

CC
4100
C-105
FRONT
27-00-05
3/76

C-105 With J75
Production Engines

Report #7-0400-05
ISSUE 16

WEIGHT SUMMARY & C.G. POSITION

UNCLASSIFIED

Mr. O. Michaelsen

July 8/55

NON CLASSIFIED



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Report no.: QCX - AVRO - CF105 - R-7-0400-05 - Ess 16

has been ☐ downgraded to: _____
☒ de-classified

by (Name): Michel W. Drapeau

(Dept.): A/DND Coordinator, Access to Information

Date: Dec. 7, 1992

B. Aubrey
Signature

Classification cancelled / changed to: UNCLASSIFIED

By authority of: DEDA 7/DARET 5-5/DAS Eng 6-4-5

Date: 5 Nov 1992

Signature: B. Aubrey

Unit / Rank / Appointment: DSIS 3 / Secretary CRAD HQ DRP

SECRET

Date: 8th July, 1955
Aircraft: C-105 With J75 Engines
as Interim Power Plant

Report # 7-0400-05
Sheet # 001-1 Issue 16
Prepared By: E.W.H. Thompson

INTRODUCTION

This summary is a revised Weight and C.G. estimate of the C-105 Aircraft, based on the latest design information in being on 8th June, 1955. All Weight Changes and C.G. Moments are relative to Issue 15.

NOTES:

GENERAL:

- (a) As in Issue 15, Pratt and Whitney J75 Engines comprise the Interim Power Plant. (6,175 lb. each.)
- (b) The weight of Radio and Radar carried in this issue is 2,908 lb. The system is described as "Integrated Electronic System for C-105 Aircraft with certain deviations". The breakdown into items is given in Weight Summary Issue 14.
- (c) As in Issue 15, the extended leading edge is recorded in this issue.

1. STRUCTURE:

(a) Wing:

	WEIGHT
	<u>lb.</u>
I/W F/S to M/S Structure - redesigned auxiliary spar	- 70
re-estimate of Fus. side Rib	+ 3
I/W Joints - Misc. alterations	- 24
Weight Change Decrease	- 91

Ref. 002-1

(b) Fin and Rudder

No Weight Change 0

(c) Fuselage To Station 255"

Longerons - lower longerons redesigned	- 11
Cockpit Floor - .032 " doubler and stiffeners added	+ 5
Intake Ramp - Misc. design changes	- 8
Shear Panel - Estimate to first scheme drawings (includes 6 lb. allowance transferred from Centre Fuselage)	+ 16
Misc. Changes	+ 2
Weight Change Increase	+ 4

Ref. 002-1



45235

SECRET

Date: 8th July, 1955

Aircraft: C-105 With J75 Engines
as Interim Power Plant

Report # 7-0400-05

Sheet # 001-2 Issue 16

Prepared By: E.W.H. Thompson

INTRODUCTION

1. STRUCTURE:

WEIGHT
LB

(d) Fuselage Sta. 255" to 485"

Duct C.F. - redesign aft attachment ring
Skin C.F. - deletion of shear panel allowance
Former C.F. - reduction in gauges
Structure below lower longeron - misc changes

+ 15
- 6
- 70
- 4
- 65

Weight Change Decrease

Ref. 002-1

(e) Fuselage From 485" Aft.

Duct. - Redesigned
Longitudinal beams - redesigned
Dive Brake Accom. Structure - access panel redesign

+ 26
- 7
+ 1
+ 20

Weight Change Increase

Ref. 002-2

TOTAL STRUCTURE WEIGHT DECREASE

- 132 lb.

2. LANDING GEAR

- (a) Main Undercarriage - No Weight Change
- (b) Nose U/C Doors & fairings - Reduced skin gauge
- (c) Main U/C Hydraulics No Weight Change
- (d) Nose Undercarriage No Weight Change
- (e) Main U/C Doors & Fairings - No Weight Change
- (f) Nose U/C Hydraulics No Weight Change

0
- 5
0
0
0
0

Sub-Total

- 5

TOTAL LANDING GEAR WEIGHT DECREASE

- 5 lb.

3. POWER PLANT AND SERVICES

No Weight Change

0 lb.

4. FLYING CONTROLS

No Weight Change

0 lb.

5. EQUIPMENT

- (a) Missile Pack Structure - redesign attachments
- (b) Air Conditioning:

+ 4
- 5

- (1) Additional rain repellent ducting + 4 lb.
- (2) Boiler Manufacturer's Weight -12 lb.
- (3) Reducing valves manufacturer's weight + 3 lb.

- 5 lb.

TOTAL EQUIPMENT WEIGHT DECREASE

- 1 lb.

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Report # 7-0400-05
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Prepared By: E.W.H. Thompson

INTRODUCTION

SUMMARY

Weight Change - Aircraft Weight Empty

Structure	-	132 lb.
Landing Gear	-	5 lb.
Power Plant & Services		0 lb.
Flying Controls		0 lb.
Equipment	-	1 lb.

Weight Change - Operational Load Less Fuel

Nil.

Weight Change Operational Weight Empty - (Aircraft Less Fuel)

Issue 15

43,867 lb.

Issue 16

43,729 lb.

= - 138 lb.

SECRET

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Date: 8th July, 1955
Aircraft: C-105 With 075
as Interim Power Plant

Report # 7-0400-05
Sheet # 002-1 Issue 16
Prepared By: E. Burnett

WEIGHT CHANGES TO 7- 0400-05 ISSUE 15

WEIGHT CHANGES

Wing:

- 66.40	I/W F/S to M/S Structure - auxiliary spar redesign	- 69.70 lb.
	Fus. Side Rib re-estimate	+ 3.30 lb.
		- 66.40 lb.
- 17.02	I/W Joints - general amendments to current design now includes elevator jack mount.	
- 57.00	I/W L/Edge - flanged fairing L/E slot now part of main U/C fittings.	
+ 56.00	I/W Main U/C Structure - redesign - includes forged fairing portion of L/E slot.	
- 7.00	I/W Structure Aft R/S - elevator jack mountings integral with A/C C/L joints.	
0.00	O/W Spars - C.G. change only.	
- 91.42		

Front Fuselage (Fwd. Sta. 255*)

- 10.79	Lower Longerons - redesign L.H. Side	- 2.47 lb.
	redesign R.H. Side	- 8.32 lb.
		- 10.79 lb.
+ 0.39	Bulkhead 120* - misc. prod. drg. changes.	
+ 5.40	Cockpit Floor - estimate to prod. drgs. - extra stiffeners. .032 doubler added etc.	
+ 0.32	Cockpit Formers - 1st estimate to prod. drg. formers at Sta. 147, 207.93 and 214.43.	
- 7.82	Intake Ramp - Nacelle Shear Panel .04" was .051 Al.	- 7.18 lb.
	Changes to Frame Sta. 207.9	- 1.63 lb.
	Estimate Sta. 201.4 to prod. drgs.	+ 0.99 lb.
		- 7.82 lb.
+ 16.47	Shear Panel - redesigned .064 Al. was previously in CF, see CF Skin.	
+ 3.97		

Centre Fuselage - (Sta. 255* - 485*)

+ 15.34	Duct. C.F. - redesign aft. attachment ring	
- 6.00	Skin C.F. - delete allowance .051 Al. shear panel	
- 3.74	Structure below lower longeron - misc. changes doors and panels	
- 38.67	Fuselage Fuel Tank - Modify access doors	- 1.09 lb.
	Remove ties and fittings	- 37.58 lb.
		- 38.64 lb.
- 32.81	Formers C.F. - gauges reduced, stiffeners altered, cross ties, fittings etc. amended and added here (see also above)	
+ 0.79	Dorsal over Fuel Tank - seal added at lower edge.	
- 65.09		

(continued)

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Date: 8th July, 1955
Aircraft: C-105 With J75 Engines
in Interim Power Plant

Report # 7-0400-05
Sheet # 002-2 Issue 16
Prepared By: E. Burnett

WEIGHT CHANGES TO 7-0400-05 ISSUE 15

WEIGHT CHANGES

Aft. Fuselage (Sta. 485" Aft.)

-	6.93	Longitudinal beams - redesign, some are now forgings.	
+	25.64	Duct. D.B. - redesign fire seal	+ 4.03 lb.
		redesign Wing Attachment	+ 5.26 lb.
		redesign Joint at Sta. 485"	+ 3.85 lb.
		redesign 'I' beams etc.	+ 12.50 lb.
			+ 25.64 lb.
+	1.70	Dive Brake Accom. Structure - redesign limiter access panel	
+	20.41		

Undercarriage

-	4.79	Nose U/C Door and Fairing - prod. drgs. of Fairing - skin is now .04 was .051 Mg. - channels etc. .032 were .051 Al.	
-	4.79		

Equipment (Fixed and Removable)

+	3.38	Missile Pack Structure - redesign front and rear attachments	- 11.50 lb.
-	4.85	Air Conditioning - Boiler - manufacturers Wt.	+ 3.00 lb.
		Inc. in reduc. valves	+ 3.65 lb.
		Int. rain repellant ducting	- 4.85 lb.
-	1.47		

- 138.39 TOTAL WEIGHT CHANGE

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Date: 8th July, 1955

Aircraft: C-105 With J75 Engines
as Interim Power Plant

Report # 7-0400-05

Sheet # 003-1 Issue 16

Prepared By: J. Murphy

Checked By: E. Burnett

WEIGHT AND C. G. SUMMARY

REF No.	DESCRIPTION	WEIGHT lb.	H. ARM ins.	V. ARM ins.
	STRUCTURE	16,930.94	567.67	139.16
1000000	Wing	9,679.65	641.35	143.23
2000000	Fin and Rudder	911.57	756.76	211.28
3000000	Fuselage Structure Fwd. 255"	2,125.70	187.11	129.41
	255" to 485"	1,474.15	371.05	132.40
	Aft. 485"	2,739.87	645.52	112.00
4000000	UNDERCARRIAGE - Up Position	2,758.28	483.17	134.75
4010100	Main Undercarriage	1,776.00	539.49	140.00
4010200	Main U/C Doors & Fairings	272.64	540.50	151.50
4010300	Main U/C Hydraulics	279.84	535.01	137.75
4020100	Nose Wheel Undercarriage	284.34	165.18	100.04
4020200	Nose U/C Door & Fairing	26.51	163.25	89.24
4020300	Nose U/C Hydraulics	118.95	220.34	103.95
5000000	POWER PLANT AND SERVICES	13,776.78	657.47	119.11
5010000	Engines	12,453.00	666.84	117.85
5020000	Gear Box and Drive	150.00	606.00	94.66
5030000	Engine Controls	25.10	356.68	119.39
5040000	Pneumatic Starting System	70.00	610.00	94.75
5050000	Engine De-icing	65.75	564.53	114.37
5060000	Fire Extinguisher System	90.00	610.65	129.00
5070000	Engine Mountings and Brackets	221.11	645.29	132.67
5080000	Fuel System	701.82	536.24	143.92
6000000	FLYING CONTROLS GROUP	1,738.26	652.07	140.52
6010000	Mechanical Flying Controls	773.43	679.76	145.88
6030000	Flying Controls Electronics	108.00	222.33	131.43
6000000	Flying Controls Hydraulics	856.83	681.24	136.83
	EQUIPMENT (FIXED AND REMOVABLE)	6,711.57	310.97	114.66
7010000	Instruments	57.30	146.41	137.04
7010003	Probs	15.00	18.00	108.00
7030000	Oxygen System	46.12	220.36	138.15
7040000	Air Conditioning System	624.95	326.22	134.63
7050000	Hydraulics Main System	215.66	591.04	117.41
7060000	Armament Provisions	26.47	333.74	103.14
7080000	Brake Parachute	68.03	801.18	126.23
7090000	Electrical System	968.41	433.16	119.52
7100000	Low Pressure Pneumatics	17.07	230.70	135.79
7110000	Oil & Hydraulic Fluid Cooling	119.80	567.91	104.22
7120000	Intake De-icing	50.60	204.55	113.76
7000000	Radio & Radar Fixed, Power Supplies	921.10	220.05	111.00
7160000	Canopy Actuation	47.00	223.43	156.83
7170000	Cabin Consoles	20.85	177.01	125.38
7180000	Radar Door Actuation	10.00	268.00	95.00
7190000	Radome Anti-Icing	16.80	66.35	124.40
7200000	Cabin Installation	11.91	179.24	130.00

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Report # 7-0400-05
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WEIGHT AND C.G. SUMMARY

REF. No.	Description	WEIGHT lb	H. ARM ins.	V. ARM ins.	C.G. POSITION % M.A.C.
	Equipment (Fixed & Remov.) Cont'd				
7210000	Cockpit Pressure Sealing	20.00	186.01	130.00	
8010100	Ejector Seats	204.00	200.10	136.25	
8010200	Emergency Provision	16.95	166.01	130.65	
8020000	Radar Removable	1,259.70	141.75	114.53	
8000000	Radio Removable and I.F.F.	276.20	284.51	123.98	
8050100	Missile Pack Structure	676.17	385.26	95.61	
8050200	Missile Pack Mechanisms	410.48	373.88	102.86	
8050300	Missile Pack Hydraulics	293.00	366.29	101.00	
8050400	Missile Pack Electronics	318.00	389.15	101.22	
	AIRCRAFT WEIGHT EMPTY	41,915.83	554.02	128.41	
9000000	USEFUL LOAD	17,692.67	522.11	140.37	
9010000	Crew	430.00	194.00	136.50	
9020000	Oil	85.08	611.71	135.00	
9050000	Alcohol for Radome De-Icing	22.00	93.00	138.00	
9070000	Residual Fuel	219.80	536.70	135.07	
9090000	Fuel For Combat Mission	15,880.00	539.20	143.50	
9030000	Missiles Armament	1,042.40	399.12	95.60	
9040000	Oxygen Charge	13.39	259.69	159.91	
	Normal Combat Mission U/C Up		544.55	131.96	29.99
	U/C Down	59,608.50	546.08	129.88	30.41
	Half Combat Mission Fuel 1011 @ 7.85 lb/gal.	7,940.00	540.85	139.60	
	Combat Weight(Half Combat Mission Fuel) U/C Up	51,668.50	545.62	129.59	30.28
	U/C Down		547.38	127.19	30.76
	Operational Weight Empty U/C Up	43,728.50	546.49	127.77	30.52
	U/C Down		548.57	124.93	31.09
	Operational Weight Empty U/C Up (Less Missiles) U/C Down	42,686.10	550.09	128.56	31.51
			552.23	125.65	32.10
	Maximum Internal Fuel 2,544 gal. @ 7.85 lb/gal. Water (Air-Conditioning System)	19,970.00 125.00	538.88 268.00	144.33 95.00	
	A.U.W. Max. Internal Fuel U/C Up	63,823.50	543.56	132.89	29.71
	7 U/C Down		544.99	130.94	30.11
	Max. External Fuel, 539 gal. @ 7.85 lb/gal and Drop Tank	4,235.00	528.90	62.00	
	A.U.W. Max. Internal & External Fuel U/C Up	68,058.50	542.65	128.48	29.46
	U/C Down		543.99	126.66	29.83

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WEIGHTS C. OF G. TABULATIO (AIRFRAME)

PROJECT C-105

PREPARED BY _____

A.U.W. _____

LBS. _____

COMPONENT _____

DESCRIPTION		REFERENCE NO.	COMP. NO.	WEIGHT	H.
TOTAL WING GROUP		1000000			
UNCLASSIFIED					
NON CLASSIFIE					
OUTER WING		1010000			
14	SKIN O W	1010001	64	79800	68
14	STRINGERS AND POSTS O W	1010002	64	12520	69
14	SPARS O W	1010003	64	36736	70
14	RIBS O W	1010004	64	13334	69
14	AILERON CONTROL BOX O W	1010006	64	49653	76
3	WING JOINTS O W	1010007	64	11650	64
				203693	
AILERON		1020000			
17	AILERON STRUCTURE	1020001	74	33288	79
17	AILERON WARRY UP ITEMS	1020002		886	78
				34174	
20 ELEVATOR STRUCTURE		1030000	82	43567	75
				43567	
INNER WING		1040000			
12	MAIN U C STRUCTURE	1040001	62	23458	57
12	FRONT SPAR I W	1040002	62	18000	45
12	MAIN SPAR I W	1040003	62	15400	55
12	FWD CENTRE SPAR I W	1040004	62	5300	60
12	AFT CENTRE SPAR I W	1040005	62	4600	65
12	REAR SPAR	1040006	62	10000	70
12	I W STRUCTURE F S TO M S	1040007	62	89170	49
12	I W STRUCTURE M S TO R S	1040008	62	291280	62
12	STRUCTURE AFT OF REAR SPAR	1040009	62	32512	71
12	ELEVATOR CONTROL BOX I W	1040010	62	41853	72
15	WING FAIRINGS	1040011		9270	62
12	WING JOINTS I W	1040012	62	96458	64
				637301	
12 LEADING EDGE I W		1050000	63	29230	45
				29230	
14 LEADING EDGE O W		1060000	65	20000	65
				20000	

C. OF G. TABULATION

(AIRFRAME)

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Sheet # 004-1

W. LBS. COMPONENT DATE July 8/55 PAGE

ANCE NO.	COMP. NO.	WEIGHT	H. ARM	V. ARM	H. MOMENT	V. MOMENT
00000						
00000						
00001	64	79800	68900	13600	54982200	10852800
00002	64	12520	69820	13700	8741464	1715240
00003	64	36736	70360	13601	25847450	4996463
00004	64	13334	69340	13740	9245796	1832092
00006	64	49653	76962	13535	38213942	6720534
00007	64	11650	64460	13840	7509590	1612360
		203693			144540442	27729489
00000						
00001	74	33288	79128	13576	26340129	4519179
00002		88678	207	13079	692914	115880
		34174			27033043	4635059
00000	82	43567	75550	14260	32914869	6212654
		43567			32914869	6212654
00000						
00001	62	23458	57683	14216	13531276	3334789
00002	62	18000	45000	14400	81000000	2592000
00003	62	15400	55180	14700	8497720	2263800
00004	62	5300	60000	14600	3180000	773800
00005	62	4600	65400	14600	3008400	671600
00006	62	10000	70200	14500	7020000	1450000
00007	62	89170	49297	14470	43958135	12902899
00008	62	29128	80621	14700	181059648	42818160
00009	62	32512	71880	15000	23369626	4876800
00010	62	41853	72576	14316	30375233	5991675
00011		9270	62080	14920	5754816	1383084
00012	62	96458	64359	14570	62079404	14053931
		637301			389934260	93112538
00000	63	29230	45577	14500	13322157	4238350
		29230			13322157	4238350
00000	65	20000	65310	13550	13062000	2710000
		20000			13062000	2710000

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WEIGHTS C. OF G. TABULATION

(AIRFRAME)

PROJECT C-105

PREPARED BY

A.U.W.

LBS.

COMPONENT

UNCLASSIFIED		REFERENCE NO.	COMP. NO.	WEIGHT	H. ARM
TOTAL FUSELAGE GROUP		3000000			
FUSELAGE BASIC STRUCTURE		3010000			
3	RADOME	3010001	51	7700	4500
3	RADAR NOSE ACCESS DOORS	3010002	51	5538	9200
3	NOSE STRUCTURE FWD 120	3010003	51	9167	9250
3	SKIN F F	3010004	52	6741	19280
4	SKIN C F	3010005	54	13059	37050
5	SKIN D B	3010006	56	8379	53811
5	SKIN E B	3010007	58	12548	67401
3	STRINGERS S F F	3010008	52	1280	18569
4	STRINGERS C F	3010009	54	5173	36582
5	STRINGERS D B	3010010	56	500	50582
3	FORMERS F F	3010011	52	7717	18267
4	FORMERS C F	3010012	54	2631	537518
5	FORMERS D B	3010013	56	9732	53436
5	INTERMEDIATE FORMERS E B	3010014	58	16804	66253
5	HEAVY FORMERS E B	3010015	58	16999	66172
3	LONGERONS F F	3010016	52	5311	18347
5	LONGERONS D B	3010017	56	326	58858
5	LONGERONS E B	3010018	58	5696	65893
5	TOP LONGERONS E B	3010019	58	4352	66942
5	TOP WING LONGERONS D B	3010021	56	2265	53461
3	LONGERONS 255 485 F F	3010022	52	5325	295
3	LONGERONS 255 485 C F	3010023	54	16148	39609
4	DUCT BAY LONGERONS C F	3010024	54	451	47964
5	DUCT BAY LONGERONS D B	3010025	56	11012	52518
4	STR BELOW BOTTOM LONGERON	3010026	54	3727	27407
5	LONGITUDINAL BEAMS D B	3010027	56	5056	51633
4	RADAR ACCESS DOOR	3010028	54	1913	27485
5	MAIN FRAME AT STN 53877	3010029	56	5178	53874
5	DIVE BRAKE ACCOM STRUCTURE	3010030	56	3105	50369
3	COCKPIT DECKING	3010031	52	15409	18657
4	DUCT C F	3010032	54	3351	237256
5	DUCT D B	3010033	56	2966	754272
3	CANOPY ARCH F F	3010034	52	4667	21809
3	CANOPY ARCH C F	3010035	54	1150	26088
5	ACCESS PANEL STIFFNERS	3010036	56	3441	54597
3	NOSE U C SUPPORT STRUCTURE	3010037	52	3680	21188
3	CREW BULKHEADS	3010038	52	1053	120932
4	EQUIP BAY STRUCTURE	3010039	54	2964	28392
3	WINDSCREEN R N	3010040	51	1515	11356
3	WINDSCREEN F F	3010041	52	11524	14131
6	REMOV TAIL CONE	3010042	59	65500	79753
6	FAIRING UNDER RUDDER R F	3010043	59	1065	777519
4	DORSAL FAIRING AIR OUTLET	3010044	54	1589	29363
5	LIGHT HEAVY FORMERS E B	3010045	58	2200	66365
5	ENGINE ACCESS DOOR E B	3010046	58	8477	62696
4	SEAL IN MISSILE BAY	3010047	54	618	29400
4	JOINT STRAPS AND MISC	3010048	54	1553	33614
4	FLOOR C F	3010049	54	11498	37830

EIGHTS C. OF G. TABULATION

(AIRFRAME)

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Sheet # 004-3

A.U.W. LBS. COMPONENT DATE July 8/55 PAGE

REFERENCE NO.	COMP. NO.	WEIGHT	H. ARM	V. ARM	H. MOMENT	V. MOMENT
30000000						
30100000						
3010000151		7700	4500	11070	346500	852390
3010000251		5538	9200	11400	509496	631332
3010000351		9167	9250	11239	847948	1030279
3010000452		6741	19280	11535	1299665	777574
3010000554		13059	37050	14240	4838360	1859602
3010000656		8379	53811	10379	4508824	869656
3010000758		12548	67401	10786	8457477	1353427
3010000852		1280	18569	11800	237683	151040
3010000954		5173	36582	14162	1892387	732600
3010001056		5005	50582	10015	252910	50075
3010001152		7717	18267	11827	1409664	912690
3010001254		26315	37518	13297	9872862	3499106
3010001356		9732	53436	10211	5200392	993735
3010001458		16804	66253	10397	11133154	1747112
3010001558		16999	66172	10543	11248578	1792205
3010001652		5311	18347	8622	974409	457914
3010001756		3265	8858	9400	191877	30644
3010001858		5696	65893	9600	3753265	546816
3010001958		4352	66942	13915	2913316	605581
3010002156		2265	53461	113476	1210892	305231
3010002252		5325	2951	15250	13406	8083
3010002354		16148	39609	12590	6396061	2033033
3010002454		4514	79641	10700	216318	48257
3010002556		11012	52518	9834	5783282	1082920
3010002654		3727	27407	9139	1021459	340611
3010002756		5056	51633	9103	2610564	460248
3010002854		1913	27485	9178	525788	175575
3010002956		5178	53874	10454	2789596	541308
3010003056		3105	50369	9344	1563957	290131
3010003152		15409	18657	14850	2874857	2288237
3010003254		33512	37256	12919	12485231	4329415
3010003356		29667	54272	11794	16100874	3498926
3010003452		4667	21809	15993	1017826	746393
3010003554		1150	26088	16319	300012	187669
3010003656		3441	54597	8772	1878683	301845
3010003752		3680	21188	9513	779718	350078
3010003852		10531	20932	12363	2204349	1301948
3010003954		2964	28392	13512	841539	400496
3010004051		1515	11356	15014	172043	227462
3010004152		11524	14131	115014	1628456	1730213
3010004259		65500	79753	12500	52238215	8187500
3010004359		1065	77519	15600	825577	166140
3010004454		1589	29363	16491	466578	262042
3010004558		2200	66365	10700	1460030	235400
3010004658		8477	62696	8865	5314740	751486
3010004754		618	29400	11151	181692	68913
3010004854		1553	33614	13118	522025	203723
3010004954		11498	37830	11430	4349693	1314221

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WEIGHTS C. OF G. TABULATION (AIRFRAME)

PROJECT C-105 PREPARED BY _____ A.U.W. _____ LBS. COMPONENT _____

DESCRIPTION		REFERENCE NO.	COMP. NO.	WEIGHT	H. ARM
ENGINE GROUP		5000000			
41	ENGINES J 75	5010000		1245300	6668
				1245300	
49	GEAR BOX AND DRIVE	5020000		15000	6060
				15000	
	ENGINE CONTROLS	5030000			
47	ENGINE CONTROLS F F	5030001	52	11611	1611
47	ENGINE CONTROLS C F	5030002	54	3153	0279
47	ENGINE CONTROLS D B	5030003	56	3365	0693
47	ENGINE CONTROLS E B	5030004	58	6986	3397
				2510	
43	PNEUMATIC STARTING SYSTEM	5040000		7000	6100
				7000	
66	ENGINE ANTIICING	5050000		6575	5645
				6575	
	FIRE EXT SYSTEM	5060000			
64	FIRE EXT SYSTEM D B	5060001		5485	5739
64	FIRE EXT SYSTEM E B	5060002		4452	6171
132	ENGINE FIRE EXT FLUID	5060003		4000	6085
				9000	
42	ENGINE HTGS AND BRACKETS	5070000		2211	1645
				2211	
	FUEL SYSTEM	5080000			
54	FUEL SYSTEM C F	5080001	54	1049	4406
54	FUEL SYSTEM D B	5080002	56	8712	5371
54	FUEL SYSTEM E B	5080003	58	4547	6166
54	FUEL SYSTEM I W	5080004	62	4642	9557
				70182	

WEIGHTS C. OF G. TABULATION (AIRFRAME)

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COMPONENT.

UNCLASSIFIED		REFERENCE NO.	COMP. NO.	WEIGHT	H. ARM
FLYING CONTROLS GROUP		6000000			
56	MECHANICAL CONTROLS	6010000			
56	MECHANICAL CONTROLS F F	6010001	52	7735	1537
56	MECHANICAL CONTROLS C F	6010002	54	8093	3627
56	MECHANICAL CONTROLS D B	6010003	56	7595	533
56	MECHANICAL CONTROLS F IN	6010004	83	8344	7872
56	MECHANICAL CONTROLS I W	6010005	62	3674	4719
56	MECHANICAL CONTROLS O W	6010006	64	2295	2770
				77343	
FLYING CONTROLS HYDRAULICS		6020000			
57	FLYING CONT HYDRAULICS D B	6020001	56	9925	5633
57	FLYING CONT HYDRAULICS E B	6020002	58	30040	6442
				31032	
AUTO PILOT AND TIE IN		6030000			
61	AUTO PILOT AND TIE IN R N	6030001	51	5700	995
61	AUTO PILOT AND TIE IN F F	6030002	52	2200	2350
61	AUTO PILOT AND TIE IN C F	6030003	54	8002	560
61	AUTO PILOT AND TIE IN D B	6030004	56	2100	5293
				10800	
57	ELEVATOR HYDRAULICS	6050000	62	21743	7017
				21743	
AILERONS HYDRAULICS		6060000			
57	AILERON HYDRAULICS E B	6060001	58	8866	936
57	AILERONS HYDRAULICS I W	6060002	62	3885	7076
57	AILERONS HYDRAULICS O W	6060003	64	15229	7401
				20000	
57	RUDDER HYDRAULICS	6070000	83	7608	7655
				7608	
57	DIVE BRAKE HYDRAULICS	6080000	56	5300	5172
				5300	

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WEIGHTS C. OF G. TABULATION (AIRFRAME)

PROJECT **C-105**

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COMPONENT

DESCRIPTION		REFERENCE NO.	COMP. NO.	WEIGHT	H. ARM
JUNCTION BOXES		7090100			
60	JUNCTION BOXES	7090101	51	500	8500
60	JUNCTION BOXES F F	7090102	52	3550	199271
60	JUNCTION BOXES C F	7090103	54	1200	350001
60	JUNCTION BOXES A I	7090104	55	300	591001
60	JUNCTION BOXES E B	7090105	58	400	680001
60	JUNCTION BOXES I W	7090106	62	300	570001
				6250	
ALTERNATOR SYSTEM		7090200			
60	ALTERNATOR SYSTEM F F	7090201	52	7083	158691
60	ALTERNATOR SYSTEM C F	7090202	54	2789	369381
60	ALTERNATOR SYSTEM D B	7090203	56	25428	508431
60	ALTERNATOR SYSTEM ENGINE	7090204		28800	555881
				64100	
GENERAL ELECTRICAL CIRCUIT		7090300			
60	GEN ELECT CIRCUITS R N	7090301	51	310	111771
60	GEN ELECT CIRCUITS F F	7090302	52	10632	164881
60	GEN ELECT CIRCUITS C F	7090303	54	6754	341951
60	GEN ELECT CIRCUITS D B	7090304	56	3720	515811
60	GEN ELECT CIRCUITS E B	7090305	58	576	647081
60	GEN ELECT CIRCUITS R F	7090306	59	523	777681
60	GEN ELECT CIRCUITS I W	7090307	62	3476	542211
60	GEN ELECT CIRCUITS O W	7090308	64	380	737501
60	GEN ELECT CIRCUITS F IN	7090309	83	120	877002
				26491	
L P PNEUMATICS		7100000			
58	L P PNEUMATICS F F	7100001	52	1084	206391
58	L P PNEUMATICS C F	7100002	54	623	273001
				1707	
OIL AND HYD FLD COOLING		7110000			
57	OIL AND HYD FLD COOLING DB	7110001	56	9686	556541
57	OIL AND HYD FLD COOLING EB	7110002	58	2294	615911
				11980	
INTAKE DEICING		7120000	52	5060	204551
				5060	
RADIO AND RADAR FIXED		7140000			
61	RADIO AND RADAR FIXED R N	7140001	51	22500	900001
61	RADIO AND RADAR FIXED F F	7140002	52	17010	200421

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COMPONENT

DESCRIPTION		REFERENCE NO.	COMP. NO.	WEIGHT	H. ARM
UNCLASSIFIED					
61	RADIO AND RADAR FIXED C F	7140000354		11470	29461
61	RADIO AND RADAR FIXED D B	7140000456		5720	52932
61	RADIO AND RADAR FIXED F IN	7140000583		2007	0481
61	RADIO AND RADAR FIXED I W	7140000662		5107	0000
				57410	
RADAR POWER SUPPLIES		71500000			
61	RADAR POWER SUPPLIES R N	7150000151		7700	9012
61	RADAR POWER SUPPLIES C F	7150000254		27000	26800
				34700	
60	CANOPY ACTUATION	7160000052		4700	22341
				4700	
3	CABIN CONSOLES	7170000052		2085	17701
				2085	
60	RADAR DOOR ACTUATION	7180000054		1000	26800
				1000	
65	RADOME ANTIICING	7190000051		1680	6635
				1680	
69	CABIN INSULATION	7200000052		1191	17924
				1191	
3	COCKPIT PRESSURE SEALING	7210000052		2000	18601
				2000	

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COMPONENT

DESCRIPTION		REFERENCE NO.		COMP. NO.	WEIGHT		H. ARM	
REMOVABLE COMPONENT GROUP		80000000						
69	EJECTOR SEATS	8010100	52		20400	200	10	
					20400			
107	EMERGENCY PROVISIONS	8010201	52		1145	163	02	
133	SIGNAL PISTOL CARTRIDGES	8010202	52		200	156	00	
132	HAND FIRE EXT FLUID	8010203	52		350	181	50	
					1695			
RADAR REMOV GROUP		80200000						
	RADAR REMOVABLE	8020100						
61	RADAR REMOVABLE R N	8020101	51		81896	789	71	
61	RADAR REMOVABLE F F	8020102	52		9614	181	73	
61	RADAR REMOVABLE C F	8020103	54		730	268	00	
61	RADAR REMOVABLE D B	8020104	56		950	539	50	
					93190			
	FLARE OUT ALTIMETER	8020200						
61	FLARE OUT ALTIMETER FF	8020201	52		50	150	10	
61	FLARE OUT ALTIMETER CF	8020202	54		1500	268	00	
					1550			
61	ELECT MISSILE CONTROL C F	8020400	54		17300	273	66	
					17300			
61	DATA LINK	8020500	54		6800	268	00	
					6800			
61	OMNI DME	8020600	54		7000	268	00	
					7000			
61	J2 COMPASS O W	8020700	64		130	704	00	
					130			
RADIO REMOV GROUP		80300000						

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(AIRFRAME)

PROJECT C-105 PREPARED BY _____ A.U.W. _____ LBS. COMPONENT _____

DESCRIPTION		REFERENCE NO.	COMP. NO.	WEIGHT	H. ARM
OPERATIONAL LOAD		9000000			
99 CREW MEMBERS		9010000	52	43000	19400
				43000	
ENGINE OIL		9020000			
120	ENGINE OIL USABLE	9020001		54146	1171
75	ENGINE OIL TRAPPED	9020002		30946	1171
				8508	
129 MISSILES GAR 1A		9030000	54	104240	39912
				104240	
OXYGEN CHARGE		9040000			
128	OXYGEN CHARGE F F	9040001	52		7220493
128	OXYGEN CHARGE C F	9040002	54	12672	6280
				1339	
125 ALCOHOL FOR RADOME DEICING		9050000	51	2200	9300
				2200	
RESIDUAL FUEL		9070000			
74	RESIDUAL FUEL C F	9070001	54	47103	9416
74	RESIDUAL FUEL I W	9070002	62	17270	57558
				21980	

