

C-105 With J75 Report # 7-0400-05
Production Engines ISSUE 19

WEIGHT SUMMARY & C.G. POSITION

Mr. O. Michaelson Oct. 1/55

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JAN 07 1993
Dec. 7, 1992

Report no.: QCX - AVRO - CF105- R-7-0400-05-155-19

has been downgraded to : _____

de-classified

by (Name): Michel W. Drapeau

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

Date: Dec. 7, 1992

R. Auger
Signature

Classification cancelled / changed to: UNCLASSIFIED

By authority of: DRDA 7/DARFT 5-8/DAS Eng 6-4-5

Date: 5 Nov 1992

Signature: B. Aubrey

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

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Date: 1st, October 1955
Aircraft: C-105 With J75 Engines
as Interim Power Plant

Report # 7-0400-05
Sheet # 001-1 Issue 19
Prepared By: K. Griffin
Checked By: E. Burnett

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 September 30th, 1955. All Weight and C.G. changes are relative to Issue 18.

GENERAL:-

- (a) As in Issue 18 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 issues subsequent to 15, the extended leading edge is recorded here.

1. STRUCTURE

	<u>WEIGHT (lb)</u>
(a) <u>Wing:</u>	
I/W Joints - alterations to end closing Centre Box	+ 3
Weight Change Increase	+ 3
	<u>Ref. 002-1</u>
(b) <u>Fin and Rudder:</u>	
Negligible Weight Change	0
	<u>Ref. 002-1</u>
(c) <u>Fuselage to Sta. 255"</u>	
Radome - added Mg. Mounting ring and refinement of estimate	+ 23
Nose Structure - estimate to preliminary scheme drawings	+ 16
Top Longeron - redesign to pressed plate construction previous forgings impractical	+ 9
Formers - Altered to accommodate above longeron	+ 11
Intake Ramp - various amendments	+ 4
Weight Change Increase	+ 63
	<u>Ref. 002-1</u>
(d) <u>Fuselage 255" - 485"</u>	
Formers - miscellaneous changes	+ 3
Armament Provisions - previously considered equipment	+ 30
Weight Change Increase	+ 33
	<u>Ref. 002-1</u>

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Date: 1st, October 1955
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Report # 7-0400-05
Sheet # 001-2 Issue 19
Prepared By: K. Griffin
Checked By: E. Burnett

INTRODUCTION

<u>1. STRUCTURE (Continued)</u>	<u>WEIGHT (lb)</u>
(e) <u>Fuselage 485⁰⁰ Aft.</u>	
Duct D.B. - deletion of gill operating tube and redesign of gills	- 17
Formers D.B. - Heat Exchanger Duct Mounting introduced	+ 10
General amendments due to longeron redesign etc.	+ 16
Longerons D.B. - Redesign of both longerons, aft splice now at forged former 591.65	- 18
Top Longerons E.B. - Alteration to cross section, bearing plates for Wing attach. now removed	- 11
Miscellaneous minor changes	0
	<hr/>
Weight Change Decrease	- 20
	<hr/>
<u>TOTAL STRUCTURE WEIGHT INCREASE</u>	<u>+ 79</u>
<u>2. LANDING GEAR</u>	
a) Nose Undercarriage - Jarry estimate increase	+ 10
	<hr/>
	<u>Ref. 002-2</u>
<u>TOTAL LANDING GEAR INCREASE</u>	<u>+ 10</u>
<u>3. POWER PLANT & SERVICES</u>	
a) Fuel System - complete revision of estimate see details	- 56
b) Fire Extinguishing System - bottles moved aft - refined estimate	+ 14
c) Fire Extinguisher Fluid - now Operational Load ref. C.A.P. 479	- 40
	<hr/>
	<u>Ref. 002-2</u>
<u>TOTAL POWER PLANT DECREASE</u>	<u>- 82</u>
<u>4. FLYING CONTROLS</u>	
Rudder Hydraulics - refined estimate - Jarry Weight for Jack now available	- 26
	<hr/>
	<u>Ref. 002-3</u>
<u>TOTAL FLYING CONTROLS DECREASE</u>	<u>- 26</u>

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Sheet # 001-3
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Checked By: E. Burnett

INTRODUCTION

<u>5. EQUIPMENT</u>	<u>WEIGHT (lb.)</u>
Armament Provisions - now considered as structure see Centre Fuselage Group	- 31
<u>TOTAL EQUIPMENT DECREASE</u>	<u>- 31</u>
<u>6. OPERATIONAL LOAD</u>	
Fire Extinguisher Fluid - included here in accordance with C.A.P. 479	+ 25
<u>TOTAL WEIGHT INCREASE OF OPERATIONAL LOAD</u>	<u>+ 25</u>

SUMMARY

Weight Change - Aircraft Weight Empty

Structure	+ 79 lb.
Landing Gear	+ 10 lb.
Power Plant	- 82 lb.
Flying Controls	- 26 lb.
Equipment	- 31 lb.
	- 50 lb.

Weight Change - Operational Load Less Fuel

Fire Extinguishing Fluid + 25 lb.

Weight Change - Operational Weight Empty - (A/C less Fuel)

<u>Issue 18</u>	<u>Issue 19</u>	=	- 25 lb.
43,685	43,660		

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Report # 7-0400-05
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Prepared By: K. Griffin
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WEIGHT CHANGES TO 7-0400-05 ISSUE 18

WEIGHT CHANGES

Wings:

+ 2.73 I/W Joints - Alterations to end closing Wing Centre Box.

+ 2.73

Fin and Rudder:

+ 0.45 Rudder - 1st estimate to production drawings

+ 0.45

Front Fuselage (Fwd. Sta. 255")

+ 22.68 Radome - Mg. Mounting Ring added + 14.52
General refinement of estimate + 8.16
+ 22.68

+ 6.05 Radar Nose Structure - 1st estimate to preliminary
scheme drawings

+ 10.12 Radar Nose Access Doors - 1st estimate to pre-
liminary scheme drawings

+ 9.30 Top Longerons - complete redesign - previous forgings
impractical now of pressed plate.

+ 11.27 Formers - General amendments of production drawings
including addition of longeron attach. angles
and redesign. of Former 228 for Top Longeron.

+ 4.39 Intake Ramp - Top Outer Longeron - estimate to pro-
duction drawings + 0.60
Frame 237.5 - amends to fuselage tie-in
etc. - production drawing estimate + 3.79
+ 4.39

+ 63.81

Centre Fuselage (Sta. 255" - 485")

+ 2.68 Formers - 1st estimate to production drawings of former
292, includes some fittings previously schemed
as armament provision.

+ 30.32 Armament Provisions - these were previously considered as
as equip., but since only basic structure is
involved they will now be considered here,
estimate now made to production drawings for
tube and link assys. (see also Former 292.)

+ 33.00

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WEIGHT CHANGES TO 7-0400-05 Issue 18

WEIGHT CHANGES

Aft. Fuselage (Sta. 485⁰⁰ Aft.)

+ 0.54	Dive Brake Accommodations - Minor amendments to floor	
- 18.05	Longerons D.B. - redesign Upper Longeron	- 3.88
	redesign Lower Longeron	- 6.63
	Alterations to Joint Sta. 485	+ 2.96
	Aft splice now with E.B. former 591.65 ⁰⁰	- 7.00
	Former Joints now with formers	- 3.50
		<u>- 18.05</u>
+ 26.49	Formers D.B. - Mounting Heat Exchanger Duct added	+ 10.24
	General alterations - long splices incl.	+ 16.25
		<u>+ 26.49</u>
- 0.48	Longitudinal Beams D.B. - redesign aft beams, weight allowance was previously made	
- 0.62	Skin D.B. - 1st estimate to scheme drawings	
- 16.51	Duct D.B. - Removal rubber operating tube	- 13.76
	Redesign gill assys.	- 2.75
		<u>- 16.51</u>
- 11.47	Top Longerons E.B. - alteration to cross sectional area of Longeron, removal bearing plates at heavy formers which are now forged.	
		<u>- 20.10</u>

Undercarriage:

+ 9.66 Nose Undercarriage - Jarry estimate increase to 294 lb no detailed breakdown yet available.

Power Plant & Services:

- 56.47	Fuel System - Bag tank decrease in gauge	- 18.00
	Wing piping - gauge reduced etc.	- 18.02
	Condensation drains added	+ 4.00
	Proportioner Unit alterations	- 3.70
	Fuel booster pump	- 9.00
	Miscellaneous changes	- 11.75
		<u>- 56.47</u>
+ 14.27	Fire Extinguisher System - bottles moved aft - also refinement of estimate	
- 40.00	Fire Extinguisher Fluid - now considered as Operational Load in accordance with C.A.P. 479.	
		<u>- 82.20</u>

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WEIGHT CHANGES TO 7-0400-05 ISSUE 18

WEIGHT CHANGES

Flying Controls Group:

-	25.96	Rudder Hydraulics - Too much weight previously allowed	
		for jack (Jarry estimate now available)	- 20.00
		Miscellaneous changes to system	- <u>5.96</u>
			- 25.96

Equipment - Fixed and Removable:

	0.00	Radar Removable - more realistic C.G. for items in Radar Nose	
-	31.34	Armament Provisions - now considered as structure	
		see Centre Fuselage Group.	

- 31.34

Operational Load:

+	25.00	Fire Extinguishers Fluid - see also Power Plant Services Group	
		new weight of 12½ lb/bottle; included here	
		in accordance with C.A.P. 497	

+ 25.00

- 24.95 TOTAL WEIGHT CHANGE

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Date: 1st, October, 1955
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Report # 7-0400-05
Sheet # 003-1 Issue 19
Prepared By: J. Murphy
Checked By: E. Burnett

WEIGHT AND C. G. SUMMARY

<u>REF.</u> <u>No.</u>	<u>DESCRIPTION</u>	<u>WEIGHT</u> <u>lb.</u>	<u>H. ARM</u> <u>ins.</u>	<u>V. ARM</u> <u>ins.</u>
	STRUCTURE	16,872.08	564.19	138.76
1000000	Wing	9,532.11	642.18	142.58
2000000	Fin and Rudder	912.02	756.74	211.22
3000000	Fuselage Structure Fwd. 255" ^m	2,205.90	182.35	129.70
	255" to 485" ^m	1,529.81	370.33	131.74
	Aft. 485" ^m	2,692.24	645.83	112.08
4000000	UNDERCARRIAGE - Up Position	2,853.63	484.40	133.98
4010100	Main Undercarriage	1,847.60	539.88	141.00
4010200	Main U/C Doors and Fairings	287.32	539.21	136.40
4010300	Main U/C Hydraulics	279.84	535.01	137.75
4020100	Nose Wheel Undercarriage	294.00	169.05	100.04
4020200	Nose U/C Doors & Fairings	25.92	163.71	89.22
4020300	Nose U/C Hydraulics	118.95	220.34	103.95
5000000	POWER PLANT & SERVICES	13,888.58	654.07	118.73
5010000	Engines J75	12,647.00	662.35	117.82
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 Extinguishing System	64.27	700.07	123.00
5070000	Engine Mountings & Brackets	221.11	645.29	132.67
5080000	Fuel System	645.35	526.86	139.92
6000000	FLYING CONTROLS GROUP	1,712.30	650.20	139.42
6010000	Mechanical Flying Controls	773.43	679.76	145.88
6030000	Flying Controls Electronics	108.00	222.33	131.43
6000000	Flying Controls Hydraulics	830.87	678.31	134.44
	EQUIPMENT (FIXED AND REMOVABLE)	6,495.41	303.87	114.77
7010000	Instruments	57.30	146.41	137.04
7010003	Probe	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	Hydraulic Main System	215.66	591.04	117.41
7080000	Brake Parachute	68.03	794.01	126.23
7090000	Electrical System	779.19	402.81	121.36
7100000	Low Pressure Pneumatics	16.60	217.17	133.41
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 Insulation	11.91	179.24	130.00
7210000	Cockpit Pressure Sealing	20.00	186.01	130.00

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WEIGHT AND C.G. SUMMARY

<u>REF. NO.</u>	<u>DESCRIPTION</u>	<u>WEIGHT lb.</u>	<u>H. ARM ins.</u>	<u>V. ARM ins.</u>	<u>C.G. POSITION % S.M.C.</u>
	Equipment (Fixed & Remov.) Cont'd.				
8010100	Ejector Seats	204.00	200.10	136.25	
8010200	Emergency Provision	16.95	166.01	130.65	
8020000	Radar Removable	1,259.70	143.20	114.53	
8000000	Radio Removable & 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	41,822.00	551.68	128.08	
9000000	USEFUL LOAD	17,135.67	521.88	140.24	
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	
9060000	Engine Fire Extinguisher Fluid	25.00	730.00	129.00	
9070000	Residual Fuel	219.80	536.70	135.07	
9090000	Fuel For Combat Mission	15,298.00	539.25	143.50	
9030000	Missiles Armament	1,042.40	399.12	95.60	
9040000	Oxygen Charge	13.39	259.69	159.91	
	U/C Up Normal Combat Mission	58,957.67	543.02	131.61	29.56
	U/C Down		544.59	129.44	30.00
	Half Combat Mission Fuel 981 @ 7.8 lb./gal.	7,649.00	540.95	139.60	
	U/C Up Combat Weight (Half Combat Mission Fuel)	51,308.67	543.83	129.26	29.79
	U/C Down		545.64	126.76	30.29
	U/C Up Operational Weight Empty	43,659.67	544.34	127.45	29.93
	U/C Down		546.46	124.52	30.51
	U/C Up Operational Weight Empty (less Missiles)	42,617.27	547.89	128.23	30.91
	U/C Down		550.07	125.23	31.51
	Maximum Internal Fuel 2,544 gal. @ 7.8 lb/gal. Water (Air-Conditioning System)	19,843.00 125.00	538.88 268.00	144.33 95.00	
	U/C Up A.U.W. Max. Internal Fuel	63,627.67	542.09	132.65	29.31
	U/C Down		543.55	130.64	29.71
	Max. External Fuel, 500 gal. @ 7.8 lb/gal. and Drop Tank	4,210.00	528.88	62.00	
	U/C Up A.U.W. Max. Internal & External Fuel	67,837.67	541.27	128.27	29.08
	U/C Down		542.64	126.38	29.46

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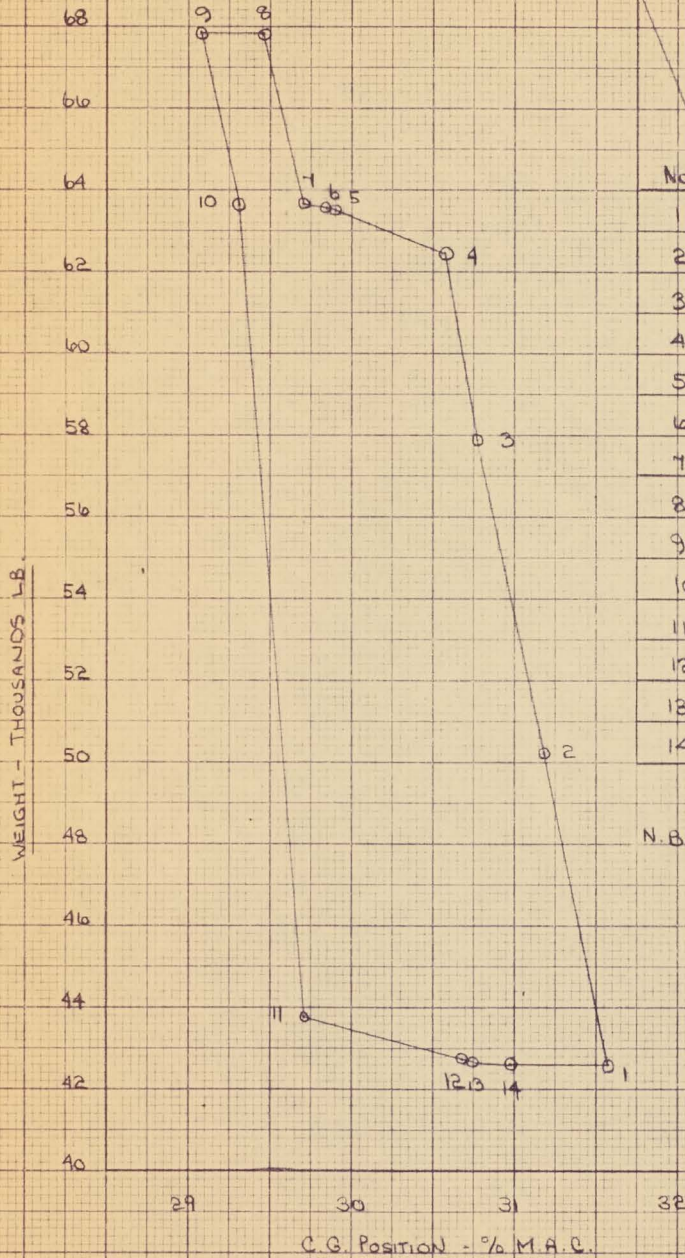
REPORT No: 7-0400-05 ISSUE 19

BY: Kathleen Griffin

DATE: SEPT 30TH 1955

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C105 A/c C.G. ENVELOPE
FOR A/c FLIGHT CONDITIONS
WITH J75 A25 ENGINES



No.	CONDITION	COMBAT MISSION FUEL	NORMAL MISSION FUEL	MAX INTERNAL FUEL	EXT. FUEL TANKS	MISSILES	DEICING FLUID	NATER	1/2 UP	1/2 DOWN
1										*
2	*									*
3		*								*
4				*						*
5				*		*				*
6				*		*	*			*
7				*		*	*	*		*
8				*	*	*	*	*	*	*
9				*	*	*	*	*	*	*
10				*		*	*	*	*	*
11					*	*	*	*	*	*
12							*	*	*	*
13							*	*	*	*
14									*	*

N.B. IN ORDER TO BRING POINT ① TO THE AFT LIMIT = 31% MAC 197 LB BALLAST MUST BE ADDED AT STA 120INS.

10X10 TO THE 1/2 INCH
KUTZEL & EIDER CO.
MILWAUKEE, WISCONSIN, U.S.A.

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S E C R E T

C-105 MK

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Report # 7-0425-20 Issue 10

Sheet # 1

Prepared By: K. Griffin

Checked By: E. Burnett

C. G. ENVELOPES WITH J75 A25 & PS 13 ENGINES

FITTED & FULL MX 1179 RADAR

Radio and Radar allowance carried in 7-0400-05 Issue 19 is as outlined on Sheet 001-1 of 7-0400-05 Issue 14 (2,908 lb.)

The effect of installing different engines is shown on the attached C.G. Envelopes.

Curve (1) - J75 A25 Engine (Engine C.G. at Sta. 664.26 ins.)
(6,175 lb. each)

Curve (2) - PS 13 Engine (Engine C.G. at Sta. 672.69 ins.)
(4,500 lb. each)

N.B. The assumption is made that the basic aircraft remains unaltered irrespective of engine installation.



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REPORT: 7-0400-20 ISSUE 10

BY: Kathleen Griffin

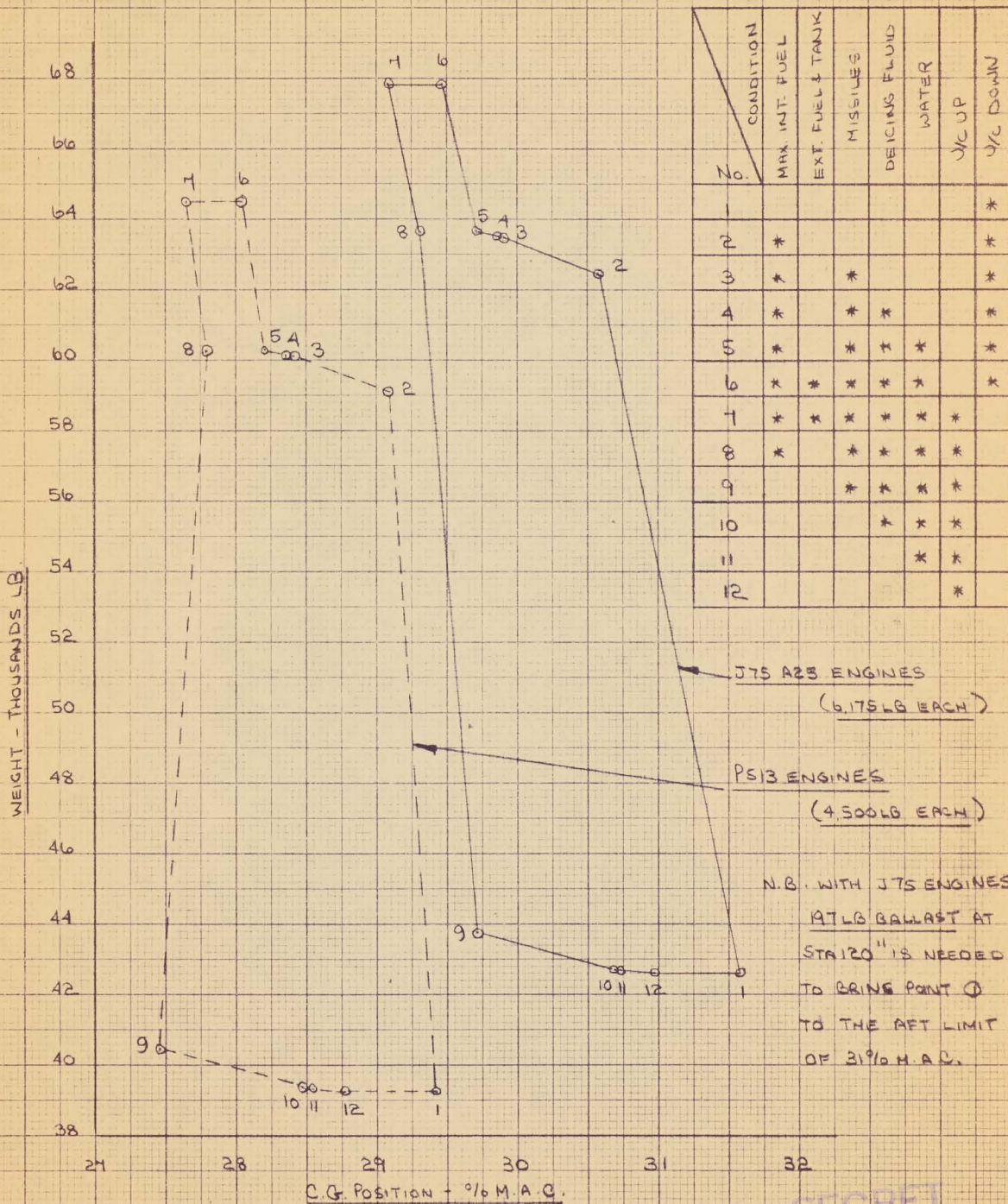
DATE: Sept 29th 1955

C105 A/C C.G. ENVELOPES

WITH MX1179 RADAR INSTALLED

COMPARISON OF EFFECTS OF POSSIBLE ENGINE INSTALLATIONS

(BASED ON 7-0400-05 ISSUE 19)



CONDITION No.	MAX INT. FUEL	EXT. FUEL & TANK	MISSILES	DEICING FLUID	WATER	1/2 UP	1/2 DOWN
1							*
2	*						*
3	*		*				*
4	*		*	*			*
5	*		*	*	*		*
6	*	*	*	*	*		*
7	*	*	*	*	*	*	
8	*		*	*	*	*	
9			*	*	*	*	
10				*	*	*	
11					*	*	
12						*	

359-12

10 X 10 TO THE 1/2 INCH
 KEUFFEL & ESSER CO.



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AVRO AIRCRAFT LTD.
MALTON, ONT.

WEIGHT AND C. OF G BY FUNCTIONAL COMPONENT

PROJECT C-105

DESCRIPTION	REFERENCE NO.	COMP. NO.	WEIGHT	H.
24 FIN	201000083		796.2074	
			796.20	
25 RUDDER	202000084		115.8281	
			115.82	

PROJECT C-105

DESCRIPTION		REFERENCE NO.	COMP. NO.	WEIGHT	H
TOTAL FUSELAGE GROUP		3000000			
FUSELAGE BASIC STRUCTURE		3010000			
3	RADOME	3010001	51	14268	4
3	RADAR NOSE ACCESS DOORS	3010002	51	6550	9
3	NOSE STRUCTURE FWD 120	3010003	51	9772	9
4	SKIN F F	3010004	52	6741	19
4	SKIN C F	3010005	54	13059	37
5	SKIN D B	3010006	56	8317	53
5	SKIN E B	3010007	58	12548	67
3	STRINGERS F F	3010008	52	1280	18
4	STRINGERS C F	3010009	54	5173	36
5	STRINGERS D B	3010010	56	5005	50
3	FORMERS F F	3010011	52	8844	18
4	FORMERS C F	3010012	54	27278	37
5	FORMERS D B	3010013	56	12381	53
5	INTERMEDIATE FORMERS E B	3010014	58	16804	66
5	HEAVY FORMERS E B	3010015	58	16999	66
3	LONGERONS F F	3010016	52	5311	18
5	LONGERONS D B	3010017	56	32658	58
5	LONGERONS E B	3010018	58	5696	65
5	TOP LONGERONS E B	3010019	58	3205	66
5	TOP WING LONGERONS D B	3010021	56	1890	53
3	LONGERONS 255 485 F F	3010022	52		53
3	LONGERONS 255 485 C F	3010023	54	16148	39
4	DUCT BAY LONGERONS C F	3010024	56	4654	58
5	DUCT BAY LONGERONS D B	3010025	56	9193	58
4	STR BELOW BOTTOM LONGERON	3010026	54	3961	27
5	LONGITUDINAL BEAMS D B	3010027	56	5008	51
4	RADAR ACCESS DOOR	3010028	54	1913	27
5	MAIN FRAME AT STN 53877	3010029	56	5178	53
5	DIVE BRAKE ACCOM STRUCTURE	3010030	56	2894	50
3	COCKPIT DECKING	3010031	52	16339	19
4	DUCT C F	3010032	54	33512	37
5	DUCT D B	3010033	56	27639	54
3	CANOPY ARCH F F	3010034	52	5806	21
3	CANOPY ARCH C F	3010035	52	1598	26
5	ACCESS PANEL STIFFNERS	3010036	56	1948	53
3	NOSE U C SUPPORT STRUCTURE	3010037	52	3680	21
3	CREW BULKHEADS	3010038	52	10531	20
4	EQUIP BAY STRUCTURE	3010039	54	3683	28
3	WINDSCREEN R N	3010040	51	1515	11
3	WINDSCREEN F F	3010041	52	11524	14
6	REMOV TAIL CONE	3010042	59	65500	79
6	FAIRING UNDER RUDDER R F	3010043	59	1065	77
4	DORSAL FAIRING AIR OUTLET	3010044	54	2110	29
5	LIGHT HEAVY FORMERS E B	3010045	58	2200	66
5	ENGINE ACCESS DOOR E B	3010046	58	8477	62
4	SEAL IN MISSILE BAY	3010047	54	618	29
4	JOINT STRAPS AND MISC	3010048	54	1553	33
4	FLOOR C F	3010049	54	11498	37

AVRO AIRCRAFT LTD.

MALTON, ONT.

WEIGHT AND C. OF G BY FUNCTIONAL
COMPON

PROJECT C-105

DESCRIPTION		REFERENCE NO.	COMP. NO.	WEIGHT
3	BULKHEAD AT STN 120	3010050	52	25641
3	BULKHEAD AT STN 255	3010051	52	98642
4	BULKHEAD AT STN 485 C F	3010052	54	2074
4	BULKHEAD AT STN 485 D B	3010053	56	9606
5	ENGINE TUNNEL E B	3010054	58	381186
4	INTEGRAL FUS FUEL TANK	3010055	54	211543
3	COCKPIT FLOOR	3010056	52	52651
3	SLING AND JACK FITTINGS FF	3010057	52	2142
4	SLING AND JACK FITTINGS CF	3010058	54	9572
5	AFTBURNER COOLING DUCT D B	3010059	56	9615
5	AFTBURNER COOLING DUCT E B	3010060	58	11746
4	DORSAL OVER FUEL TANK	3010061	54	55744
4	DORSAL HOT AIR DEFLECTOR	3010062	54	15513
3	SHEAR PANEL BELOW NAV ARCH	3010063	52	17082
4	ARMAMENT PROVISIONS	3010064	54	30323
				534500
9	DIVE BRAKES	3020000	72	111325
				11132
	AIR INTAKES	3030000		
503	FORWARD NACELLE	3030100	52	21622
				2162
3	LIP AND RAMP	3030200	55	614042
				61404
	PILOTS AND NAVIG CANOPIES	3040000		
3	PILOTS CANOPY	3040100	53	220711
				22071
3	NAVIGATORS CANOPY	3040200	53	115262
				11526

AVRO AIRCRAFT LTD.
MALTON, ONT.

WEIGHT AND C. OF G BY FUNCTIONAL COMPONENT

PROJECT C-105

DESCRIPTION		REFERENCE NO.	COMP. NO.	WEIGHT
UNDERCARRIAGE UP POSITION		4000000		
MAIN UNDERCARRIAGE GROUP		4010000		
35	MAIN UNDERCARRIAGE	401010092		1847605 184760
12	MAIN U C DOORS FAIRINGS	401020092		287335 28732
	MAIN U C HYDRAULICS	4010300		
57	MAIN U C HYDRAULICS F F	401030152		7781
57	MAIN U C HYDRAULICS C F	401030254		29438
57	MAIN U C HYDRAULICS I W	401030362		269125 27984
NOSE UNDERCARRIAGE GROUP		4020000		
36	NOSE WHEEL UNDERCARRIAGE	402010091		2940010 29400
3	NOSE U C DOOR AND FAIRING	402020091		259210 2592
	NOSE U C HYDRAULICS	4020300		
57	NOSE U C HYDRAULICS F F	402030152		1027620
57	NOSE U C HYDRAULICS C F	402030254		161932 11895

PROJECT G-105

DESCRIPTION		REFERENCE NO.	COMP. NO.	WEIGHT
FIXED EQUIPMENT GROUP		7000000		
INSTRUMENTS		7010000		
59	INSTRUMENTS R N	7010001	51	400
59	INSTRUMENTS F F	7010002	52	51301
106	NAVIG TABLE AND STOWAGE	7010004	52	2002
				5730
OXYGEN SYSTEM		7030000		
63	OXYGEN SYSTEM F F	7030001	52	29051
63	OXYGEN SYSTEM C F	7030002	54	17072
				4612
AIR CONDITIONING SYSTEM		7040000		
65	AIR CONDITIONING R N	7040001	51	442
65	AIR CONDITIONING F F	7040002	52	91082
65	AIR CONDITIONING C F	7040003	54	431453
65	AIR CONDITIONING D B	7040004	56	49885
65	AIR CONDITIONING E B	7040005	58	36756
65	AIR CONDITIONING IN WING	7040006	62	1373
66	WINDSCREEN DEMISTING	7040007	52	10001
				62495
HYDRAULICS MAIN SYSTEM		7050000		
57	HYDRAULICS MAIN SYSTEM D B	7050001	56	82665
57	HYDRAULICS MAIN SYSTEM E B	7050002	58	133006
				21566
BRAKE PARACHUTE		7080000		
39	BRAKE PARACHUTE F F	7080001	52	1711
39	BRAKE PARACHUTE C F	7080002	54	943
39	BRAKE PARACHUTE D B	7080003	56	445
39	BRAKE PARACHUTE E B	7080004	58	516
39	BRAKE PARACHUTE R F	7080005	59	64438
				6803
ELECTRICAL SYSTEM		7090000		
JUNCTION BOXES		7090100		

PROJECT C-105

DESCRIPTION		REFERENCE NO.	COMP. NO.	WEIGHT
60	JUNCTION BOXES R N	7090101	51	500
60	JUNCTION BOXES F F	7090102	52	35501
60	JUNCTION BOXES C F	7090103	54	12003
60	JUNCTION BOXES A I	7090104	55	300
60	JUNCTION BOXES E B	7090105	58	4006
60	JUNCTION BOXES I W	7090106	62	3005
				6250
ALTERNATOR SYSTEM		7090200		
60	ALTERNATOR SYSTEM F F	7090201	52	68861
60	ALTERNATOR SYSTEM C F	7090202	54	23943
60	ALTERNATOR SYSTEM D B	7090203	56	26495
60	ALTERNATOR SYSTEM ENGINE	7090204		94005
				45178
GENERAL ELECTRICAL CIRCUIT		7090300		
60	GEN ELECT CIRCUITS R N	7090301	51	3101
60	GEN ELECT CIRCUITS F F	7090302	52	106321
60	GEN ELECT CIRCUITS C F	7090303	54	67543
60	GEN ELECT CIRCUITS D B	7090304	56	37205
60	GEN ELECT CIRCUITS E B	7090305	58	5766
60	GEN ELECT CIRCUITS R F	7090306	59	5237
60	GEN ELECT CIRCUITS I W	7090307	62	34765
60	GEN ELECT CIRCUITS O W	7090308	64	3807
60	GEN ELECT CIRCUITS FIN	7090309	83	1208
				26491
L P PNEUMATICS		7100000		
58	L P PNEUMATICS F F	7100001	52	15222
58	L P PNEUMATICS C F	7100002	54	1382
				1660
OIL AND HYD FLD COOLING		7110000		
57	OIL AND HYD FLD COOLING DB	7110001	56	9686
57	OIL AND HYD FLD COOLING EB	7110002	58	22946
				11980
65	INTAKE DEICING	7120000	52	50602
				5060
RADIO AND RADAR FIXED		7140000		
61	RADIO AND RADAR FIXED R N	7140001	51	22500
61	RADIO AND RADAR FIXED F F	7140002	52	170102
61	RADIO AND RADAR FIXED C F	7140003	54	114702

PROJECT C-105

DESCRIPTION		REFERENCE NO.	COMP. NO.	WEIGHT
REMOVABLE EQUIPMENT GROUP		8000000		
69	EJECTOR SEATS	8010100	52	204002
				20400
107	EMERGENCY PROVISIONS	8010201	52	11451
133	SIGNAL PISTOL CARTRIDGES	8010202	52	2001
132	HAND FIRE EXT FLUID	8010203	52	3501
				1695
RADAR REMOV GROUP		8020000		
	RADAR REMOVABLE	8020100		
61	RADAR REMOVABLE R N	8020101	51	81896
61	RADAR REMOVABLE F F	8020102	52	96141
61	RADAR REMOVABLE C F	8020103	54	7302
61	RADAR REMOVABLE D B	8020104	56	9505
				93190
	FLARE OUT ALTIMETER	8020200		
61	FLARE OUT ALTIMETER FF	8020201	52	501
61	FLARE OUT ALTIMETER CF	8020202	54	15002
				1550
61	ELECT MISSILE CONTROL C F	8020400	54	173002
				17300
61	DATA LINK	8020500	54	68002
				6800
61	OMNI DME	8020600	54	70002
				7000
61	J2 COMPASS O W	8020700	64	1307
				130
RADIO REMOV GROUP		8030000		

