC	R.H.	46492	10	179	1.8	X									
E-3	Regulator - 400/1600 CPS	L.H.	46492	22	179	3.9	X									
E-4	Interconnect Box #2	R.H.	46418	6	179	1.1	X									
E-5	Pitch and Yaw Transducer			3	180	0.5	O									
E-6	Power Control Unit - Gyro	R.H.	464008	12	185	2.2	X									
E-7	Receiver-Glideslope & Marker Beacon	L.H.	464267	10	185	1.9	X									
E-8	Receiver - Localizer	L.H.	464367	9	185	1.7	X									
E-9	Bearing Transmitter - Tacan	L.H.	464429	15	185	2.8	X									
E-10	Interconnect Box #1	R.H.	464018	7	185	1.3	X									
E-11	Relay +/- Voltage	R.H.	464062	5	185	0.9	X									
E-12	Filter - DC Voltage	R.H.	464092	5	185	0.9	X									
E-13	Filter - DC Voltage	R.H.	464891	4	191	0.8	X									
E-14	Power Supply #1	R.H.	464087	8	191	1.5	X									
E-15	Test Set Relay	R.H.	464496	5	191	1.0	X									
E-16	Receiver - Data Link	L.H.	464067	26	191	5.0	X									
E-17	Range Transmitter - Tacan	L.H.	464329	13	191	2.5	X									
E-18	Rack - L.H.		464074	40	194	7.8	X									
E-19	Rack - R.H.		464174	51	194	9.9	X									
E-20	Relay - Armament Control	R.H.	464264	8	197	1.6	X									
E-21	Relay - Mode Select	R.H.	464464	6	197	1.2	X									
E-22	Tuner - Band - UHF	L.H.	464225	10	197	2.0	X									
E-23	Modulator - Tacan Recorder	L.H.	464229	16	197	3.2	X									

1/ Enter constant used below line.

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CHART A - BASIC WEIGHT CHECK LIST

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F-106A

SERIAL NUMBER

FOR USE IN T O 1-1B-40 & AN 01-1B-40

RECORD OF CHECKING (Enter date)

COMPARTMENT AND ITEM NUMBER	ITEMS AND LOCATION (Grouped by Compartment)	WEIGHT	ARM	1/ MOMENT 1000	DELIVERY DATE	CHECK									
						1	2	3	4	5	6	7	8		
						IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY		
COMPARTMENT "E" UPPER AFT ELECTRONICS															
STA. 170 - 217 (Cont'd.)															
E-24	Amplifier - ADF L.H. 464606	9	197	1.8	X										
E-25	Int'r. - UHF L.H. 464059	23	203	4.7	X										
E-26	Transceiver - Tacan L.H. 464129	25	203	5.1	X										
E-27	Channel Selector - AFC R.H. 464043	8	204	1.6	X										
E-28	Amplifier - Missile Antenna R.H. 464266	9	204	1.8	X										
E-29	Relay - Parameter Setting R.H. 464364	11	204	2.2	X										
E-30	Regulator - DC Voltage R.H. 464692	13	209	2.7	X										
E-31	Amplifier - Missile Antenna Test R.H. 464366	5	209	1.0	X										
E-32	Receiver - UHF L.H. 464167	26	210	5.5	X										
E-33	Power Supply - Communications L.H. 464392	12	210	2.5	X										

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F-106A

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RECORD OF CHECKING (Enter date)

COMPARTMENT AND ITEM NUMBER	ITEMS AND LOCATION (Grouped by Compartment)	WEIGHT	ARM	MOMENT 1/ 1000	DELIVERY DATE	CHECK														
						1	2	3	4	5	6	7	8							
						IN AIRPLANE	CHART C ENTRY	IN AIRPLANE	CHART C ENTRY	IN AIRPLANE	CHART C ENTRY	IN AIRPLANE	CHART C ENTRY	IN AIRPLANE	CHART C ENTRY					
*ARDC EQUIPMENT OR LOCATION CHANGE DUE TO ARDC INSTL. COMPARTMENT "F" LOWER AFT ELECTRONICS STA. 163 - 217																				
F-1	Dehydrator (or Item F-51)	463097	4	169	0.7	0														
F-2	Compressor - Air (or Item F-14)	464045	8	171	1.4	0														
F-3	Rack - Stable Element	464474	6	175	1.1	X														
F-4	Stable Element	464289	96	175	9.8	X														
F-5	Switch - RF Transmission	464263	6	176	1.1	X														
F-6	Gyro - Vertical MD-1		7	177	1.2	0														
F-7	Gyro Control - Roll		7	177	1.2	0														
F-8	Valve - Air Regulat. Press.	464107	3	177	0.5	X														
F-9	Gyro Displacement	60-6316*	22	177	3.9	X														
F-10	Adaptor - Compass	60-6319*	10	178	1.8	X														
F-11	Amplifier - Power Supply	60-6317*	9	178	1.6	X														
F-12	Servo Amplifier J-4 Compass 60-1488 (or Item F-37)		11	178	2.0	0														
F-13	Control Unit - Vari-Ramp (or Item F-34)		6	178	1.1	X														
F-14	Compressor - Air (or Item F-2)	464045	8	178	1.4	X														
F-15	Steering Computer	562A-3B	14	178	2.5	0														
F-16	Mount - Steering Computer	MT-35M-41	3	178	0.5	0														
F-17	Coder - APX-19	464028	13	184	2.4	X														
F-18	Rack - Coder - APX-19	464502	2	184	0.4	X														
F-19	Gyro Rate Switch MC-1		2	186	0.4	0														
F-20	Gyro - Vertical	K-4B	13	186	2.4	0														
F-21	Demodulator - Channel L.H.	464209	4	187	0.7	X														
F-22	"J" Box and Lat. Counter L.H.	464409	8	187	1.5	X														

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CHART A - BASIC WEIGHT CHECK LIST

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AIRPLANE MODEL

F-106A

SERIAL NUMBER

COMPARTMENT AND ITEM NUMBER	ITEMS AND LOCATION (Grouped by Compartment)	WEIGHT	ARM	MOMENT 1/ 1000	DELIVERY DATE	CHECK															
						DELIVERY EQUIPMENT															
						1	2	3	4	5	6	7	8								
*ARDC EQUIPMENT OR LOCATION CHANGE DUE TO ARDC INSTL.																					
<u>COMPARTMENT "F" LOWER AFT ELECTRONICS</u>																					
<u>STA. 163 - 217 (Cont'd.)</u>																					
F-23	Gyro - Roll and Pitch Rate (or Item F-5B)	464127	4	190	0.8	X															
F-24	Converter - Signal Data	464720	7	190	1.3	O															
F-25	Relay - Power Transfer (or Item J-8) L.H.	464162	25	191	4.8	O															
F-26	Antenna - Data Link		13	192	2.5	X															
F-27	Amplifier - Azimuth L.H.	464309	13	193	2.5	X															
F-28	Rack - Stable Platform L.H.	464374	18	196	3.5	X															
F-29	Recorder-Search & Attack	464149 & Rack 464702	25	196	4.9	X															
F-30	Pitch and Yaw Amplifier (or Item J-9)		20	197	3.9	O															
F-31	Amplifier - Nav. and Approach R.H.	464221	14	198	2.8	O															
F-32	Amplifier - Steer Converter R.H.	464421	12	198	2.4	O															
F-33	Amplifier - Integrator L.H.	464009	15	199	3.0	X															
F-34	Control Unit - Vari-Ramp (or Item F-13)		6	199	1.2	O															
F-35	Rack - Elec. Equip. - Cockpit Display	464602*	3	200	0.6	X															
F-36	Transceiver - APX/19 L.H.	464265	29	201	5.8	X															
F-37	Servo Amplifier-J-4 Compass (or Item F-22)	60-1488	11	201	2.2	O															
F-38	Amplifier-Attitude Memory R.H.	464321	12	202	2.4	X															
F-39	Rack-AFCS	464873	19	202	3.8	X															
F-40	Amplifier-Control Surface R.H.	464121	12	202	2.4	X															
F-41	Computer-Flight Director	60-6309*	10	203	2.0	X															
F-42	Converter-Signal Data	464520*	19	205	3.9	X															
F-43	Converter - Signal Data	464620*	19	205	3.9	X															
F-44	Amplifier - Aero. R.H.	464021	6	206	1.2	X															
F-45	Amplifier - Roll and Pitch L.H.	464109	8	206	1.6	X															

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AIRPLANE MODEL

F-106A

SERIAL NUMBER

DELIVERY DATE

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						1	2	3	4	5	6	7	8							
						IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY							
*ARDC EQUIPMENT OR LOCATION CHANGE DUE TO ARDC INSTL.																				
COMPARTMENT "F" LOWER AFT ELECTRONICS STA. 163 - 217 (Cont'd.)																				
F-46	Test - Stable Element L.H.	464396	8	206	1.6	X														
F-47	Amplifier - Auto Attack R.H.	464621	12	206	2.5	0														
F-48	Dehydrator	463097	4	212	0.8	X														
F-49	Gyro-J-4 Compass L.H.	60-1485	8	212	1.7	0														
F-50	Rate Switch - J-4 Compass		2	212	0.4	0														
F-51	Dehydrator (or Item F-1)	463097	4	212	0.8	X														
F-52	Transmitter - Rate Turn Gyro	60-6311*	4	212	0.8	X														
F-53	Gyro - Roll & Pitch Rate (or Item F-23)	464127	4	212	0.8	0														
F-54	Mach Transmitter		4	213	0.9	0														
F-55	Transformer - Power - Flight		2	214	0.4	0														

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F-106A

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DELIVERY DATE

COMPARTMENT AND ITEM NUMBER

ITEMS AND LOCATION
(Grouped by Compartment)

WEIGHT

ARM

1/

MOMENT
1000

DELIVERY EQUIPMENT

CHECK

1	2	3	4	5	6	7	8
IN AIRPLANE	IN AIRPLANE	IN AIRPLANE	IN AIRPLANE	IN AIRPLANE	IN AIRPLANE	IN AIRPLANE	IN AIRPLANE
CHART C ENTRY	CHART C ENTRY	CHART C ENTRY	CHART C ENTRY	CHART C ENTRY	CHART C ENTRY	CHART C ENTRY	CHART C ENTRY

COMPARTMENT "G" FUSELAGE FUEL TANK
STA. 217 - 253

COMPARTMENT "H" FWD. ARMAMENT BAY
STA. 217 - 316

H-1	Missile Displacing Gear (Retracted)	104	(254.8)	26.5	X
H-2	Relay Control Box - Armament Doors	4	260	1.0	X
H-3	Missile Launchers (2) 464054	42	268	11.3	X
H-4	Displacing Cylinder - Armament Gear	30	279	8.4	X

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Previous editions of this form may be used until stocks are exhausted.

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AIRPLANE MODEL

F-106A

SERIAL NUMBER

DELIVERY DATE

COMPARTMENT AND ITEM NUMBER	ITEMS AND LOCATION (Grouped by Compartment)	WEIGHT	ARM	MOMENT 1/ 1000	DELIVERY EQUIPMENT	CHECK														
						1	2	3	4	5	6	7	8							
						IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY							
*ARDC EQUIPMENT OR LOCATION CHANGES DUE TO ARDC INSTL. COMPARTMENT "J" AIR CONDITIONING AND DUCT AREA STA. 253 - 472																				
J-1	Intervalometer - Missile	6	259	1.6	X															
J-2	Refrigeration Unit 8-02459	84	295	24.8	X															
J-3	Radome Anti-Icing Tank and Filter	2	304	0.6	X															
J-4	Anti-Icing Fluid - 2 Gals.	19	304	5.8	X															
J-5	Air Bottle - Vari-Ramp Emergency	4	320	1.3	X															
J-6	Air Bottle - Hi Press. Pneu. System (2)	94	343	32.2	X															
J-7	Air - Hi. Press. 5100 Cu. In.	43	343	14.7	X															
J-8	Relay-Power Transfer (or Item F-25) 464162 *	25	395	9.9	X															
J-9	Pitch and Yaw Amplifier (or Item F-30)	20	396	7.9	X															
J-10	Oil Cooler	9	467	4.2	X															
J-11	Oil Cooler	10	467	4.7	X															
J-12	Ice Detector and Interpreter	3	469	1.4	X															

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F-106A

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DELIVERY DATE

COMPARTMENT AND ITEM NUMBER	ITEMS AND LOCATION (Grouped by Compartment)	WEIGHT	ARM	MOMENT 1/ 1000	DELIVERY EQUIPMENT	CHECK														
						1	2	3	4	5	6	7	8							
						IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY							
<u>COMPARTMENT "M" MAIN WHEEL WELL</u>																				
<u>STA. 431 - 472</u>																				
M-1	Pitch "G" Limiter	4	431	1.7	X															
M-2	Accelerometer (Or Item L-7)	464061	2	433	0.9	O														
M-3	Accelerometer	464161	3	433	1.3	O														
M-4	Gyro Transmitter		6	439	2.6	X														
M-5	Test Panel	464596	4	440	1.8	X														
M-6	Generator - AC Emergency		18	464	8.4	X														
M-7	Hydraulic Drive Unit		10	464	4.6	X														
M-8	DC Regulator and Control	42-6111	6	465	2.8	X														
M-9	Voltage Regulator	42-6102	21	465	9.8	X														
<u>COMPARTMENT "N" FWD. ENGINE AREA</u>																				
<u>STA. 472 - 593</u>																				
N-1	Loader - Elevator Fuel		11	475	5.2	X														
N-2	Oil - C.S.D. 3.7 Gal. @ 7.7 Lbs. per Gal.		28	480	13.4	X														
N-3	Reactor - 40MH (2)	464035	26	484	12.6	X														
N-4	Reactor - 100MH	464135	11	484	5.3	X														
N-5	Generator - 100 Amp.	42-6110	38	487	18.5	X														
N-6	Alternator - Oil Cooled	42-6101	48	487	23.4	X														
N-7	C.S.D. Remote Gear Box	48-558	105	492	51.7	X														

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						1	2	3	4	5	6	7	8								
						IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY								
<u>COMPARTMENT "N" FWD. ENGINE AREA</u>																					
<u>STA. 472 - 593 (Cont'd.)</u>																					
N-8	Alternator - Oil Cooled	42-6101	48	505	24.2	0															
N-9	Generator - AC/DC	464089	69	505	34.8	X															
N-10	Generator - DC (or Item N-11)	464189	30	505	15.2	0															
N-11	Generator - DC (or Item N-10)	464689	31	505	15.7	X															
N-12	Drive Shaft and Cover - C.S.D.		6	506	3.0	X															
N-13	Starter - Combustion	MA-11	48	510	24.5	X															
N-14	Starter - Pneumatic		24	510	12.2	0															
N-15	Hydraulic Pump (2)		57	516	29.4	X															
N-16	Gear Box - Engine Mounted	48-571	16	520	8.3	X															
N-17	Fuel Flow Equalizer		11	551	6.1	X															
N-18	Engine and Afterburner	J-75-P-17	5816	562	3268.6	X															
N-19	Engine and Afterburner	J-75-P-9	5802	562	3260.7	0															
<u>COMPARTMENT "P" TAIL CONE AREA</u>																					
<u>STA. 653 - 711</u>																					
P-1	Drogue Chute		22	705	15.5	X															

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						1	2	3	4	5	6	7	8		
						IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY		
<u>COMPARTMENT "Q" VERTICAL FIN</u>															
Q-1	Amplifier - Synch. AM-1245A/APX-27	464333	7	588	4.1	X									
Q-2	Rack, Elect. Equip. - Fwd. APX-27	464973	2	588	1.2	X									
Q-3	IFF XP - Tuned Cavity CAV FR-93	464332	3	620	1.9	X									
Q-4	IFF XP - Duplexer - CU-460/APX-27	464232	4	622	2.5	X									
Q-5	IFF XP - SW. Waveguide	464252	3	625	1.9	X									
Q-6	Isolator, Radio Freq. Reflex. APX	464079	2	631	1.3	X									
Q-7	Amplifier - Oscillator Cont. AM-1243 APX 464108		5	633	3.2	X									
Q-8	Amplifier, Freq. Conv. APX-27	464666	6	637	3.8	X									
Q-9	Rack, Elect. Equip. - Aft Compt. - Right 464274		5	637	3.2	X									
Q-10	Transmitter, Radio T-425A/APX-27	464159	9	639	3.8	X									

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COMPARTMENT AND ITEM NUMBER	ITEMS AND LOCATION (Grouped by Compartment)	WEIGHT	ARM	MOMENT 1/ 1000	DELIVERY DATE	CHECK									
						DELIVERY EQUIPMENT									
						1 IN AIRPLANE	2 CHART C ENTRY	3 IN AIRPLANE	4 CHART C ENTRY	5 IN AIRPLANE	6 CHART C ENTRY	7 IN AIRPLANE	8 CHART C ENTRY		
<u>COMPARTMENT "T" - AIRPLANE EXTERIOR</u>															
T-1	Antenna - Broficon	15	65	1.0	0										
T-2	Antenna - Marker Beacon	2	68	0.1	X										
T-3	Antenna - ADF 464117	11	86	0.9	X										
T-4	Antenna - Lwr. Annular Slot - IFF	2	170	0.3	X										
T-5	Beacon Light - Retractable - Upper	4	270	1.1	X										
T-6	Beacon Light - Retractable - Lwr.	4	422	1.7	X										
T-7	Tail Hook:														
T-8	Misc. Wire, Switch, Etc.	2	495	1.0	0										
T-9	Fitting - Hook Attachment	10	520	5.2	0										
T-10	Bulkhead Revision - Sta. 520	4	520	2.1	0										
T-11	Doubler, Bolts, Etc.	2	520	1.0	0										
T-12	Spring, Hook & Shoe Assy.	22	591	30.7	0										
T-13	Fairing-Fwd. of Hook (Est.)	2	622	1.2	0										
T-14	Latch	5	631	3.2	0										
T-15	Fairing - Aft of Hook	3	647	1.9	0										

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1/ Enter constant used below line.

CHART DATE - SEE INDEX 1

CHART A - BASIC WEIGHT CHECK LIST

FOR USE IN T O 1-1B-40 & AN 01-1B-40
RECORD OF CHECKING (Enter date)

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AIRPLANE MODEL
F-106A

SERIAL NUMBER

DELIVERY DATE

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COMPARTMENT AND ITEM NUMBER	(THIS PAGE IS APPLICABLE WHEN INCREASED CAPACITY FUEL SYSTEM IS INCORPORATED) ITEMS AND LOCATION (Grouped by Compartment)	WEIGHT	ARM	1/ MOMENT 1000	DELIVERY EQUIPMENT	CHECK														
						1	2	3	4	5	6	7	8							
						IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY	IN AIRPLANE CHART C ENTRY							
	TRAPPED FUEL & OIL (INCREASED CAPACITY FUEL SYSTEM)																			
1.	Trapped Oil (Oil that remains after draining from tank drains - Normal Ground Attitude)	26	505	13.1	X															
2.	Drainable - Unusable Fuel JP-4	92	(505)	46.5	X															
3.	Undrainable-Unusable Fuel JP-4 (Fuel that remains after draining from eight wing drains, transfer line drains and two Fuselage drains- Normal Ground Attitude) Access to Tank "F" fuselage drain at Sta. 250 and aft fuselage drain thru engine access door approximately Sta. 538.	151	(435)	65.6	X															
	Total Unusable Fuel-JP-4 MIL-F-5624B (1) at Average Cruise Attitude	243	(461)	112.1	X															

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1/ Enter constant used below line.

CHART A - BASIC WEIGHT CHECK LIST

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AIRPLANE MODEL

F-106A

SERIAL NUMBER

FOR USE IN T O 1-1B-40 & AN 01-1B-40

RECORD OF CHECKING (Enter date)

DELIVERY DATE

COMPARTMENT AND ITEM NUMBER

(THIS PAGE IS APPLICABLE PRIOR TO INCORPORATION OF INCREASED FUEL SYSTEM ONLY)
ITEMS AND LOCATION
(Grouped by Compartment)

WEIGHT

ARM

1/

MOMENT
1000

DELIVERY EQUIPMENT

CHECK

1	2	3	4	5	6	7	8
IN AIRPLANE	IN AIRPLANE	IN AIRPLANE	IN AIRPLANE	IN AIRPLANE	IN AIRPLANE	IN AIRPLANE	IN AIRPLANE
CHART C ENTRY	CHART C ENTRY	CHART C ENTRY	CHART C ENTRY	CHART C ENTRY	CHART C ENTRY	CHART C ENTRY	CHART C ENTRY

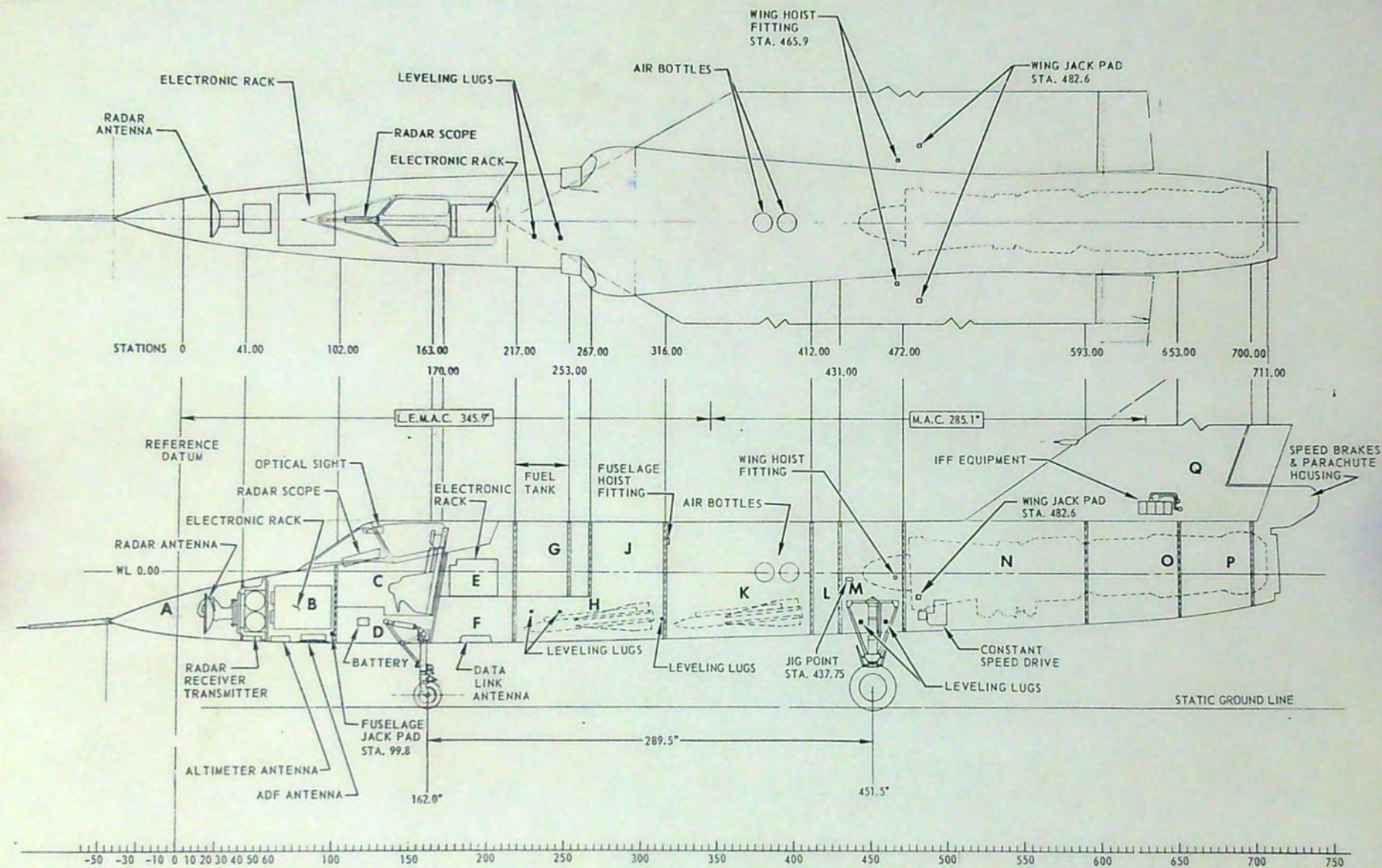
~~TRAPPED FUEL AND OIL (PRIOR TO INCORPORATION OF INCREASED CAPACITY FUEL SYSTEM, MCP 4144 - NO FUEL IN TANK "F".)~~

1.	Trapped Oil (Oil that remains after draining from tank drains - Normal Ground Attitude)	26	505	13.1
2.	Drainable - Unusable Fuel JP-4	159	(445)	70.8
3.	Undrainable-Unusable Fuel JP-4 (Fuel that remains after draining from eight wing drains, transfer line drains and two Fuselage drains - Normal Ground Attitude) Access to Tank "F" fuselage drain at Sta. 250 and aft fuselage drain thru engine access door approximately Sta. 538.	173	(436)	75.4
	Total Unusable Fuel-JP-4 MIL-P-5624B (1) at Average Cruise Attitude	332	(440)	146.2

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A. RADOME COMPARTMENT	41 & FWD	J. AIR-CONDITIONING COMPART.	253 TO 472
B. FWD ELECTRONICS COMPARTMENT	41 TO 102	K. AFT ARMAMENT BAY	316 TO 412
C. COCKPIT	102 TO 217	L. HYDRAULIC COMPARTMENT	412 TO 431
D. NOSE WHEEL WELL	102 TO 163	M. MAIN WHEEL WELL	431 TO 472
E. AFT ELECTRONIC COMPART. UPPER	170 TO 217	N. ENGINE ACCESS COMPARTMENT	472 TO 593
F. AFT ELECTRONIC COMPART. LOWER	163 TO 217	O. AFTERBURNER COMPARTMENT	593 TO 700
G. FUSELAGE FUEL TANK	217 TO 253	P. TAILCONE	653 TO 711
H. FWD ARMAMENT BAY	217 TO 316	Q. VERTICAL FIN	

NOTES:

(1) THE AIRPLANE IS APPROXIMATELY LEVEL WHEN THE STRUTS ARE IN STATIC POSITION (REFER TO STRUT NAMEPLATE FOR STATIC LEVELING INSTRUCTIONS). EXACT LEVEL MAY BE OBTAINED BY COMPRESSING OR EXTENDING THE NOSE STRUT. STRUTS ARE NORMAL TO CENTERLINE OF AIRPLANE, THEREFORE THE STRUT EXTENSION DOES NOT VARY THE HORIZONTAL DISTANCE BETWEEN WHEELS.

- (2) LATERAL LEVELING LUGS LOCATED ON FWD FACE OF BULKHEAD AT STA. 316.0.
- (3) LONGITUDINAL LEVELING LUGS LOCATED LEFT HAND SIDE STA 227 AND 248, OR STA 442 AND 461.
- (4) MEASUREMENTS MAY BE TAKEN TO LOCATE THE REACTIONS DURING WEIGHINGS BY DROPPING A PLUMB BOB FROM JIG POINT FITTING AT STATION 437.75 AND MEASURING TO CENTERLINE OF NOSE AND MAIN LANDING GEAR WHEELS.

CENTER OF GRAVITY TABLE

*C.G. LIMITS SHOWN ARE FOR FLIGHT AND LANDING ONLY
FOR TAKE-OFF C.G. LIMITS SEE SHEET 7 & 8

GROSS WEIGHT (LBS)	C.G. LIMITS* SUBSONIC SPEED TO 30.8% MAC															
	MOMENT /1000															
	23.5% MAC ARM = 412.9	24.0% MAC ARM = 414.3	24.5% MAC ARM = 415.7	25.0% MAC ARM = 417.2	25.5% MAC ARM = 418.6	26.0% MAC ARM = 420.0	26.5% MAC ARM = 421.5	27.0% MAC ARM = 422.9	27.5% MAC ARM = 424.3	28.0% MAC ARM = 425.7	28.5% MAC ARM = 427.2	29.0% MAC ARM = 428.6	29.5% MAC ARM = 430	30.0% MAC ARM = 431.4	30.5% MAC ARM = 432.9	30.8% MAC ARM = 433.7
21000	8671	8700														
100	8712	8742														
200	8753	8783														
300	8795	8825														
400	8836	8866	8896													
21500	8877	8907	8938													
600	8919	8949	8979													
700	8960	8990	9021													
800	9001	9032	9062	9095												
900	9043	9073	9104	9137												
22000	9084	9115	9145	9178												
100	9125	9156	9187	9220												
200	9166	9197	9229	9262												
300	9208	9239	9270	9304	9335											
400	9249	9280	9312	9345	9377											
22500	9290	9322	9353	9387	9419											
600	9332	9363	9395	9429	9460											
700	9373	9405	9436	9470	9502	9534										
800	9414	9446	9478	9512	9544	9576										
900	9455	9487	9520	9554	9586	9618										
23000	9497	9529	9561	9596	9628	9660										
100	9538	9570	9603	9637	9670	9702	9737									
200	9579	9612	9644	9679	9712	9744	9779									
300	9621	9653	9686	9721	9753	9786	9821									
400	9662	9695	9727	9762	9795	9828	9863	9896								
23500	9703	9736	9769	9804	9837	9870	9905	9938								
600	9744	9777	9811	9846	9879	9912	9947	9980								
700	9786	9819	9852	9888	9921	9954	9990	10023								
800	9827	9860	9894	9929	9963	9996	10032	10098	10098							
900	9868	9902	9935	9971	10005	10038	10074	10107	10141							
24000	9910	9943	9977	10013	10046	10080	10116	10150	10183							
100	9951	9985	10018	10055	10088	10122	10158	10192	10226							
200	9992	10026	10060	10096	10130	10164	10200	10234	10268							
300	10033	10067	10102	10138	10172	10206	10242	10276	10310	10345						
400	10075	10109	10143	10180	10214	10248	10285	10319	10353	10387						
24500	10116	10150	10185	10221	10256	10290	10327	10361	10395	10430						
600	10157	10192	10226	10263	10298	10332	10369	10403	10438	10472	10509					
700	10199	10233	10268	10305	10339	10374	10411	10446	10480	10515	10552					
800	10240	10275	10309	10347	10381	10416	10453	10488	10523	10557	10595					
900	10281	10316	10351	10388	10423	10458	10495	10530	10565	10600	10637					

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CENTER OF GRAVITY TABLE
 *C.G. LIMITS SHOWN ARE FOR FLIGHT AND LANDING ONLY -
 FOR TAKEOFF C.G. LIMITS SEE SHEET 7 & 8

GROSS WEIGHT (LBS)	C.G. LIMITS* SUPERSONIC SPEED TO 35% MAC																					
	C.G. LIMITS* SUBSONIC SPEED TO 30.8% MAC																					
	MOMENT/1000												MOMENT/1000									
	23.5% MAC ARM-412.9	24.0% MAC ARM-414.3	24.5% MAC ARM-415.7	25% MAC ARM-417.2	25.5% MAC ARM-418.6	26% MAC ARM-420.0	26.5% MAC ARM-421.5	27% MAC ARM-422.9	27.5% MAC ARM-424.3	28% MAC ARM-425.7	28.5% MAC ARM-427.2	29% MAC ARM-428.6	29.5% MAC ARM-430.0	30% MAC ARM-431.4	30.3% MAC ARM-432.3	30.5% MAC ARM-432.9	30.8% MAC ARM-433.7	31% MAC ARM-434.3	32% MAC ARM-437.1	33% MAC ARM-440	34% MAC ARM-442.8	
25000	10323	10358	10393	10430	10465	10500	10538	10573	10608	10643	10680	10715										
100	10364	10399	10434	10472	10507	10542	10580	10615	10650	10685	10723	10758										
200	10405	10440	10476	10513	10549	10584	10622	10657	10692	10728	10765	10801										
300	10446	10482	10517	10555	10591	10626	10664	10699	10735	10770	10808	10844										
400	10488	10523	10559	10597	10632	10668	10706	10742	10777	10813	10851	10886	10922									
25500	10529	10565	10600	10639	10674	10710	10748	10784	10820	10855	10894	10929	10965									
600	10570	10606	10642	10680	10716	10752	10790	10826	10862	10898	10936	10972	11008									
700	10612	10648	10683	10722	10758	10794	10833	10869	10905	10940	10979	11015	11051									
800	10653	10689	10725	10764	10800	10836	10875	10911	10947	10983	11022	11058	11094	11130								
900	10694	10730	10767	10805	10842	10878	10917	10953	10989	11026	11064	11101	11137	11173								
26000	10735	10772	10808	10847	10884	10920	10959	10995	11032	11068	11107	11144	11180	11216	11240	11255	11276	11292	11365			
100	10777	10813	10850	10889	10925	10962	11001	11038	11074	11111	11150	11186	11223	11260	11283	11299	11320	11335	11408			
200	10818	10855	10891	10931	10967	11004	11043	11080	11117	11153	11193	11229	11266	11303	11326	11342	11363	11379	11452			
300	10859	10896	10933	10972	11009	11046	11085	11122	11159	11196	11235	11272	11309	11346	11369	11385	11406	11422	11496			
400	10901	10938	10974	11014	11051	11088	11128	11165	11202	11238	11278	11315	11352	11389	11413	11429	11450	11466	11539			
26500	10942	10979	11016	11056	11093	11130	11170	11207	11244	11281	11321	11358	11395	11432	11456	11472	11493	11509	11583			
600	10983	11020	11058	11098	11135	11172	11212	11249	11286	11324	11364	11401	11438	11475	11499	11515	11536	11552	11627			
700	11024	11062	11099	11139	11177	11214	11254	11291	11329	11366	11406	11444	11481	11518	11542	11558	11580	11596	11671			
800	11066	11103	11141	11181	11218	11256	11296	11334	11371	11409	11449	11486	11524	11562	11586	11602	11623	11639	11714			
900	11107	11145	11182	11223	11260	11298	11338	11376	11414	11451	11492	11529	11567	11605	11629	11645	11667	11683	11758			
27000	11148	11186	11224	11264	11302	11340	11381	11418	11456	11494	11534	11572	11610	11648	11672	11688	11710	11726	11802			
100	11190	11228	11265	11306	11344	11382	11423	11461	11499	11536	11577	11615	11653	11691	11715	11732	11753	11770	11845	11924		
200	11231	11269	11307	11348	11386	11424	11465	11503	11541	11579	11620	11658	11696	11734	11759	11775	11797	11813	11889	11968		
300	11272	11310	11349	11390	11428	11466	11507	11545	11583	11622	11663	11701	11739	11777	11802	11818	11840	11856	11933	12012		
400	11313	11352	11390	11431	11470	11508	11549	11587	11626	11664	11705	11744	11782	11820	11845	11861	11883	11900	11977	12056		
27500	11355	11393	11432	11473	11512	11550	11591	11630	11668	11707	11748	11787	11825	11864	11888	11905	11927	11943	12020	12100		
600	11396	11435	11473	11515	11553	11592	11633	11672	11711	11749	11791	11829	11868	11907	11931	11948	11970	11987	12064	12144		
700	11437	11476	11515	11556	11595	11634	11676	11714	11753	11792	11833	11872	11911	11950	11975	11991	12013	12030	12108	12188		
800	11479	11518	11556	11598	11637	11676	11718	11757	11796	11834	11876	11915	11954	11993	12018	12035	12057	12074	12151	12232		
900	11520	11559	11598	11640	11679	11718	11760	11799	11838	11877	11919	11958	11997	12036	12061	12078	12100	12117	12195	12276		
28000	11561	11600	11640	11682	11721	11760	11802	11841	11880	11920	11962	12001	12040	12079	12104	12121	12144	12160	12239	12320		
100	11602	11642	11681	11723	11763	11804	11844	11883	11923	11962	12004	12044	12083	12122	12148	12164	12187	12204	12283	12364	12443	
200	11644	11683	11723	11765	11805	11844	11886	11926	11965	12005	12047	12087	12126	12165	12191	12208	12230	12247	12326	12408	12487	
300	11685	11725	11764	11807	11846	11886	11928	11968	12008	12047	12090	12129	12169	12209	12234	12251	12273	12291	12370	12452	12531	
400	11726	11766	11806	11848	11888	11928	11971	12010	12050	12090	12132	12172	12212	12252	12277	12294	12317	12334	12414	12496	12576	
28500	11768	11808	11847	11890	11930	11970	12013	12053	12093	12132	12175	12215	12255	12295	12321	12338	12360	12378	12457	12540	12620	
600	11809	11849	11889	11932	11972	12012	12055	12095	12135	12175	12218	12258	12298	12338	12364	12381	12404	12421	12501	12584	12664	
700	11850	11890	11931	11974	12014	12054	12097	12137	12177	12218	12261	12301	12341	12381	12407	12424	12447	12464	12545	12628	12708	
800	11892	11932	11972	12015	12056	12096	12139	12180	12220	12260	12303	12344	12384	12424	12450	12468	12491	12508	12588	12672	12753	
900	11933	11973	12014	12057	12098	12138	12181	12222	12262	12303	12346	12387	12427	12467	12493	12511	12534	12551	12632	12716	12797	

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CENTER OF GRAVITY TABLE

*C.G. LIMITS SHOWN ARE FOR FLIGHT AND LANDING ONLY -
FOR TAKE-OFF C.G. LIMITS SEE SHEET 7 & 8

GROSS WEIGHT (LBS)	C.G. LIMITS* SUPERSONIC SPEED TO 35% MAC																					
	C.G. LIMITS* SUBSONIC SPEED TO 30.8% MAC										C.G. LIMITS* SUPERSONIC SPEED TO 35% MAC											
	MOMENT/1000										MOMENT/1000											
	23.5% MAC ARM=412.9	24.0% MAC ARM=414.3	24.5% MAC ARM=415.7	25% MAC ARM=417.2	25.5% MAC ARM=418.6	26% MAC ARM=420.0	26.5% MAC ARM=421.5	27% MAC ARM=422.9	27.5% MAC ARM=424.3	28% MAC ARM=425.7	28.5% MAC ARM=427.2	29% MAC ARM=428.6	29.5% MAC ARM=430.0	30% MAC ARM=431.4	30.3% MAC ARM=432.3	30.5% MAC ARM=432.9	30.8% MAC ARM=433.7	31% MAC ARM=434.3	32% MAC ARM=437.1	33% MAC ARM=440	34% MAC ARM=442.8	35% MAC ARM=445.7
29000	11974	12015	12055	12099	12139	12180	12224	12264	12305	12345	12389	12429	12470	12511	12537	12554	12577	12595	12676	12760	12841	
100	12015	12056	12097	12141	12181	12222	12266	12306	12347	12388	12432	12472	12513	12554	12580	12597	12621	12638	12720	12804	12885	
200	12057	12098	12138	12182	12223	12264	12308	12349	12390	12430	12474	12515	12556	12597	12623	12641	12664	12682	12763	12848	12930	13014
300	12098	12139	12180	12224	12265	12306	12350	12391	12432	12473	12517	12558	12599	12640	12666	12684	12707	12725	12807	12892	12974	13059
400	12139	12180	12222	12266	12307	12348	12392	12433	12474	12516	12560	12601	12642	12683	12710	12727	12751	12768	12851	12936	13018	13104
29500	12181	12222	12263	12307	12349	12390	12434	12476	12517	12558	12602	12644	12685	12726	12753	12771	12794	12812	12894	12980	13063	13148
600	12222	12263	12305	12349	12391	12432	12476	12518	12559	12601	12645	12687	12728	12769	12796	12814	12838	12855	12938	13024	13107	13193
700	12263	12305	12346	12391	12432	12474	12519	12560	12602	12643	12688	12729	12771	12813	12839	12857	12881	12899	12982	13068	13151	13237
800	12304	12346	12388	12433	12474	12516	12561	12602	12644	12686	12731	12772	12814	12856	12883	12900	12924	12942	13026	13112	13195	13282
900	12346	12388	12429	12474	12516	12558	12603	12645	12687	12728	12773	12815	12857	12899	12926	12944	12968	12986	13069	13156	13240	13326
30000	12387	12429	12471	12516	12558	12600	12645	12687	12729	12771	12816	12858	12900	12942	12969	12987	13011	13029	13113	13200	13284	13371
100	12470	12513	12558	12600	12642	12687	12729	12771	12814	12859	12901	12943	12985	13012	13030	13054	13072	13157	13244	13328	13416	
200	12512	12554	12599	12642	12684	12729	12772	12814	12856	12901	12944	12986	13028	13055	13074	13098	13116	13200	13288	13373	13460	
300	12553	12596	12641	12684	12726	12771	12814	12856	12899	12944	12987	13029	13071	13099	13117	13141	13159	13244	13332	13417	13505	
400	12595	12637	12683	12725	12768	12814	12856	12899	12941	12987	13029	13072	13115	13142	13160	13184	13203	13288	13376	13461	13549	
30500	12636	12679	12725	12767	12810	12856	12898	12941	12984	13026	13072	13115	13158	13201	13228	13247	13271	13290	13375	13464	13550	13638
600	12720	12766	12809	12852	12898	12941	12984	13026	13069	13115	13158	13201	13244	13287	13330	13358	13377	13401	13486	13576	13663	13752
700	12762	12808	12851	12894	12940	12983	13026	13069	13115	13158	13201	13244	13287	13330	13358	13377	13401	13486	13576	13663	13752	
800	12804	12850	12893	12936	12982	13025	13068	13112	13158	13201	13244	13287	13330	13358	13377	13401	13486	13576	13663	13752	13841	
900	12845	12891	12935	12978	13024	13068	13111	13154	13200	13244	13287	13330	13358	13377	13401	13486	13576	13663	13752	13841	13930	
31000	12887	12933	12977	13020	13067	13110	13153	13197	13243	13287	13330	13373	13417	13445	13463	13488	13507	13594	13684	13771	13861	
100	12928	12975	13018	13062	13109	13152	13196	13239	13286	13329	13372	13416	13460	13488	13506	13531	13550	13638	13728	13815	13906	
200	12970	13017	13060	13104	13151	13194	13238	13282	13329	13372	13416	13460	13488	13506	13531	13550	13575	13661	13752	13841	13930	
300	13011	13058	13102	13146	13193	13237	13281	13324	13371	13415	13459	13503	13531	13550	13575	13594	13681	13772	13860	13950	14040	
400	13053	13100	13144	13188	13235	13279	13323	13367	13414	13458	13502	13546	13574	13593	13618	13637	13725	13816	13904	13995	14084	
31500	13095	13142	13186	13230	13277	13321	13365	13410	13457	13501	13545	13589	13617	13636	13662	13680	13769	13860	13948	14037	14129	
600	13136	13184	13228	13272	13319	13364	13408	13452	13500	13544	13588	13632	13661	13680	13705	13724	13812	13904	13992	14084	14173	
700	13178	13225	13270	13314	13362	13406	13450	13495	13542	13587	13631	13675	13704	13723	13748	13767	13856	13948	14037	14129	14218	
800	13219	13267	13311	13356	13404	13448	13493	13537	13585	13629	13674	13719	13747	13766	13792	13811	13900	13992	14081	14173	14262	
900	13261	13309	13353	13398	13446	13491	13535	13580	13628	13672	13717	13762	13790	13810	13835	13854	13943	14036	14125	14218	14307	
32000	13302	13350	13395	13440	13488	13533	13578	13622	13670	13715	13760	13805	13834	13853	13878	13898	13987	14080	14170	14262	14352	
100	13344	13392	13437	13482	13530	13575	13620	13665	13713	13758	13803	13848	13877	13896	13922	13941	14031	14124	14214	14307	14396	
200	13386	13434	13479	13524	13572	13617	13662	13708	13756	13801	13846	13891	13920	13939	13965	13984	14075	14168	14258	14352	14441	
300	13427	13476	13521	13566	13614	13660	13705	13750	13799	13844	13889	13934	13963	13983	14009	14028	14118	14212	14307	14396	14485	
400	13469	13517	13563	13608	13657	13702	13747	13793	13841	13887	13932	13977	14007	14026	14052	14071	14162	14256	14347	14441	14530	
32500	13510	13559	13605	13650	13699	13744	13790	13835	13884	13930	13975	14021	14050	14069	14095	14115	14206	14300	14391	14485	14574	
600	13552	13601	13646	13692	13741	13787	13832	13878	13927	13972	14018	14064	14093	14113	14139	14158	14249	14344	14435	14530	14619	
700	13593	13642	13688	13734	13783	13829	13875	13920	13969	14015	14061	14107	14136	14156	14182	14202	14293	14388	14480	14574	14664	
800	13635	13684	13730	13776	13825	13871	13917	13963	14012	14058	14104	14150	14179	14199	14225	14245	14337	14432	14524	14619	14708	
900	13677	13726	13772	13818	13867	13913	13959	14006	14054	14101	14147	14193	14223	14242	14269	14288	14381	14476	14568	14664	14753	

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CENTER OF GRAVITY TABLE
 *C.G. LIMITS SHOWN ARE FOR FLIGHT AND LANDING ONLY -
 FOR TAKE-OFF C.G. LIMITS SEE SHEET 7 & 8

GROSS WEIGHT (LBS)	C.G. LIMITS * SUPERSONIC SPEED TO 35% MAC																			
	C.G. LIMITS * SUBSONIC SPEED TO 30.8% MAC												MOMENT/1000							
	MOMENT/1000																			
	24.5% MAC ARM=415.7	25.0% MAC ARM=417.2	25.5% MAC ARM=418.6	26% MAC ARM=420.0	26.5% MAC ARM=421.5	27% MAC ARM=422.9	27.5% MAC ARM=424.3	28% MAC ARM=425.7	28.5% MAC ARM=427.2	29% MAC ARM=428.6	29.5% MAC ARM=430.0	30.0% MAC ARM=431.4	30.3% MAC ARM=432.3	30.5% MAC ARM=432.9	30.8% MAC ARM=433.7	31% MAC ARM=434.3	32% MAC ARM=437.1	33% MAC ARM=440	34% MAC ARM=442.8	35% MAC ARM=445.7
33000	13718	13768	13814	13860	13910	13956	14002	14048	14098	14144	14190	14236	14266	14286	14312	14332	14424	14520	14612	14708
100	13760	13809	13856	13902	13952	13998	14044	14091	14140	14187	14233	14279	14309	14329	14355	14375	14468	14564	14657	14753
200		13851	13898	13944	13994	14040	14087	14133	14183	14230	14276	14322	14352	14372	14399	14419	14512	14608	14701	14797
300		13893	13939	13986	14036	14083	14129	14176	14226	14272	14319	14366	14396	14416	14442	14462	14555	14652	14745	14842
400		13934	13981	14028	14078	14125	14172	14218	14268	14315	14362	14409	14439	14459	14486	14506	14599	14696	14790	14886
33500		13976	14023	14070	14120	14167	14214	14261	14311	14358	14405	14452	14482	14502	14529	14549	14643	14740	14834	14931
600			14065	14112	14162	14209	14256	14304	14354	14401	14448	14495	14525	14545	14572	14592	14687	14784	14878	14976
700			14107	14154	14205	14252	14299	14346	14397	14444	14491	14538	14569	14589	14616	14636	14730	14828	14922	15020
800			14149	14196	14247	14294	14341	14389	14439	14487	14534	14581	14612	14632	14659	14679	14774	14872	14967	15065
900			14191	14238	14289	14336	14384	14431	14482	14530	14577	14624	14655	14675	14702	14723	14818	14916	15011	15109
34000			14232	14280	14331	14379	14426	14474	14525	14572	14620	14668	14698	14719	14746	14766	14861	14960	15055	15154
100				14322	14373	14421	14469	14516	14568	14615	14663	14711	14741	14762	14789	14810	14905	15004	15099	15198
200				14364	14415	14463	14511	14559	14610	14658	14706	14754	14785	14805	14833	14853	14949	15048	15144	15243
300				14406	14457	14505	14553	14602	14653	14701	14749	14797	14828	14848	14876	14896	14993	15092	15188	15288
400				14448	14500	14548	14596	14644	14696	14744	14792	14840	14871	14892	14919	14940	15036	15136	15232	15332
34500				14490	14542	14590	14638	14687	14738	14787	14835	14883	14914	14935	14963	14983	15080	15180	15277	15377
600					14584	14632	14681	14729	14781	14830	14878	14926	14958	14978	15006	15027	15124	15224	15321	15421
700					14626	14675	14723	14772	14824	14872	14921	14970	15001	15022	15049	15070	15167	15268	15365	15466
800					14668	14717	14766	14814	14867	14915	14964	15013	15044	15065	15093	15114	15211	15312	15409	15510
900						14759	14808	14857	14909	14958	15007	15056	15087	15108	15136	15157	15255	15356	15454	15555
35000						14802	14851	14900	14952	15001	15050	15099	15131	15152	15180	15201	15299	15400	15498	15600
100						14844	14893	14942	14995	15044	15093	15142	15174	15195	15223	15244	15342	15444	15542	15644
200						14886	14935	14985	15037	15087	15136	15185	15217	15238	15266	15287	15386	15488	15587	15689
300							14978	15027	15080	15130	15179	15228	15260	15281	15310	15331	15430	15532	15631	15733
400							15020	15070	15123	15172	15222	15272	15303	15325	15353	15374	15473	15576	15675	15778
35500							15063	15112	15166	15215	15265	15315	15347	15368	15396	15418	15517	15620	15719	15822
600							15105	15155	15208	15258	15308	15358	15390	15411	15440	15461	15561	15664	15764	15867
700							15148	15197	15251	15301	15351	15401	15433	15455	15483	15505	15604	15708	15808	15911
800							15190	15240	15294	15344	15394	15444	15476	15498	15526	15548	15648	15752	15852	15956
900							15232	15283	15336	15387	15437	15487	15520	15541	15570	15591	15692	15796	15897	16001
36000							15275	15325	15379	15430	15480	15530	15563	15584	15613					
100							15317	15368	15422	15472	15523	15574	15606	15628	15657					
200							15360	15410	15465	15515	15566	15617	15649	15671	15700					
300							15402	15453	15507	15558	15609	15660	15692	15714	15743					
400							15445	15495	15550	15601	15652	15703	15736	15758	15787					
36500							15487	15538	15593	15644	15695	15746	15779	15801	15830					
600							15529	15581	15636	15687	15738	15789	15822	15844	15873					
700							15572	15623	15678	15730	15781	15832	15865	15887	15917					
800							15614	15666	15721	15772	15824	15876	15909	15931	15960					
900							15657	15708	15764	15815	15867	15919	15952	15974	16004					

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CENTER OF GRAVITY TABLE
 *C.G. LIMITS SHOWN ARE FOR FLIGHT AND LANDING ONLY.
 FOR TAKE-OFF C.G. LIMITS SEE SHEET 7 & 8

GROSS WEIGHT (LBS)	C.G. LIMITS* SUPERSONIC SPEED TO 35% MAC							
	C.G. LIMITS* SUBSONIC SPEED TO 30.8% MAC							
	MOMENT/1000							
	28% MAC ARM=425.7	28.5% MAC ARM=427.2	29% MAC ARM=428.6	29.5% MAC ARM=430.0	30.0% MAC ARM=431.4	30.3% MAC ARM=432.3	30.5% MAC ARM=432.9	30.8% MAC ARM=433.7
37000	15751	15806	15858	15910	15962	15995	16017	16047
100	15793	15849	15901	15953	16005	16038	16061	16090
200	15836	15892	15944	15996	16048	16082	16104	16134
300	15879	15935	15987	16039	16091	16125	16147	16177
400	15921	15977	16030	16082	16134	16168	16190	16220
37500	15964	16020	16073	16125	16178	16211	16234	16264
600	16006	16063	16115	16168	16221	16254	16277	16307
700	16049	16105	16158	16211	16264	16298	16320	16350
800	16091	16148	16201	16254	16307	16341	16364	16394
900	16134	16191	16244	16297	16350	16384	16407	16437
38000	16177	16234	16287	16340	16393	16427	16450	16481
100	16219	16276	16330	16383	16436	16471	16493	16524
200	16262	16319	16373	16426	16479	16514	16537	16567
300	16304	16362	16415	16469	16523	16557	16580	16611
400	16347	16404	16458	16512	16566	16600	16623	16654
38500	16389	16447	16501	16555	16609	16644	16667	16697
600	16432	16490	16544	16598	16652	16687	16710	16741
700	16475	16533	16587	16641	16695	16730	16753	16784
800	16517	16575	16630	16684	16738	16773	16797	16828
900	16560	16618	16673	16727	16781	16816	16840	16871
39000	16602	16661	16715	16770	16825	16860	16883	16914

MOMENT/1000 CHANGE FOR RETRACTION OF LANDING GEAR IS CONSIDERED NEGLIGIBLE.

GROSS WEIGHT LIMITATIONS

MAXIMUM TAKE-OFF ----- LBS**
 MAXIMUM LANDING ----- LBS**

**SERVICE ACTIVITIES SHALL INSERT CURRENT FIGURES FROM LATEST APPLICABLE TECHNICAL ORDERS COVERING OPERATING INSTRUCTIONS.

IN FLIGHT AND LANDING C.G. LIMITS TAPER					
GROSS WEIGHT		FWD C.G. LIMITS (EFFECT OF LANDING GEAR RETRACTED CONSIDERED NEGLIGIBLE)			
		FROM		TO	
FROM	TO	% MAC	MOM. ARM	% MAC	MOM. ARM
21000	30000	23.5	412.9	23.5	412.9
30000	30500	23.5	412.9	24.0	414.3
30500	33119	24.0	414.3	24.5	415.7
33119	35327	24.5	415.7	27.0	422.9
35327	MAX GR WT	27.0	422.9	28.0	425.7
GROSS WEIGHT		AFT C.G. LIMITS			
		FROM		TO	
FROM	TO	% MAC	MOM. ARM	% MAC	MOM. ARM
21000	26172	24.0	414.3	30.5	432.9
26172	29235	30.5	432.9	30.5	432.9
29235	31765	30.5	432.9	30.0	431.4
31765	33000	30.0	431.4	30.3	432.3
33000	33300	30.3	432.3	30.8	433.7
33300	MAX GR WT	30.8	433.7	30.8	433.7

DUE TO THE USE OF INCREMENTS OF ONE HALF OF ONE PERCENT MAC, THE CENTER OF GRAVITY TABLE DOES NOT EXACTLY REFLECT THE DESIGN LIMITS TAPER.

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CHART E
 F-106A
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**TAKEOFF LIMITS
 INCREASED CAPACITY FUEL SYSTEM
 NORMAL FUEL CONDITION**

CHART E
 MODEL F-106A
 SHEET 7 OF 16
 DATE - SEE SHEET 1

(SEE SHEET 8 FOR OVERLOAD -
 NO EXTERNAL FUEL - TAKEOFF LIMITS)

FORWARD TAKEOFF LIMITS

<u>WEIGHT</u>	<u>C.G. % MAC</u>
31800 - 33500	25.0
33501 - 33700	25.2
33701 - 33800	25.3
33801 - 34000	25.5
34001 - 34200	25.7
34201 - 34400	25.9
34401 - 34500	26.1

AFT TAKEOFF LIMITS

<u>CONFIGURATION</u>	<u>WEIGHT</u>	<u>C. G. % MAC</u>
NO EXPENDABLE ARMAMENT	31801 - 32300	28.2
	32301 - 32800	28.1
	32801 - 33300	28.0
	33301 - 34500	27.9
1 MB-1 AND 4 FALCONS	33000 - 33700	26.9
	33701 - 34200	26.8
	34201 - 34500	26.7
1 MB-1 AND 2 FORWARD FALCONS	32900 - 33400	27.0
	33401 - 33900	26.9
	33901 - 34400	26.8
1 MB-1 AND 2 AFT FALCONS	32900 - 33400	27.3
	33401 - 33900	27.2
	33901 - 34400	27.1
1 MB-1	32600 - 33100	27.5
	33101 - 33600	27.4
	33601 - 34100	27.3
4 FALCONS	32300 - 32800	27.6
	32801 - 33300	27.5
	33301 - 33800	27.4
2 FWD FALCONS	32100 - 32500	27.7
	32501 - 33000	27.6
	33001 - 33500	27.5
2 AFT FALCONS	32100 - 32500	28.0
	32501 - 33000	27.9
	33001 - 33500	27.8

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**TAKEOFF LIMITS
("T" TANKS FULL)
OVERLOAD CONDITION (NO EXTERNAL FUEL)**

CHART E
MODEL F-106A
SHEET 8 OF 16
DATE - SEE SHEET 1

(SEE SHEET 7 FOR NORMAL FUEL TAKEOFF LIMITS)

FORWARD TAKEOFF LIMITS

<u>WEIGHT</u>	<u>C. G. % MAC</u>
33200 - 35500	27.1
35501 - 35700	27.4
35701 - 36000	27.6

AFT TAKEOFF LIMITS

<u>CONFIGURATION</u>	<u>WEIGHT</u>	<u>C. G. % MAC</u>
NO EXPENDABLE ARMAMENT	33200 - 34200	30.2
	34201 - 34700	30.1
	34701 - 36000	30.0
1 MB-1 AND 4 FALCONS	34400 - 35100	29.0
	35101 - 35600	28.9
	35601 - 36000	28.8
1 MB-1 AND 2 FORWARD FALCONS	34300 - 34800	29.1
	34801 - 35300	29.0
	35301 - 35800	28.9
	35801 - 36000	28.8
1 MB-1 AND 2 AFT FALCONS	34300 - 34800	29.4
	34801 - 35300	29.3
	35301 - 35800	29.2
	35801 - 36000	29.1
1 MB-1	34000 - 34500	29.6
	34501 - 35000	29.5
	35001 - 35500	29.4
	35501 - 36000	29.3
4 FALCONS	33700 - 34200	29.7
	34201 - 34700	29.6
	34701 - 35200	29.5
	35201 - 36000	29.4
2 FWD FALCONS	33500 - 33900	29.6
	33901 - 34400	29.7
	34401 - 34900	29.6
	34901 - 36000	29.5
2 AFT FALCONS	33500 - 34100	30.0
	34401 - 34900	29.9
	34901 - 36000	29.8

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TAKE-OFF C.G. LIMITS
(FULL INTERNAL AND EXTERNAL FUEL)
EXTENDED RANGE MISSION
AFT TAKE-OFF C.G. LIMITS (Continued)

CHART E
MODEL F-106A
SHEET 10 OF 16
DATE-SEE SHEET 1

CONFIGURATION	WEIGHT	C.G. %MAC
(4) GAR-3 OR -4 MISSILES	36800 - 36900	29.4
	36901 - 37000	29.5
	37001 - 37100	29.6
	37101 - 37200	29.8
	37201 - 38000	30.0
	38001 - 38300	29.9
	38301 - 39500	29.8
(2) FWD. GAR-3 OR -4 MISSILES	36500 - 36600	29.6
	36601 - 36700	29.7
	36701 - 36800	29.8
	36801 - 36900	29.9
	36901 - 37200	30.0
	37201 - 37700	30.1
	37701 - 39500	30.0
(2) AFT GAR-3 OR -4 MISSILES	36500 - 36600	29.9
	36601 - 36700	30.0
	36701 - 36800	30.1
	36801 - 36900	30.2
	36901 - 37100	30.3
	37101 - 37200	30.4
	37201 - 37500	30.5
	37501 - 38300	30.4
38301 - 39500	30.2	

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TAKE-OFF C.G. LIMITS
(FULL INTERNAL AND EXTERNAL FUEL)
EXTENDED RANGE MISSION
FORWARD TAKE-OFF C.G. LIMITS

CHART E
MODEL F106A
SHEET 9 OF 16
DATE - SEE SHEET 1
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(SEE SHEET 7 AND 8 FOR INTERNAL FUEL CONDITION)

WEIGHT	C.G.% MAC
36500 - 38400	28.0
38401 - 38700	28.1
38701 - 39000	28.2
39001 - 39200	28.3
39201 - 39300	28.4
39301 - 39400	28.5
39401 - 39500	28.6

AFT TAKE-OFF C.G. LIMITS

CONFIGURATION	WEIGHT	C.G.% MAC
NO EXPENDABLE ARMAMENT	36500 - 36700	30.4
	36701 - 36800	30.5
	36801 - 36900	30.6
	36901 - 37400	30.7
	37401 - 37900	30.6
	37901 - 39000	30.5
	39001 - 39500	30.6
(1) MB-1 (4) GAR-3 OR -4 MISSILES	37700 - 37800	29.0
	37801 - 37900	29.1
	37901 - 39500	29.2
(1) MB-1 (2) FWD. GAR-3 OR -4 MISSILES	37400 - 37500	29.2
	37501 - 37600	29.3
	37601 - 38000	29.4
	38001 - 38100	29.5
	38101 - 38900	29.6
(1) MB-1 (2) AFT GAR-3 OR -4 MISSILES	38901 - 39500	29.5
	37400 - 37600	29.4
	37601 - 37700	29.5
	37701 - 37900	29.6
	37901 - 38300	29.7
(1) MB-1	38301 - 39200	29.6
	39201 - 39500	29.5
	37100 - 37300	29.4
	37301 - 37400	29.6
	37401 - 37600	29.7
(1) MB-1	37601 - 38700	29.9
	38701 - 39500	29.8

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INTERNAL FUEL TABLE JP-4
(USABLE)
NORMAL CONDITION - NO FUEL IN TANK "T"

CHART E
MODEL F-106A
SHEET 11 OF 16
DATE - SEE SHEET 1

*BASED UPON USE OF MIL-F-5624B (1)
GRADE JP-4 FUEL AT 6.5 LB PER
U. S. GAL

SEE SHEETS 13 AND 14 FOR OVERLOAD CONDITION

U.S. GALLONS	WEIGHT*	ARM	MOMENT 1000
10	65	536.7	35
20	130	536.5	70
30	195	536.3	105
40	260	536.1	139
50	325	535.8	174
60	390	535.5	209
70	455	535.0	243
80	520	534.5	278
90	585	533.8	312
100	650	533.1	347
110	715	532.2	381
120	780	531.4	414
130	845	530.5	448
140	910	529.5	482
150	975	528.5	515
160	1040	527.7	549
170	1105	526.4	582
180	1170	525.0	614
190	1235	523.8	647
200	1300	522.4	679
210	1365	520.5	710
220	1430	514.3	735
230	1495	507.4	759
240	1560	507.6	792
250	1625	507.8	825
260	1690	508.0	859
270	1755	508.1	892
280	1820	508.3	925
290	1885	508.5	959
300	1950	508.8	992
310	2015	509.1	1026
320	2080	509.2	1059
330	2145	509.3	1092
340	2210	509.2	1125
350	2275	509.1	1158
360	2340	508.9	1191
370	2405	508.7	1223
380	2470	508.4	1256

U.S. GALLONS	WEIGHT*	ARM	MOMENT 1000
390	2535	505.0	1280
400	2600	500.9	1302
410	2665	493.3	1315
420	2730	487.9	1332
430	2795	482.7	1349
440	2860	476.5	1363
450	2925	471.1	1378
460	2990	465.8	1393
470	3055	460.7	1407
480	3120	456.1	1423
490	3185	451.7	1439
500	3250	447.5	1454
510	3315	443.0	1469
520	3380	439.2	1484
530	3445	435.4	1500
540	3510	431.8	1516
550	3575	428.8	1533
560	3640	425.0	1547
570	3705	423.2	1568
580	3770	423.3	1596
590	3835	423.5	1624
600	3900	424.2	1654
610	3965	425.4	1687
620	4030	426.5	1719
630	4095	427.7	1751
640	4160	429.1	1785
650	4225	430.4	1818
660	4290	431.7	1852
670	4355	433.1	1886
680	4420	434.4	1920
690	4485	435.8	1955
700	4550	437.2	1989
710	4615	438.8	2025
720	4680	440.1	2060
730	4745	441.3	2094
740	4810	442.6	2129
750	4875	443.8	2164
760	4940	445.0	2198

FUEL AT WEIGHING

WHEN WEIGHING AIRPLANE THE FUEL MUST BE IN ONE OF THE FOLLOWING CONDITIONS: (1) TANKS DRY (2) UNDRAINABLE FUEL ONLY (REFERENCE LAST PAGE, ITEM 3 OF CHART A) (3) TANKS FULL.

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INTERNAL FUEL TABLE JP-4
(USABLE)
NORMAL CONDITION - NO FUEL IN TANK "T"

CHART E
MODEL F-106A
SHEET 12 OF 16
DATE - SEE SHEET 1

*BASED UPON USE OF MIL-F-5624B (1)
GRADE JP-4 FUEL AT 6.5 LB PER
U. S. GAL

SEE SHEETS 13 AND 14 FOR OVERLOAD CONDITION

U.S. GALLONS	WEIGHT*	ARM	MOMENT 1000
770	5005	446.3	2234
780	5070	447.1	2267
790	5135	448.0	2300
800	5200	449.1	2335
810	5265	450.0	2369
820	5330	450.8	2403
830	5395	451.7	2437
840	5460	452.4	2470
850	5525	453.1	2503
860	5590	453.8	2537
870	5655	454.4	2570
880	5720	455.0	2603
890	5785	455.6	2636
900	5850	456.1	2668
910	5915	456.5	2700
920	5980	457.0	2733
930	6045	457.5	2766
940	6110	457.9	2798
950	6175	458.3	2830
960	6240	458.6	2862
970	6305	458.6	2891
980	6370	458.5	2921
990	6435	458.2	2949
1000	6500	457.8	2976
1010	6565	457.4	3003
1020	6630	456.9	3029
1030	6695	456.4	3056
1040	6760	456.0	3083
1050	6825	455.5	3109
1060	6890	455.0	3135
1070	6955	454.5	3161
1080	7020	454.1	3188
1090	7085	453.6	3214
1100	7150	453.1	3240
1110	7215	452.7	3266
1120	7280	452.2	3292
1130	7345	451.7	3318
1140	7410	451.3	3344

U.S. GALLONS	WEIGHT*	ARM	MOMENT 1000
1150	7475	450.8	3370
1160	7540	450.3	3395
1170	7605	449.8	3421
1180	7670	449.4	3447
1190	7735	448.9	3472
1200	7800	448.4	3498
1210	7865	447.9	3523
1220	7930	447.2	3546
1230	7995	446.3	3568
1240	8060	444.1	3579
1250	8125	442.6	3596
1260	8190	441.2	3613
1270	8255	439.2	3626
1280	8320	438.2	3646
1290	8385	437.4	3668
1300	8450	436.9	3692
1310	8515	436.6	3718
1320	8580	436.3	3743
1330	8645	436.3	3772

FUEL AT WEIGHING

WHEN WEIGHING AIRPLANE THE FUEL MUST BE IN ONE OF THE FOLLOWING CONDITIONS: (1) TANKS DRY (2) UNDRAINABLE FUEL ONLY (REFERENCE LAST PAGE, ITEM 3 OF CHART A) (3) TANKS FULL.

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Report No: ZW-8-519
Model: F-106A
Date: 15 Nov. 1959

INTERNAL FUEL TABLE JP-4
(USABLE)
OVERLOAD CONDITION - FUEL IN TANK "T"

CHART E
MODEL F-106A
SHEET 13 OF 16
DATE - SEE SHEET 1

*BASED UPON USE OF MIL-F-5624B (1)
GRADE JP-4 FUEL AT 6.5 LB PER U.S. GAL

SEE SHEETS 11 AND 12 FOR NORMAL CONDITION

U.S. GALLONS	WEIGHT*	ARM	MOMENT 1000
10	65	553.5	36
20	130	547.0	71
30	195	543.5	106
40	260	541.8	141
50	325	540.7	176
60	390	542.7	212
70	455	544.8	248
80	520	544.7	283
90	585	541.8	317
100	650	539.5	351
110	715	538.2	385
120	780	537.0	419
130	845	536.0	453
140	910	534.6	486
150	975	531.6	518
160	1040	529.3	550
170	1105	527.7	583
180	1170	526.4	616
190	1235	524.7	648
200	1300	523.1	680
210	1365	521.5	712
220	1430	520.0	744
230	1495	518.4	775
240	1560	517.1	807
250	1625	516.0	839
260	1690	515.5	871
270	1755	515.0	904
280	1820	514.7	937
290	1885	514.4	970
300	1950	514.1	1002
310	2015	513.9	1036
320	2080	513.7	1068
330	2145	513.6	1102
340	2210	513.9	1136
350	2275	514.3	1170
360	2340	514.6	1204
370	2405	514.8	1238
380	2470	515.1	1272
390	2535	515.0	1306
400	2600	514.8	1338

U.S. GALLONS	WEIGHT*	ARM	MOMENT 1000
410	2665	514.4	1371
420	2730	512.4	1399
430	2795	508.1	1420
440	2860	503.5	1440
450	2925	498.0	1457
460	2990	492.5	1473
470	3055	487.6	1490
480	3120	482.0	1504
490	3185	476.9	1519
500	3250	471.0	1531
510	3315	466.6	1547
520	3380	462.0	1562
530	3445	457.1	1575
540	3510	452.2	1587
550	3575	447.4	1599
560	3640	442.8	1612
570	3705	439.9	1630
580	3770	436.8	1647
590	3835	434.1	1665
600	3900	432.8	1688
610	3965	434.5	1723
620	4030	435.6	1755
630	4095	436.7	1788
640	4160	437.8	1821
650	4225	439.0	1855
660	4290	440.1	1888
670	4355	441.2	1921
680	4420	442.4	1955
690	4485	443.5	1989
700	4550	444.6	2023
710	4615	445.6	2056
720	4680	446.7	2091
730	4745	447.8	2125
740	4810	448.9	2159
750	4875	450.0	2194
760	4940	451.1	2228
770	5005	452.2	2263
780	5070	453.4	2299
790	5135	454.5	2334
800	5200	455.5	2369

FUEL AT WEIGHING

WHEN WEIGHING AIRPLANE THE FUEL MUST BE IN ONE OF THE FOLLOWING CONDITIONS: (1) TANKS DRY (2) UNDRAINABLE FUEL ONLY (REFERENCE LAST PAGE, ITEM 3 OF CHART A) (3) TANKS FULL.

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Page: 142
Report No: ZW-8-519
Model: F-106A
Date: 15 Nov. 1959

INTERNAL FUEL TABLE JP-4
(USABLE)
OVERLOAD CONDITION - FUEL IN TANK "T"

CHART E
MODEL F-106A-
SHEET 14 OF 16
DATE - SEE SHEET 1

*BASED UPON USE OF MIL-F-5624B (1)
GRADE JP-4 FUEL AT 6.5 LB PER U.S. GAL

SEE SHEETS 11 AND 12 FOR NORMAL CONDITION

U.S. GALLONS	WEIGHT*	ARM	MOMENT 1000
810	5265	456.0	2401
820	5330	456.4	2433
830	5395	456.8	2464
840	5460	457.1	2496
850	5525	457.3	2527
860	5590	457.6	2558
870	5655	457.9	2589
880	5720	458.2	2621
890	5785	458.6	2653
900	5850	459.0	2685
910	5915	459.3	2717
920	5980	459.7	2749
930	6045	460.2	2782
940	6110	460.6	2814
950	6175	461.0	2847
960	6240	461.4	2879
970	6305	461.8	2912
980	6370	462.1	2944
990	6435	462.0	2973
1000	6500	461.7	3001
1010	6565	461.4	3029
1020	6630	461.0	3056
1030	6695	460.6	3084
1040	6760	460.2	3111
1050	6825	459.8	3138
1060	6890	459.4	3165
1070	6955	458.9	3192
1080	7020	458.3	3217
1090	7085	457.8	3244
1100	7150	457.2	3269
1110	7215	456.7	3295
1120	7280	456.2	3321
1130	7345	455.7	3347
1140	7410	455.2	3373
1150	7475	454.8	3400
1160	7540	454.4	3426
1170	7605	453.9	3452
1180	7670	453.4	3478
1190	7735	452.9	3503
1200	7800	452.3	3528

U.S. GALLONS	WEIGHT*	ARM	MOMENT 1000
1210	7865	451.7	3553
1220	7930	451.0	3576
1230	7995	450.3	3600
1240	8060	449.3	3621
1250	8125	448.3	3642
1260	8190	447.0	3661
1270	8255	445.4	3677
1280	8320	442.5	3682
1290	8385	441.5	3702
1300	8450	441.1	3727
1310	8515	441.2	3757
1320	8580	442.1	3793
1330	8645	443.0	3830
1340	8710	443.9	3866
1350	8775	444.8	3903
1360	8840	445.7	3940
1370	8905	446.6	3977
1380	8970	447.5	4014
1390	9035	448.4	4051
1400	9100	449.3	4089
1410	9165	450.2	4126
1420	9230	451.1	4164
1430	9295	452.0	4201
1440	9360	452.9	4239
1450	9425	453.9	4278
1460	9490	454.9	4317
1470	9555	455.4	4351
1480	9620	455.8	4385
1490	9685	456.1	4417
1500	9750	455.7	4443
1510	9815	455.2	4468
1520	9880	454.6	4491
1530	9945	454.1	4516
1540	10010	453.6	4541
1550	10075	453.1	4565
1560	10140	452.5	4588
1570	10205	452.0	4613
1580	10270	451.5	4637
1590	10335	451.0	4661
1600	10400	450.5	4685

FUEL AT WEIGHING

WHEN WEIGHING AIRPLANE THE FUEL MUST BE IN ONE OF THE FOLLOWING CONDITIONS: (1) TANKS DRY (2) UNDRAINABLE FUEL ONLY (REFERENCE LAST PAGE, ITEM 3 OF CHART A) (3) TANKS FULL.

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EXTERNAL FUEL TABLE JP-4			
FUEL-USABLE (2) TANKS U.S. GALLONS	WEIGHT*	ARM	<u>MOMENT</u> 1000
400	2600	439	1141
410	2665	440	1173
420	2730	440	1201
430	2795	441	1233
440	2860	441	1261
450	2925	442	1293
454**	2951	442	1304
460	2990	442	1322
470	3055	443	1353
DROPPABLE TANKS AND PYLONS (2)	330	451	149
UNUSABLE FUEL & GALLONS-DROPS WITH TANKS	39	494	19

* BASED UPON USE OF MIL - F-5624B (1) GRADE JP-4 FUEL AT 6.5 LBS. PER U.S. GALLON
 ** STANDARD QUANTITY OF USABLE EXTERNAL FUEL PER T.O. IF-106A-2-5

NORMAL FUEL	
TANK EMPTYING SEQUENCE	
TANK NO.	APPROX. GALLONS
1 PART	48
F PART	60
1 REMAINDER	251
2 ALL	311
3 PART	63
F PART	176
3 PART	194
3 REMAINDER	167
F REMAINDER	4
LINES	30

OVERLOAD FUEL	
TANK EMPTYING SEQUENCE	
TANK NO.	APPROX. GALLONS
1 PART	48
T PART	170
F PART	60
1 REMAINDER	251
2 ALL	311
3 PART	63
F PART	176
3 PART	194
3 REMAINDER	167
T REMAINDER	40
F REMAINDER	4
LINES	30

EXTERNAL TANKS
EMPTY PRIOR TO TANKS
NO. 1

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CREW CHART PILOT AND CHUTE NORMAL WEIGHT = 235 ARM = 149"	
WEIGHT	MOMENT/1000
180	27
200	30
220	33
<u>235</u>	<u>35</u>
240	36
260	39

OIL CHART MAXIMUM = 4.5 GAL ARM = 505"		
U.S. GAL	WEIGHT	MOMENT/1000
2	15	8
3	23	12
4	30	15
<u>4.5</u>	<u>34</u>	<u>17</u>
UNIT WEIGHT = 7.5 LB PER U.S. GAL		

POSSIBLE MISSILE LOADINGS						
LOADING - NO.	TYPE	LOCATION	NO.	WEIGHT	ARM	MOMENT/1000
1 TOTAL	GAR-3	FWD	2	282	275	78
	GAR-4	AFT	2	264	371	98
			4	546		176
2 TOTAL	GAR-3	FWD	2	282	275	78
	GAR-3	AFT	2	282	371	105
			4	564		183
3 TOTAL	GAR-4	FWD	2	264	275	73
	GAR-4	AFT	2	264	371	98
			4	528		171
4 TOTAL	GAR-3A	FWD	2	296	275	81
	GAR-4A	AFT	2	298	371	111
			4	594		192
5 TOTAL	GAR-3A	FWD	2	296	275	81
	GAR-3A	AFT	2	296	371	110
			4	592		191
6 TOTAL	GAR-4A	FWD	2	298	275	82
	GAR-4A	AFT	2	298	371	111
			4	596		193

ROCKET LOADING						
	TYPE		NO.	WEIGHT	ARM	MOMENT/1000
	MB-1		1	828	348	288

NOTE: MISSILE LAUNCHER RAILS ARE A PART OF BASIC WEIGHT AND ARE SHOWN ON CHART "A".

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WEIGHT AND BALANCE CLEARANCE FORM F TACTICAL
(USE REVERSE FOR TRANSPORT MISSIONS)

DATE		AIRPLANE TYPE F-106A		FROM Convair Palmdale, California		HOME STATION			
MISSION/TRIP/FLIGHT/NO. Flyaway		SERIAL NO. 58-759		TO		PILOT			
REMARKS For normal fuel condition use line #10 for take-off weight. C.G. 27.7% *Overload condition with E.C.P. 4144 (T Tanks full): with take off C.G. within indicated limits, landing C.G. will automatically fall within permissible limits. Horizontal arm for tank "T" fuel is 568 inches.		REF	ITEM			WEIGHT		INDEX OR MOM/1000	
		1	BASIC AIRPLANE (From Chart C)			23672	10018		
		2	OIL (4.5 Gal.)			34	17		
		3	DISTRIBUTION OF LOAD						
		COMPT.	CREW		BAGGAGE	CARGO AND MISC.			
			NO.	WEIGHT					
		C	1	235	Pilot		235	35	
		COMPUTER PLATE NO. (If used) Chart "E"							
		Pertinent instructions to the pilot for shifting load and crew during takeoff and landing should be noted above.		4 OPERATING WEIGHT			23941	10070	
		CORRECTIONS (Ref. 11)		5 COMPT. ROUNDS CALIBER					
COMPT.	ITEM	CHANGES (+ or -)		AMMUNITION					
		WEIGHT	INDEX OR MOM/1000						
Wing	Built in Transfer Tank (210 gal.)	1365	775	6 FORWARD					
				AFT					
				EXTERNAL					
				ROCKETS					
				7 BUILT IN (1304 Gal.)	8476	3702			
				BOMB BAY (Gal.)					
				EXTERNAL (Gal.)					
				8 WATER INJ. FLUID (Gal.)					
TOTAL WEIGHT REMOVED		-	-	9 JATO OR RATO					
TOTAL WEIGHT ADDED		+1365	+ 775	10 TAKEOFF CONDITION (Uncorrected)	32417	13772			
NET DIFFERENCE (Ref. 11)		1365	775	11 CORRECTIONS (If required)	1365	775			
				12 TAKEOFF CONDITION (Corrected)	33782	14547			
				13 TAKEOFF C. G. IN % M. A. C. OR IN.	29.7%				
				14 JATO OR RATO					
				LESS EXPENDABLES					
1 GROSS WT. TAKEOFF (lb.)		2 GROSS WT. LANDING (lb.)		BOMBS					
38,575		35,327		AMMUNITION					
3 PERMISSIBLE C. G. TAKEOFF		FROM	TO (% M. A. C. or IN.)	FUEL	1514 gal.	9841			
		27.1%	30.2%			4477			
4 PERMISSIBLE C. G. LANDING		FROM	TO (% M. A. C. or IN.)	15 ESTIMATED LANDING CONDITION	23941	10070			
		*	*	16 ESTIMATED LANDING C. G. IN % M. A. C. OR IN.	26.2%				
1 Enter constant used.		COMPUTED BY (Signature)							
2 Enter values from current applicable T. O.		WEIGHT AND BALANCE AUTHORITY (Signature)							
3 Applicable to gross weight (Ref. 12).		PILOT (Signature)							
4 Applicable to gross weight (Ref. 15).									

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