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8R

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UNCLASSIFIED
Report No. P/Systems/8R
Load Analysis and Power System
AVRO ARROW II
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NRC ICIST
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ANNEXE
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CNRC - ICIST

ELECTRICAL POWER SUPPLY

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1.0 SUMMARY

An A.C. power generating system utilizing static transformer rectifier units to supply D.C. requirements, similar to the MK I A/C system, has been chosen for the CF-105 MK II

The A.C. generator capacity has been increased to cater for increased electrical loading, due to missile requirements, fire control and AFCS.

For this reason two 40 KVA, 120/208 volt, three phase, 400 cycle alternators have been chosen, each being driven independently by its respective A/C engine through a mechanical-hydraulic constant speed drive unit.

D.C. (27.5 volts) is provided by two 4.5 KW transformer rectifier units, each of which is supplied independently from its respective 40 KVA alternator. The D.C. output from the two transformer rectifier units is paralleled similar to the MK I system.

Classification cancelled/changed to.....
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Signature.....Rank.....

POWER SYSTEM - ELECTRICS CF-105

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INTRODUCTION

2.0 Purpose

The purpose of this report is to establish a load analysis for the CF-105 A/C armed with either Sparrow II or Sparrow III missiles, and from the load analysis select a power system consisting of two alternators and two transformer rectifier units, of minimum weight, but of a capacity that will handle the many varied conditions that will be examined in the following sections.

3.0 General

The Electrical load Analysis has been drawn up on the basis of existing information for the MK II A/C and the Astra system with Sparrow II and Sparrow III missiles.

As full information on the F313 engine was not available, the loading requirements of the J75 engine plus additional known requirements for the F313, were used in determining the load analysis of the MK II A/C.

With the incorporation of the Astra system, the Air Conditioning System will be altered; however it is not anticipated that the electrical load on the overall system will alter, therefore information on the existing system has been utilized in determining the load for the MK II A/C.

Graphs #1 - "A.C. load Sparrow II missiles" and #2 - "D.C. load Sparrow II missiles" were drawn up from the load analysis charts.

Graph #4 - "D.C. load Sparrow III missiles" is identical to Sparrow II (Graph #2) with the addition of 102 amps in the Take Off, Cruise and Cruise Combat conditions required for Sparrow III missiles.

Graph #3 - "A.C. load Sparrow III missiles" caters for revised T.R.U. loads due to additional D.C., (sheet 2 of the A.C. load analysis) and for the substitution of the Sparrow III Armament Missile loads, for the Sparrow II Armament missile loads as shown on sheet 4 of the A.C. load analysis.

4.0 Choice of Power System

4.1 A.C. Two 40 KVA alternators have been chosen on the basis of graphs #1 and #3.

4.2 D.C. Two 4.5 KW transformer rectifier units have been chosen on the basis of graphs #2 and #4.

From these four graphs it is evident that the two 40 KVA alternators and two 4.5 KW transformer rectifier units, will handle the electrical loads on the A/C under normal conditions with a good reserve factor.

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Power System - Electrics CF-105 Cont'd

4.3 Loss of one alternator or transformer rectifier unit.

4.3.1 A switch will be installed in the cockpit to allow the intake de-icing loads to be shed for the A/C to carry on an attack mission. The switch will be a two position switch labelled "Missiles" in one position and "De-Ice" in the other. The switch will normally be set in the "Missiles" position and a failure of one alternator will automatically shed the de-icing load. Should de-icing be required the selection of the switch to "De-Ice" position will pick up the de-icing loads and shed missile loads.

4.3.2 De-Ice Selection. Graph #6 - A.C. load Sparrow II or III is the A.C. load on the A/C when the switch is selected to "De-Ice" position, and it is evident that the 40 KVA alternator will handle this load without overload.

On selecting "De-Ice" approximately 30 amps are dropped from the "Landing" condition, which will bring the load within the rating of one T.R.U. (4.5 KW = 164 amps, see graphs #2 and #4). Graph #2 shows no D.C. problem with one alternator out. Graph #4 shows no problem with "De-Ice" selected as approximately 30 amps dropped from "Landing" condition and 115 amps dropped from cruise, cruise-combat and 132 amps from "Take Off" condition.

4.3.3 "Missiles" selection - With "Missiles" selected on the switch and considering one alternator failure (1 alternator and 1 T.R.U. 'out.)

4.3.3.1 Sparrow II Missiles - Graph #2 shows no problem on D.C. for cruise-combat condition.

Graph #5 indicates that one 40 KVA alternator will handle the load without overload.

These graphs are drawn to the MIL-Specification load analysis and are not truly representative of a combat envelope from the CF-105.

Graph no. 7, corresponding to graph #1, was drawn up to show the combat mission #1 where the combat period is for five minutes maximum.

Of the 40 KVA shown for the combat condition $5\frac{1}{2}$ KVA is for anti-icing of the W/S and canopy which has been considered as a continuous load. With a speed of M 1.5 for combat the K.H. temperature on the outside of the W/S and canopy will be approx. 110°F on a NACA standard day where the ambient at 50,000' is -67°F , and as the W/S and canopy are thermostatically controlled to 110°F this $5\frac{1}{2}$ KVA anti-icing load will not in fact be a continuous load, and therefore the average A.C. load for this condition will be somewhat smaller than shown.

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Power System - Electrics CF-105 Cont'd

4.3.3.2 Sparrow III missiles - Graph #3 shows no A.C. problem with the failure of an alternator.

The average D.C. load shown on graph #4 for the combat condition is approximately 210 amps, however 30 amps of this load will be automatically shed with one T.R.U. out, thus the D.C. load will be 180 amps. or 110 % of rated capacity. The combat period is for 5 minutes and after firing the missiles the D.C. load drops well below rated value of the T.R.U.

4.4 Graphs #8 and #9 were drawn to show the loading on each alternator when both alternators and T.R.U.s are operating under normal conditions.

Graph #10 corresponds to graph #9 showing the typical A/C combat mission #1.

4.4.1 Loads on each alternator (Sparrow II)

		Average WATTS for time intervals on chart			Average VARS for time intervals on chart		
Start & Warm Up	Alt.#1	25256	24861	24766	3995	3700	3570
	VA	25600	25150	2500			
	Alt.#2	16540	15362	14353	9019	8610	8021
	VA	18800	17600	16420			
Taxi	Alt.#1	25421	25131	25096	4120	3870	3865
	VA	25800	25400	25400			
	Alt.#2	14751	14458	14423	8426	8177	8172
	VA	17000	16600	16570			
Take Off	Alt.1	25861	25546	25261	4550	4280	3995
	VA	26300	25800	25600			
	Alt.2	29477	26134	25244	8545	7391	6731
	VA	30700	27100	26150			
Cruise	Alt.1	7978	7826	7771	3470	3355	3300
	VA	8700	8510	8450			
	Alt.2	24602	24438	24374	6162	6040	5979
	VA	25400	25200	25050			
Combat	Alt.1	7921	7771	7683	3445	3300	3235
	VA	8640	8450	8340			
	Alt.2	30204	30043	29947	9644	9492	9421
	VA	31650	31500	31400			
Land	Alt.1	26096	25691	25606	4745	4425	4360
	VA	26500	26000	26000			
	Alt.2	12426	12021	11934	9051	8731	8667
	VA	15400	14850	14750			

APPENDIX I

Determination of Sparrow II Missile Loads:

1.0 Switch selected to "De-Ice" - One Alternator (or T.R.U.) out.

1.1 Sheddable D.C. loads for Take off and landing Conditions.

Land & Taxi Lts.	-	17.8
Land & Taxi Relays	-	.4
Fire Control Coupler	-	3.1
Weapons Control	-	3.0
Antenna Servo	-	1.1
Optical Sight	-	.1
AN/APX26 Interrogator	-	1.9
Computer-Ballistics	-	2.4
Infra Red	-	<u>1.0</u>
Total-		30.8 AMPS

1.2 Sheddable D.C. loads for Cruise Condition
As per 1.1 less Land & Taxi Lts. & relays
Sheddable load 30.8 - 18.2 = 12.6 AMPS.

1.3	Take Off Loads	.5 min.	2 min.	15 min.
	From D.C. load chart - Take off loads	216.2	193.2	172.8
	Less Sheddable loads (1.1)	<u>30.8</u>	<u>30.8</u>	<u>30.8</u>
		185.4	162.4	142.0
	A.C. input to 1 T.R.U. required	7850 VA	7000 VA	6300

1.4	Cruise Loads	.5 min.	2 min	30 min.
	From D.C. load chart - Cruise loads	131.0	119.9	115.9
	Less Sheddable loads (1.2)	<u>12.6</u>	<u>12.6</u>	<u>12.6</u>
		118.4	107.3	103.3
	A.C. input to 1 T.R.U. required	5400 VA	5000 VA	4850 VA

1.5	Landing Loads	.5 min.	2 min.	5 min.
	From D.C. load chart - Landing loads	233.4	203.9	197.8
	Less Sheddable loads (1.1)	<u>30.8</u>	<u>30.8</u>	<u>30.8</u>
		202.6	173.1	167.0
	A.C. input to T.R.U. required	8450 VA	7400 VA	7200 VA

1.6 Sheddable Electronic A.C. loads:-
Displays, RX-TX, Compressor, Signal Data Converter, Liquid Cooling.
Gyro heaters, Antenna Servo, A.M.T.I., Synch., Optical Sight.
Computer, Nadar II, APX/26, Fire Control Coupler, Infra-red and cooling, AN/ARD 501, Missile Auxiliaries, Missile Heaters and Missile loads.

1.7 Calculations to obtain revised A.C. load of Sht. 2 of load charts for switch in "De-Ice" position:-
Watts obtained by multiplying amps by 27.5 volts.
Vars obtained from watts and V.A. for the T.R.U.

	TAKE OFF					
	Watts			Vars		
	$\frac{1}{2}$ min.	5 min.	15 min.	$\frac{1}{12}$ min.	5 min.	15 min.
A.C. Total Sht.2 (chart)	7187	6539	5964	8738	8188	7615
Normal T.R.U. loads Sht.2	5950	5320	4750	8160	7620	7050
Difference	1237	1219	1214	578	568	565
T.R.U. load (1.3)	5100	4465	3905	5965	5390	4940
A.C. loads Sht.2	6337	5684	5119	6543	5958	5505

	CRUISE					
	$\frac{1}{2}$ min.	5 min.	30 min.	$\frac{1}{12}$ min.	5 min.	30 min.
A.C. Totals Sht.2 (chart)	4839	4523	4404	6578	6341	6225
Normal T.R.U. load Sht.2	2605	3300	3190	6000	5770	5660
Difference	1234	1223	1214	578	571	565
T.R.U. load (1.4)	3255	2950	2840	4300	4030	3930
A.C. load Sht.2	4489	4173	4054	4878	4601	4495

	LAND					
	$\frac{1}{2}$ min.	2 min.	5 min.	$\frac{1}{12}$ min.	2 min.	5 min.
A.C. Totals Sht.2 (chart)	7636	6826	6654	9114	8474	8345
Normal T.R.U. load Sht.2	6420	5610	5440	8550	7910	7780
Difference	1216	1216	1214	564	564	565
T.R.U. load (1.5)	5575	4760	4590	6350	5660	5545
A.C. load Sht.2	6791	5976	5804	6914	6224	6110

1.8 Calculations for graph #6
 Totalling A.C. loads; Shts. 1,2,3 & 4 of A.C. charts - Shts. revised as necessary.

Chart	TAKE OFF				TAKE OFF		
	$\frac{1}{2}$ min.	5 min.	15 min.		$\frac{1}{2}$ min.	5 min.	15 min.
Sht.1	23500	23500	23500	1014	1014	1014	
Sht.2	6337	5684	5119	Revised (1.7)	6543	5958	5505
Sht.3	776	776	776	Revised (1.6)	481	481	481
Sht.4	1500	1500	1500	Revised (1.6)	758	758	758
	32113	31460	30895		8796	8211	7758
V.A.	33250	32450	31850				

	CRUISE				CRUISE		
	$\frac{1}{2}$ min.	5 min.	30 min.		$\frac{1}{2}$ min.	5 min.	30 min.
Sht. 1	6790	6790	6790		1014	1014	1014
Sht.2	4489	4173	4054	Revised (1.7)	4878	4601	4495
Sht.3	776	776	776	Revised (1.6)	481	481	481
Sht.4	1500	1500	1500	Revised (1.6)	758	758	758
	13555	13239	13120		7131	6854	6748
V.A.	15300	14900	14750				

LANDING

	<u>Watts</u>				<u>Vars</u>		
	<u>1/2 min.</u>	<u>2 min.</u>	<u>5 min.</u>		<u>1/2 min.</u>	<u>2 min.</u>	<u>5 min.</u>
Sht.1	23500	23500	23500		1014	1014	1014
Sht.2	6791	5976	5804	Revised(1.7)	6914	6224	6110
Sht.3	776	776	776	Revised(1.6)	481	481	481
Sht.4	1500	1500	1500	Revised(1.6)	758	758	758
	<u>32567</u>	<u>31752</u>	<u>31580</u>		<u>9167</u>	<u>8477</u>	<u>8363</u>
V.A.	33800	32850	32650				

APPENDIX II

Calculations for Sparrow III Missiles

1.0 D.C. loads - as per Sparrow II load charts with the addition of 102 amps in the Take Off, Cruise, and Cruise-Combat conditions.

	<u>START & WARM UP</u>			<u>TAXI</u>		
	$\frac{1}{2}$ min.	2 min.	15 min.	$\frac{1}{2}$ min.	2 min.	15 min.
Sparrow II D.C. loads (amps)	172.1	143.7	136.7	184.0	163.1	160.5
Additional for Sparrow III	0	0	0	0	0	0
Sparrow III D.C. loads	<u>172.1</u>	<u>143.7</u>	<u>136.7</u>	<u>184.0</u>	<u>163.1</u>	<u>160.5</u>
A.C. input to T.R.U.S. (V.A.)	Same as Sparrow II			Same as Sparrow II		

	<u>TAKE OFF & CLIMB</u>			<u>CRUISE</u>		
	$\frac{1}{2}$ min.	2 min.	15 min.	$\frac{1}{2}$ min.	2 min.	30min.
Sparrow II D.C. loads (amps)	216.2	193.2	172.8	131.0	119.9	115.9
Additional for Sparrow III	102	102	102	102	102	102
Sparrow III D.C. loads (amps)	<u>318.2</u>	<u>295.2</u>	<u>274.8</u>	<u>233.0</u>	<u>221.9</u>	<u>217.9</u>
A.C. input to T.R.U's (V.A.)	13800	13000	12200	10700	10300	10200

	<u>CRUISE COMBAT</u>			<u>LANDING</u>		
	$\frac{1}{2}$ min.	2 min.	30 min.	$\frac{1}{2}$ min.	2 min.	5min.
Sparrow II D.C. loads (amps)	126.8	115.9	109.6	233.4	203.9	197.8
Additional for Sparrow III	102	102	102	0	0	0
Sparrow III D.C. loads (amps)	<u>228.8</u>	<u>217.9</u>	<u>211.6</u>	<u>233.4</u>	<u>203.9</u>	<u>197.8</u>
A.C. input to T.R.U's (V.A.)	10500	10200	9900	Same as Sparrow II		

2.0 A.C. Loads.

2.1 Calculations for Sparrow III A.C. loads Sht.2 of A.C. load charts. Start & Warm Up, Taxi and Landing identical to Sparrow II.

	<u>TAKE OFF</u>			<u>Vars.</u>		
	$\frac{1}{2}$ min.	5 min.	15 min.	$\frac{1}{2}$ min.	5 min.	15min.
Sparrow II load Sht.2	7187	6539	5964	8728	8188	7615
Less Sparrow II T.R.U. load	<u>5950</u>	<u>5320</u>	<u>4750</u>	<u>8160</u>	<u>7620</u>	<u>7050</u>
	1237	1219	1214	578	568	565
Plus Sparrow III TRU load (1.0)	<u>8750</u>	<u>8110</u>	<u>7560</u>	<u>10650</u>	<u>10150</u>	<u>9570</u>
Sparrow III load Sht.2	9987	9329	8774	11228	10718	10135

	<u>CRUISE</u>			<u>Vars</u>		
	$\frac{1}{2}$ min.	5 min.	30 min.	$\frac{1}{2}$ min.	5 min.	30min.
Sparrow II load Sht.2	4839	4523	4404	6578	6341	6225
Less Sparrow II T.R.U. load	<u>3605</u>	<u>3300</u>	<u>3190</u>	<u>6000</u>	<u>5770</u>	<u>5660</u>
	1234	1223	1214	578	571	565
Plus Sparrow III load (1.0)	<u>6400</u>	<u>6100</u>	<u>5980</u>	<u>8570</u>	<u>8300</u>	<u>8250</u>
Sparrow III load Sht.2	7634	7323	7194	9148	8871	8815

CRUISE COMBAT

	$\frac{1}{2}$ min.	5 min.	30 min.	$\frac{1}{2}$ min.	5 min.	30 min.
Sparrow II load Sht.2	4724	4413	4229	6528	6231	6095
Less Sparrow II T.R.U. load	<u>3490</u>	<u>3190</u>	<u>3015</u>	<u>5950</u>	<u>5660</u>	<u>5530</u>
	1234	1223	1214	578	571	565
Plus Sparrow III TRU load(1.0)	6290	5985	5815	8410	8250	8010
Sparrow III load Sht.2	<u>7524</u>	<u>7208</u>	<u>7029</u>	<u>8988</u>	<u>8821</u>	<u>8575</u>

2.2 Calculations for Sparrow III A.C. loads Sht.4 of load charts.
Sparrow III loads Sht.4 - Low volt power supply - same as Sparrow II

Oxygen Capacitance	- Same As Sparrow II
Power Failure Detector	- Same As Sparrow II
Missile Auxiliaries	- 553 watts 348 vars
CW Transmitter	- 825 watts 520 vars
Weapons Control	- 170 watts 105 vars

Start & Warm up - All loads except Weapons Control
Taxi - All loads except Weapons Control
Take off & Climb - All loads except Weapons Control
Cruise - All loads except Weapons Control
Cruise Combat - All loads.
Landing - Low Voltage power supply, Oxygen Cap., & Power Failure Detector.

2.3 Calculations for Sparrow III A.C. load total - Graph #3.

START & WARM UP

Chart	Watts				Vars		
	$\frac{1}{2}$ min.	5 min.	15 min.		$\frac{1}{2}$ min.	5 min.	15 min.
Sht.1	24427	24427	23723		1588	1588	1142
Sht.2	5974	5168	4974		7628	7028	6765
Sht.3	5875	5108	4902		2408	2304	2284
Sht.4	<u>2878</u>	<u>2878</u>	<u>2878</u>	Revised(2.2)	<u>1626</u>	<u>1626</u>	<u>1626</u>
	39154	37581	36477		13250	12546	11817
V.A.	41300	39550	38350				

TAXI

Sht.1	23500	23500	23500		1014	1014	1014
Sht.2	6286	5703	5633		7864	7365	7355
Sht.3	4866	4866	4866		2278	2278	2278
Sht.4	<u>2878</u>	<u>2878</u>	<u>2878</u>	Revised(2.2)	<u>1626</u>	<u>1626</u>	<u>1626</u>
	37530	36947	36877		12782	12283	12273
V.A.	39650	38900	38800				

TAKE OFF & CLIMB

	<u>Watts</u>				<u>Vars</u>		
	$\frac{1}{2}$ min.	5 min.	30 min.		$\frac{1}{2}$ min.	5 min.	30 min.
Sht.1	23500	23500	23500		1014	1014	1014
Sht.2	9987	9329	8774	Revised(2.1)	11228	10718	10135
Sht.3	11811	11811	11811		-1097	-1097	-1097
Sht.4	<u>2878</u>	<u>2878</u>	<u>2878</u>	Revised(2.2)	<u>1626</u>	<u>1626</u>	<u>1626</u>
V.A.	49800	49050	48400		12771	12261	11678

CRUISE

	<u>Watts</u>				<u>Vars</u>		
	$\frac{1}{2}$ min.	5 min.	30 min.		$\frac{1}{2}$ min.	5 min.	30 min.
Sht.1	6790	6790	6790		1014	1014	1014
Sht.2	7634	7323	7194	Revised(2.1)	9148	8871	8815
Sht.3	11811	11811	11811		-1097	-1097	-1097
Sht.4	<u>2878</u>	<u>2878</u>	<u>2878</u>	Revised(2.2)	<u>1626</u>	<u>1626</u>	<u>1626</u>
V.A.	31000	30600	30500		10691	10414	10358

CRUISE COMBAT

	<u>Watts</u>				<u>Vars</u>		
	$\frac{1}{2}$ min.	5 min.	30 min.		$\frac{1}{2}$ min.	5 min.	30 min.
Sht.1	6790	6790	6790		1014	1014	1014
Sht.2	7524	7208	7029	Revised(2.1)	8988	8821	8575
Sht.3	11811	11811	11811		-1097	-1097	-1097
Sht.4	<u>3048</u>	<u>3048</u>	<u>3048</u>	Revised(2.2)	<u>1731</u>	<u>1731</u>	<u>1731</u>
V.A.	31000	30700	30450		10636	10469	10223

LANDING

	<u>Watts</u>				<u>Vars</u>		
	$\frac{1}{2}$ min.	2 min.	5 min.		$\frac{1}{2}$ min.	2 min.	5 min.
Sht.1	23500	23500	23500		1014	1014	1014
Sht.2	7636	6826	6654		9114	8474	8345
Sht.3	4866	4866	4866		2278	2278	2278
Sht.4	<u>1500</u>	<u>1500</u>	<u>1500</u>	Revised(2.2)	<u>758</u>	<u>758</u>	<u>758</u>
V.A.	39800	38800	38600		13164	12524	12395

CHART
LOAD ANALYSIS
A.C.

SHT. 1

EQUIPMENT	PART DESIGNATION	TOTAL NO OF UNITS	OPERATING TIME	ELECTRICAL REQUIREMENTS				
				TOTAL VA.	200 V WATTS			
					Ø1	Ø2	Ø3	TOTAL
A.C. GENERATOR		2		40000				
<u>C. CONTROL SURFACE</u>								
DAMPING		1		110.0	78.5	7.5	7.5	93.5
STABLE PLATFORM		1		500.0	141.5	141.5	141.5	424.5
DISPLAY (A.F.C.S.)		1		212.0				180.0
<u>D. INSTRUMENT</u>								
SKIN TEMP. INDICATOR		1		5.7	4.0	—	—	4.0
<u>E. ENGINE INSTRUMENTS</u>								
FUEL CAPACITANCE		2		13.3	8.0	—	—	8.0
TURBINE DISCHARGE TEMP.		2		10.0	6.0	—	—	6.0
PRESSURE RATIO INDICATOR		2		90.0	60.0	—	—	60.0
<u>F. FLIGHT INSTRUMENTS</u>								
ARTIFICIAL HORIZON (TRANSFORMER)		1		67.0	20.0	20.0	20.0	60.0
DOPPLER		1		600.0	170.0	170.0	170.0	510.0
D.R. COMPUTER		1		115.0				98.0
<u>H. HEATING & DE-ICING</u>								
TEMP. CONTROL UNITS (W/S & CANOPY)		2		.3	.3	—	—	.3
TEMP. CONTROL UNITS (W/S & CANOPY)		2		.3	—	.3	—	.3
TEMP. CONTROL - COCKPIT		1		10.0	10.0	—	—	10.0
TEMP. CONTROL - RADAR		1		10.0	10.0	—	—	10.0
L/H RAMP DE-ICING		1		8355.0	2723.0	2714.0	2718.0	8355.0
R/H RAMP DE-ICING		1		8355.0	2723.0	2714.0	2718.0	8355.0
W/S & CANOPY ANTI-ICING		1		5250.0	1750.0	1750.0	1750.0	5250.0

ELECTRICAL REQUIREMENTS PER UNIT													CONNECTED LOAD	
200 V 3 PHASE							115 V 1 PHASE			PF	VOLT REG	FREQ RANGE	WATTS	VAR
WATTS			VARS				V.A	WATTS	VARS					
Ø2	Ø3	TOTAL	Ø1	Ø2	Ø3	TOTAL								
												380-420		
5	7.5	7.5	93.5	48.7	4.6	4.6	57.9			.85		380-420	93.5	57.9
5	141.5	141.5	424.5	88.0	88.0	88.0	264.0			.85		380-420	425.0	264.0
			180.0				111.0			.85			180.0	111.0
	-	-	4.0	4.0	-	-	4.0			.70 ± 10		380-420	4.0	4.0
	-	-	8.0	10.6	-	-	10.6			.60 ± 10		380-420	16.0	21.2
	-	-	6.0	8.0	-	-	8.0			.60 ± 10		380-420	12.0	16.0
	-	-	60.0	66.8	-	-	66.8			.67 ± 10		380-420	120.0	133.0
	20.0	20.0	60.0	9.6	9.6	9.6	28.8			.90 ± 10		380-420	60.0	28.8
	170.0	170.0	510.0	105.5	105.5	105.5	316.5			.85		380-420	510.0	317.0
			98.0				60.5			.85		380-420	98.0	60.5
	-	-	.3	.1	-	-	.1			.95 ± 10		380-420	.6	.2
	.3	-	.3	.1	-	-	.1			.95 ± 10		380-420	.6	.2
	-	-	10.0	-	-	-	-			1.0 ± 10		380-420	10.0	-
	-	-	10.0	-	-	-	-			1.0 ± 10		380-420	10.0	-
0	2714.0	2918.0	8355.0	-	-	-	-			1.0 ± 10		380-420	8355.0	-
0	2714.0	2918.0	8355.0	-	-	-	-			1.0 ± 10		380-420	8355.0	-
0	1750.0	1750.0	5250.0	-	-	-	-			1.0 ± 4		380-420	5250.0	-

E VAR	PF	VOLT REG	FREQ. RANGE	CONNECTED LOAD		MIN MAX	LOADING & ANCHOR											
				WATTS	VAR		WATTS	AVERAGE WATTS.			VAR	AVERAGE VAR						
								1/2 MIN	5 MIN	15 MIN		1/2 MIN	5 MIN	15 MIN				
			380-420															
	.85		380-420	93.5	57.9													
	.85		380-420	425.0	264.0													
	.85			180.0	111.0													
	.70	± 10	380-420	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0
	.60	± 10	380-420	16.0	21.2		16.0	16.0	16.0	16.0		21.2	21.2	21.2	21.2	21.2	21.2	21.2
	.60	± 10	380-420	12.0	16.0		12.0	12.0	12.0	12.0		16.0	16.0	16.0	16.0	16.0	16.0	16.0
	.67	± 10	380-420	120.0	133.6		120.0	120.0	120.0	120.0		133.6	133.6	133.6	133.6	133.6	133.6	133.6
	.90	± 10	380-420	60.0	28.8		60.0	60.0	60.0	60.0		28.8	28.8	28.8	28.8	28.8	28.8	28.8
	.85		380-420	510.0	317.0													
	.85		380-420	98.0	60.5													
	.95	± 10	380-420	.6	.2		.6	.6	.6	.6		.2	.2	.2	.2	.2	.2	.2
	.95	± 10	380-420	.6	.2		.6	.6	.6	.6		.2	.2	.2	.2	.2	.2	.2
	1.0	± 10	380-420	10.0	-		10.0	10.0	10.0	10.0		-	-	-	-	-	-	-
	1.0	± 10	380-420	10.0	-		10.0	10.0	10.0	10.0		-	-	-	-	-	-	-
	1.0	± 10	380-420	8355.0	-		-	-	-	-		-	-	-	-	-	-	-
	1.0	± 10	380-420	8355.0	-		-	-	-	-		-	-	-	-	-	-	-
	1.0	± 4	380-420	5250.0	-		5250.0	5250.0	5250.0	5250.0		-	-	-	-	-	-	-

G & ANCHOR

START & WARM-UP

VARS	AVERAGE VARS			WATTS	AVERAGE WATTS			VARS	AVERAGE VARS		
	1/2 MIN	5 MIN	15 MIN		1/2 MIN	5 MIN	15 MIN		1/2 MIN	5 MIN	15 MIN
				93.5	903.0	903.0	301.0	57.9	560.0	560.0	187.0
				425.0	543.0	543.0	441.0	264.0	336.0	336.0	273.0
				180.0	180.0	180.0	180.0	111.0	111.0	111.0	111.0
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
21.2	21.2	21.2	21.2	16.0	16.0	16.0	16.0	21.2	21.2	21.2	21.2
16.0	16.0	16.0	16.0	12.0	12.0	12.0	12.0	16.0	16.0	16.0	16.0
133.6	133.6	133.6	133.6	120.0	120.0	120.0	120.0	133.6	133.6	133.6	133.6
28.8	28.8	28.8	28.8	60.0	60.0	60.0	60.0	28.8	28.8	28.8	28.8
				510.0	510.0	510.0	510.0	317.0	317.0	317.0	317.0
				98.0	98.0	98.0	98.0	60.5	60.5	60.5	60.5
.2	.2	.2	.2	.6	.6	.6	.6	.2	.2	.2	.2
.2	.2	.2	.2	.6	.6	.6	.6	.2	.2	.2	.2
-	-	-	-	10.0	10.0	10.0	10.0	-	-	-	-
-	-	-	-	10.0	10.0	10.0	10.0	-	-	-	-
-	-	-	-	8355.0	8355.0	8355.0	8355.0	-	-	-	-
-	-	-	-	8355.0	8355.0	8355.0	8355.0	-	-	-	-
-	-	-	-	5250.0	5250.0	5250.0	5250.0	-	-	-	-
				24427.2	24427.2	23723.2		1588.5	1588.5	1152.5	

AVERAGE WATTS		AVERAGE WATTS				AVERAGE VARS				AVERAGE WATTS	
5 MIN	15 MIN	WATTS	1/2 MIN	5 MIN	15 MIN	WATTS	1/2 MIN	5 MIN	15 MIN	WATTS	1/2 MIN
560.0	187.0	93.5	93.5	93.5	93.5	57.9	57.9	57.9	57.9	93.5	93.5
336.0	273.0	425.0	425.0	425.0	425.0	264.0	264.0	264.0	264.0	425.0	425.0
111.0	111.0	180.0	180.0	180.0	180.0	111.0	111.0	111.0	111.0	180.0	180.0
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
21.2	21.2	16.0	16.0	16.0	16.0	21.2	21.2	21.2	21.2	16.0	16.0
16.0	16.0	12.0	12.0	12.0	12.0	16.0	16.0	16.0	16.0	12.0	12.0
133.6	133.6	120.0	120.0	120.0	120.0	133.6	133.6	133.6	133.6	120.0	120.0
28.8	28.8	60.0	60.0	60.0	60.0	28.8	28.8	28.8	28.8	60.0	60.0
317.0	317.0	510.0	510.0	510.0	510.0	317.0	317.0	317.0	317.0	510.0	510.0
60.5	60.5	98.0	98.0	98.0	98.0	60.5	60.5	60.5	60.5	98.0	98.0
.2	.2	.6	.6	.6	.6	.2	.2	.2	.2	.6	.6
.2	.2	.6	.6	.6	.6	.2	.2	.2	.2	.6	.6
-	-	10.0	10.0	10.0	10.0	-	-	-	-	10.0	10.0
-	-	10.0	10.0	10.0	10.0	-	-	-	-	10.0	10.0
-	-	8355.0	8355.0	8355.0	8355.0	-	-	-	-	8355.0	8355.0
-	-	8355.0	8355.0	8355.0	8355.0	-	-	-	-	8355.0	8355.0
-	-	5250.0	5250.0	5250.0	5250.0	-	-	-	-	5250.0	5250.0
1588.5	1152.5	23499.7	23499.7	23499.7	23499.7	1014.4	1014.4	1014.4	1014.4	23499.7	23499.7

OPERATING

TAXI				TAKE OFF & CLIMB							
VARS	AVERAGE VARS			WATTS	AVERAGE WATTS			VARS	AVERAGE VARS		
	1/2 MIN	5 MIN	15 MIN		1/2 MIN	5 MIN	15 MIN		1/2 MIN	5 MIN	15 MIN
57.9	57.9	57.9	57.9	93.5	93.5	93.5	93.5	57.9	57.9	57.9	57.9
264.0	264.0	264.0	264.0	425.0	425.0	425.0	425.0	264.0	264.0	264.0	264.0
111.0	111.0	111.0	111.0	180.0	180.0	180.0	180.0	111.0	111.0	111.0	111.0
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
21.2	21.2	21.2	21.2	16.0	16.0	16.0	16.0	21.2	21.2	21.2	21.2
16.0	16.0	16.0	16.0	12.0	12.0	12.0	12.0	16.0	16.0	16.0	16.0
133.6	133.6	133.6	133.6	120.0	120.0	120.0	120.0	133.6	133.6	133.6	133.6
28.8	28.8	28.8	28.8	60.0	60.0	60.0	60.0	28.8	28.8	28.8	28.8
317.0	317.0	317.0	317.0	510.0	510.0	510.0	510.0	317.0	317.0	317.0	317.0
60.5	60.5	60.5	60.5	98.0	98.0	98.0	98.0	60.5	60.5	60.5	60.5
.2	.2	.2	.2	.6	.6	.6	.6	.2	.2	.2	.2
.2	.2	.2	.2	.6	.6	.6	.6	.2	.2	.2	.2
-	-	-	-	10.0	10.0	10.0	10.0	-	-	-	-
-	-	-	-	10.0	10.0	10.0	10.0	-	-	-	-
-	-	-	-	8355.0	8355.0	8355.0	8365.0	-	-	-	-
-	-	-	-	8355.0	8355.0	8355.0	8355.0	-	-	-	-
-	-	-	-	5250.0	5250.0	5250.0	5250.0	-	-	-	-
1014.4	1014.4	1014.4		23499.7	23499.7	23499.7		1014.4	1014.4	1014.4	

OPERATING CONDITIONS

TAKE OFF & CLIMB					CRUISE								
WATTS		VARS	AVERAGE VARS			WATTS	AVERAGE WATTS			VARS	AVERAGE		
5 MIN.	1/2 MIN.		5 MIN.	15 MIN.	1/2 MIN.		5 MIN.	30 MIN.	1/2 MIN.		5 MIN.	30 MIN.	
3.5		57.9	57.9	57.9	57.9	93.5	93.5	93.5	93.5	57.9	57.9	57.9	
25.0		264.0	264.0	264.0	264.0	425.0	425.0	425.0	425.0	264.0	264.0	264.0	
80.0		111.0	111.0	111.0	111.0	180.0	180.0	180.0	180.0	111.0	111.0	111.0	
4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
16.0		21.2	21.2	21.2	21.2	16.0	16.0	16.0	16.0	21.2	21.2	21.2	
12.0		16.0	16.0	16.0	16.0	12.0	12.0	12.0	12.0	16.0	16.0	16.0	
120.0		133.6	133.6	133.6	133.6	120.0	120.0	120.0	120.0	133.6	133.6	133.6	
60.0		28.8	28.8	28.8	28.8	60.0	60.0	60.0	60.0	28.8	28.8	28.8	
510.0		317.0	317.0	317.0	317.0	510.0	510.0	510.0	510.0	317.0	317.0	317.0	
98.0		60.5	60.5	60.5	60.5	98.0	98.0	98.0	98.0	60.5	60.5	60.5	
.6		.2	.2	.2	.2	.6	.6	.6	.6	.2	.2	.2	
.6		.2	.2	.2	.2	.6	.6	.6	.6	.2	.2	.2	
10.0		-	-	-	-	10.0	10.0	10.0	10.0	-	-	-	
10.0		-	-	-	-	10.0	10.0	10.0	10.0	-	-	-	
363.0		-	-	-	-	-	-	-	-	-	-	-	
355.0		-	-	-	-	-	-	-	-	-	-	-	
250.0		-	-	-	-	5250.0	5250.0	5250.0	5250.0	-	-	-	
3499.7		1014.4	1014.4	1014.4	1014.4	6789.7	6789.7	6789.7	6789.7	1014.4	1014.4	1014.4	

LOADING CONDITIONS

CRUISE

CR

S	N	WATTS	AVERAGE WATTS			VARS	AVERAGE VARS			WATTS	AVERAGE WATTS		
			1/2 MIN	5 MIN	30 MIN		1/2 MIN	5 MIN	30 MIN		1/2 MIN	5 MIN	30 MIN
		93.5	93.5	93.5	93.5	57.9	57.9	57.9	57.9	93.5	93.5	93.5	93.5
		425.0	425.0	425.0	425.0	264.0	264.0	264.0	264.0	425.0	425.0	425.0	425.0
		180.0	180.0	180.0	180.0	111.0	111.0	111.0	111.0	180.0	180.0	180.0	180.0
		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
		16.0	16.0	16.0	16.0	21.2	21.2	21.2	21.2	16.0	16.0	16.0	16.0
		12.0	12.0	12.0	12.0	16.0	16.0	16.0	16.0	12.0	12.0	12.0	12.0
		120.0	120.0	120.0	120.0	133.6	133.6	133.6	133.6	120.0	120.0	120.0	120.0
		60.0	60.0	60.0	60.0	28.8	28.8	28.8	28.8	60.0	60.0	60.0	60.0
		510.0	510.0	510.0	510.0	317.0	317.0	317.0	317.0	510.0	510.0	510.0	510.0
		98.0	98.0	98.0	98.0	60.5	60.5	60.5	60.5	98.0	98.0	98.0	98.0
		.6	.6	.6	.6	.2	.2	.2	.2	.6	.6	.6	.6
		.6	.6	.6	.6	.2	.2	.2	.2	.6	.6	.6	.6
		10.0	10.0	10.0	10.0	—	—	—	—	10.0	10.0	10.0	10.0
		10.0	10.0	10.0	10.0	—	—	—	—	10.0	10.0	10.0	10.0
		—	—	—	—	—	—	—	—	—	—	—	—
		—	—	—	—	—	—	—	—	—	—	—	—
		5250.0	5250.0	5250.0	5250.0	—	—	—	—	5250.0	5250.0	5250.0	5250.0
		6789.7	6789.7	6789.7	6789.7	1014.4	1014.4	1014.4	1014.4	6789.7	6789.7	6789.7	6789.7

CRUISE

CRUISE - COMBAT

VARS	AVERAGE VARS			WATTS	AVERAGE WATTS			VARS	AVERAGE VARS		
	1/2 MIN	5 MIN	30 MIN		1/2 MIN	5 MIN	30 MIN		1/2 MIN	5 MIN	30 MIN
57.9	57.9	57.9	57.9	93.5	93.5	93.5	93.5	57.9	57.9	57.9	57.9
264.0	264.0	264.0	264.0	425.0	425.0	425.0	425.0	264.0	264.0	264.0	264.0
111.0	111.0	111.0	111.0	180.0	180.0	180.0	180.0	111.0	111.0	111.0	111.0
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
21.2	21.2	21.2	21.2	16.0	16.0	16.0	16.0	21.2	21.2	21.2	21.2
16.0	16.0	16.0	16.0	12.0	12.0	12.0	12.0	16.0	16.0	16.0	16.0
133.6	133.6	133.6	133.6	120.0	120.0	120.0	120.0	133.6	133.6	133.6	133.6
28.8	28.8	28.8	28.8	60.0	60.0	60.0	60.0	28.8	28.8	28.8	28.8
317.0	317.0	317.0	317.0	510.0	510.0	510.0	510.0	317.0	317.0	317.0	317.0
60.5	60.5	60.5	60.5	98.0	98.0	98.0	98.0	60.5	60.5	60.5	60.5
.2	.2	.2	.2	.6	.6	.6	.6	.2	.2	.2	.2
.2	.2	.2	.2	.6	.6	.6	.6	.2	.2	.2	.2
-	-	-	-	10.0	10.0	10.0	10.0	-	-	-	-
-	-	-	-	10.0	10.0	10.0	10.0	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	5250.0	5250.0	5250.0	5250.0	-	-	-	-
	1014.4	1014.4	1014.4		6789.7	6789.7	6789.7		1014.4	1014.4	1014.4

CRUISE - COMBAT

LANDING

AVERAGE WATTS				VARS	AVERAGE VARS			WATTS	AVERAGE WATTS				VARS	1/2 MIN
N	5 MIN	30 MIN			1/2 MIN	3 MIN	30 MIN		1/2 MIN	2 MIN	3 MIN			
	93.5	93.5		57.9	57.9	57.9	57.9	93.5	93.5	93.5	93.5		57.9	57.9
	425.0	425.0		264.0	264.0	264.0	264.0	425.0	425.0	425.0	425.0		264.0	264.0
	180.0	180.0		111.0	111.0	111.0	111.0	180.0	180.0	180.0	180.0		111.0	111.0
	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0
	16.0	16.0		21.2	21.2	21.2	21.2	16.0	16.0	16.0	16.0		21.2	21.2
	12.0	12.0		16.0	16.0	16.0	16.0	12.0	12.0	12.0	12.0		16.0	16.0
	120.0	120.0		133.6	133.6	133.6	133.6	120.0	120.0	120.0	120.0		133.6	133.6
	60.0	60.0		28.8	28.8	28.8	28.8	60.0	60.0	60.0	60.0		28.8	28.8
	510.0	510.0		317.0	317.0	317.0	317.0	510.0	510.0	510.0	510.0		317.0	317.0
	98.0	98.0		60.5	60.5	60.5	60.5	98.0	98.0	98.0	98.0		60.5	60.5
	.6	.6		.2	.2	.2	.2	.6	.6	.6	.6		.2	.2
	.6	.6		.2	.2	.2	.2	.6	.6	.6	.6		.2	.2
	10.0	10.0		-	-	-	-	10.0	10.0	10.0	10.0		-	-
	10.0	10.0		-	-	-	-	10.0	10.0	10.0	10.0		-	-
	-	-		-	-	-	-	8355.0	8355.0	8355.0	8355.0		-	-
	-	-		-	-	-	-	8355.0	8355.0	8355.0	8355.0		-	-
	5250.0	5250.0		-	-	-	-	5250.0	5250.0	5250.0	5250.0		-	-
	6789.7	6789.7		1014.4	1014.4	1014.4	1014.4	23499.7	23499.7	23499.7	23499.7		1014.4	1014.4

LANDING

VARS 30 MIN	AVERAGE WATTS				VARS	AVERAGE VARS			WATTS	AVERAGE	
	WATTS	1/2 MIN	2 MIN	5 MIN		1/2 MIN	2 MIN	5 MIN		1/2 MIN	5 MIN
57.9	93.5	93.5	93.5	93.5	57.9	57.9	57.9	57.9	9.5	9.5	9.5
264.0	425.0	425.0	425.0	425.0	264.0	264.0	264.0	264.0	425.0	425.0	425.0
111.0	180.0	180.0	180.0	180.0	111.0	111.0	111.0	111.0	180.0	180.0	180.0
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
21.2	16.0	16.0	16.0	16.0	21.2	21.2	21.2	21.2			
16.0	12.0	12.0	12.0	12.0	16.0	16.0	16.0	16.0			
133.6	120.0	120.0	120.0	120.0	133.6	133.6	133.6	133.6			
28.8	60.0	60.0	60.0	60.0	28.8	28.8	28.8	28.8	60.0	60.0	60.0
317.0	510.0	510.0	510.0	510.0	317.0	317.0	317.0	317.0			
60.5	98.0	98.0	98.0	98.0	60.5	60.5	60.5	60.5			
.2	.6	.6	.6	.6	.2	.2	.2	.2			
.2	.6	.6	.6	.6	.2	.2	.2	.2			
-	10.0	10.0	10.0	10.0	-	-	-	-			
-	10.0	10.0	10.0	10.0	-	-	-	-			
-	8355.0	8355.0	8355.0	8355.0	-	-	-	-			
-	8355.0	8355.0	8355.0	8355.0	-	-	-	-			
-	5250.0	5250.0	5250.0	5250.0	-	-	-	-			
1014.4	23499.7	23499.7	23499.7	23499.7	1014.4	1014.4	1014.4	1014.4	674.5	674.5	674.5

AVERAGE VARS			EMERGENCY							
1/2 MIN	2 MIN	5 MIN	WATTS	AVERAGE WATTS			WATTS	AVERAGE VARS		
				1/2 MIN	5 MIN	30 MIN		1/2 MIN	5 MIN	30 MIN
57.9	57.9	57.9	9.5	9.5	9.5	9.5	5.9	5.9	5.9	5.9
264.0	264.0	264.0	425.0	425.0	425.0	425.0	264.0	264.0	264.0	264.0
111.0	111.0	111.0	180.0	180.0	180.0	180.0	111.0	111.0	111.0	111.0
4.0	4.0	4.0								
21.2	21.2	21.2								
16.0	16.0	16.0								
133.6	133.6	133.6								
28.8	28.8	28.8	60.0	60.0	60.0	60.0	28.8	28.8	28.8	28.8
317.0	317.0	317.0								
60.5	60.5	60.5								
.2	.2	.2								
.2	.2	.2								
-	-	-								
-	-	-								
-	-	-								
-	-	-								
1014.4	1014.4	1014.4	674.5	674.5	674.5	674.5	409.7	409.7	409.7	409.7

SHT. 2

EQUIPMENT	PART DESIGNATION	TOTAL NO. OF UNITS	OPERATING TIME HRS	ELECTRICAL			
				TOTAL VA	WATTS		
					Ø1	Ø2	Ø3
<u>L. LIGHTING</u>							
FRONT C/P INST. LIGHTS (TRANSFORMER)		1		40.5	38.5	-	-
FRONT C/P CONSOLE EDGE LIGHTS	"	1		39.4	37.4	-	-
FRONT C/P CONSOLE FLOOD LIGHTS	"	1		47.4	45.0	-	-
REAR C/P CONSOLE FLOOD LIGHTS	"	1		47.4	45.0	-	-
REAR C/P CONSOLE EDGE LIGHTS	"	1		26.3	25.0	-	-
<u>P. POWER</u>							
TRANSFORMER RECTIFIER UNIT		2		7050.0	1500.0	1500.0	1500.0
<u>Q. FUEL & OIL</u>							
ENGINE CONTROL (AMPLIFIER)		2		250.0	238.0	-	-
C.G. ATTITUDE SENSOR		1		13.3	8.0	-	-
<u>R. RADIO (NAVIGATION & COMM.)</u>							
U.H.F. COMMAND	AN/ARC-52	1		129.0	36.0	36.0	36.0
RADIO COMPASS TUNING DRIVE	ARN-6	1		25.0			
U.H.F. HOMER	ARA-25	1		6.0			
DATA LINK	AN/ARR-48	1		500.0			

ELECTRICAL REQUIREMENTS PER UNIT							PF	VOLT REG	FREQ. RANGE	CONNECTED LOAD			
200 V 3 PHASE				115 V 1 PHASE						WATTS	VARB		
WATTS			VARB										
Ø2	Ø3	TOTAL	Ø1	Ø2	Ø3	TOTAL	VA	WATTS	VARB				
-	-	38.5	12.5	-	-	12.5				.95 ± 10	380-420	38.5	12.5
-	-	37.4	12.2	-	-	12.2				.95 ± 10	380-420	37.4	12.2
-	-	45.0	14.7	-	-	14.7				.95 ± 10	380-420	45.0	14.7
-	-	45.0	14.7	-	-	14.7				.95 ± 10	380-420	45.0	14.7
-	-	25.0	8.1	-	-	8.1				.95 ± 10	380-420	25.0	8.1
00.0	1500.0	4500.0	1810.0	1810.0	1810.0	5430.0				.64 ± 4	380-420	9000.0	10800.0
-	-	238.0	77.5	-	-	77.5				.95 ± 10	380-420	476.0	155.0
-	-	8.0	10.6	-	-	10.6				.60 ± 10	380-420	8.0	10.6
36.0	36.0	108.0	23.2	23.2	23.2	69.6				.84		108.0	69.6
		21.0				13.2				.85		21.0	13.2
		5.1				3.2				.85	380-420	5.1	3.2
		425.0				264.0				.85		425.0	264.0

START & WARM-UP

AVERAGE VARS		WATTS	AVERAGE WATTS				VARS	AVERAGE VARS				WATTS	AVERAGE	
1 MIN	15 MIN		1/2 MIN	5 MIN	15 MIN	1/2 MIN		5 MIN	15 MIN	1/2 MIN	5 MIN			
12.5		38.5	38.5	38.5	38.5	12.5	12.5	12.5	12.5	38.5	38.5	38.5		
12.2		37.4	37.4	37.4	37.4	12.2	12.2	12.2	12.2	37.4	37.4	37.4		
14.7		45.0	45.0	45.0	45.0	14.7	14.7	14.7	14.7	45.0	45.0	45.0		
14.7		45.0	45.0	45.0	45.0	14.7	14.7	14.7	14.7	45.0	45.0	45.0		
8.1		25.0	25.0	25.0	25.0	8.1	8.1	8.1	8.1	25.0	25.0	25.0		
		4620.0	4740.0	3950.0	3760.0	7610.0	7050.0	6460.0	6200.0	5210.0	5070.0	4990.0		
		476.0	476.0	476.0	476.0	155.0	155.0	155.0	155.0	476.0	476.0	476.0		
10.6		8.0	8.0	8.0	8.0	10.6	10.6	10.6	10.6	8.0	8.0	8.0		
		108.0	108.0	108.0	108.0	69.6	69.6	69.6	69.6	708.0	111.0	108.3		
		21.0	21.0	5.2	.7	13.2	13.2	3.2	.4	—	—	—		
		5.1	5.1	5.1	5.1	3.2	3.2	3.2	3.2	5.1	5.1	5.1		
		425.0	425.0	425.0	425.0	264.0	264.0	264.0	264.0	425.0	425.0	425.0		
		5974.0	5168.2	4973.7		7627.8	7027.8	6765.0		6286.0	5703.0			

TAXI

TAKE OFF

WATTS	AVERAGE WATTS			VARS	AVERAGE VARS			WATTS	AVERAGE WATTS		
	1/2 MIN	5 MIN	15 MIN		1/2 MIN	5 MIN	15 MIN		1/2 MIN	5 MIN	15 MIN
38.5	38.5	38.5	38.5	12.5	12.5	12.5	12.5	38.5	38.5	38.5	38.5
37.4	37.4	37.4	37.4	12.2	12.2	12.2	12.2	37.4	37.4	37.4	37.4
45.0	45.0	45.0	45.0	14.7	14.7	14.7	14.7	45.0	45.0	45.0	45.0
45.0	45.0	45.0	45.0	14.7	14.7	14.7	14.7	45.0	45.0	45.0	45.0
25.0	25.0	25.0	25.0	8.1	8.1	8.1	8.1	25.0	25.0	25.0	25.0
5210.0	5070.0	4990.0	4420.0	7450.0	7300.0	6800.0	6730.0	5780.0	5350.0	5320.0	4750.0
476.0	476.0	476.0	476.0	155.0	155.0	155.0	155.0	476.0	476.0	476.0	476.0
8.0	8.0	8.0	8.0	10.6	10.6	10.6	10.6	8.0	8.0	8.0	8.0
108.0	111.0	108.3	108.0	69.6	69.4	62.6	69.6	108.0	111.0	108.6	108.2
—	—	—	—	—	—	—	—	21.0	21.0	5.2	.9
5.1	5.1	5.1	5.1	3.2	3.2	3.2	3.2	5.1	5.1	5.1	5.1
425.0	425.0	425.0	425.0	264.0	264.0	264.0	264.0	425.0	425.0	425.0	425.0
6286.0	5703.3	5633.0		7864.4	7364.6	7354.6		7187.0	6538.8	5963.9	

OPERATING CONDITIONS

TAKE OFF & CLIMB								CRUISE							
AVERAGE WATTS				VARS	AVERAGE VARS				WATTS	AVERAGE WATTS				VARS	VARS
1/2 MIN	5 MIN	15 MIN	1/2 MIN		5 MIN	15 MIN	1/2 MIN	5 MIN		30 MIN					
38.5	38.5	38.5		12.5	12.5	12.5	12.5	38.5	38.5	38.5	38.5	—	12.5		
37.4	37.4	37.4		12.2	12.2	12.2	12.2	37.4	37.4	37.4	37.4	—	12.2		
45.0	45.0	45.0		14.7	14.7	14.7	14.7	45.0	45.0	45.0	45.0	—	14.7		
45.0	45.0	45.0		14.7	14.7	14.7	14.7	45.0	45.0	45.0	45.0	—	14.7		
25.0	25.0	25.0		8.1	8.1	8.1	8.1	25.0	25.0	25.0	25.0	—	8.1		
5350.0	5320.0	4750.0		8040.0	8160.0	7620.0	7050.0	3615.0	3605.0	3300.0	3190.0		5990	6	
476.0	476.0	476.0		155.0	155.0	155.0	155.0	476.0	476.0	476.0	476.0		155.0	15	
8.0	8.0	8.0		10.6	10.6	10.6	10.6	8.0	8.0	8.0	8.0		10.6		
111.0	108.6	108.2		69.6	69.4	69.8	69.6	108.0	108.0	108.0	108.0		69.6		
21.0	5.2	.9		13.2	13.2	3.2	.4	21.0	21.0	10.4	0.7		13.2		
5.1	5.1	5.1		3.2	3.2	3.2	3.2	5.1	5.1	5.1	5.1		3.2		
425.0	425.0	425.0		264.0	264.0	264.0	264.0	425.0	425.0	425.0	425.0		264.0	2	
7187.0	6538.8	5963.9		8737.6	8188.0	7615.0		4839.0	4523.4	4403.7					

CRUISE					CRUISE - COMBAT								
FS	VARS	AVERAGE VARS			WATTS	AVERAGE WATTS			VARS	AVERAGE VARS			
		1/2 MIN	5 MIN	30 MIN		1/2 MIN	5 MIN	30 MIN		1/2 MIN	5 MIN	30 MIN	
-	12.5	12.5	12.5	12.5	38.5	38.5	38.5	38.5	12.5	12.5	12.5	12.5	
-	12.2	12.2	12.2	12.2	37.4	37.4	37.4	37.4	12.2	12.2	12.2	12.2	
-	14.7	14.7	14.7	14.7	45.0	45.0	45.0	45.0	14.7	14.7	14.7	14.7	
-	14.7	14.7	14.7	14.7	45.0	45.0	45.0	45.0	14.7	14.7	14.7	14.7	
-	8.1	8.1	8.1	8.1	25.0	25.0	25.0	25.0	8.1	8.1	8.1	8.1	
	5990	6000	5770	5660	3580.0	3490.0	3190.0	3018.0	5940.0	5950.0	5660.0	5530.0	
	155.0	155.0	155.0	155.0	476.0	476.0	476.0	476.0	155.0	155.0	155.0	155.0	
	10.6	10.6	10.6	10.6	8.0	8.0	8.0	8.0	10.6	10.6	10.6	10.6	
	69.6	69.6	69.6	69.6	108.0	108.0	108.0	108.0	69.6	69.6	69.6	69.6	
	13.2	13.2	6.4	0.4	21.0	21.0	10.4	0.7	13.2	13.2	6.4	0.4	
	3.2	3.2	3.2	3.2	5.1	5.1	5.1	5.1	3.2	3.2	3.2	3.2	
	2640	264.0	264.0	264.0	425.0	425.0	425.0	425.0	264.0	264.0	264.0	264.0	
	6577.8	6341.0	6225.0		4724.0	4413.4	4228.7		6527.8	6231.0	6095.0		

OMBAT

LANDING

VARS	AVERAGE VARS			WATTS	AVERAGE WATTS			VARS	AVERAGE VARS		
	1/2 MIN	3 MIN	30 MIN		1/2 MIN	2 MIN	5 MIN		1/2 MIN	2 MIN	5 MIN
12.5	12.5	12.5	12.5	38.5	38.5	38.5	38.5	12.5	12.5	12.5	12.5
12.2	12.2	12.2	12.2	37.4	37.4	37.4	37.4	12.2	12.2	12.2	12.2
14.7	14.7	14.7	14.7	45.0	45.0	45.0	45.0	14.7	14.7	14.7	14.7
14.7	14.7	14.7	14.7	45.0	45.0	45.0	45.0	14.7	14.7	14.7	14.7
8.1	8.1	8.1	8.1	25.0	25.0	25.0	25.0	8.1	8.1	8.1	8.1
40.0	5950.0	5660.0	5530.0	6570.0	6420.0	5610.0	5440.0	8700.0	8550.0	7910.0	7780.0
15.0	155.0	155.0	155.0	476.0	476.0	476.0	476.0	155.0	155.0	155.0	155.0
10.6	10.6	10.6	10.6	8.0	8.0	8.0	8.0	10.6	10.6	10.6	10.6
69.6	69.6	69.6	69.6	108.0	111.0	111.0	109.0	69.6	69.4	69.4	70.1
13.2	13.2	6.4	0.4	-	-	-	-	-	-	-	-
3.2	3.2	3.2	3.2	5.1	5.1	5.1	5.1	3.2	3.2	3.2	3.2
264.0	264.0	264.0	264.0	425.0	425.0	425.0	425.0	264.0	264.0	264.0	264.0
6527.8	6231.0	6095.0		7636.0	6826.0	5654.0		9114.4	8474.4	8345.1	

NG

AVERAGE VARS

VARS 1/2 MIN 2 MIN 5 MIN

VARS	1/2 MIN	2 MIN	5 MIN
12.5	12.5	12.5	12.5
12.2	12.2	12.2	12.2
14.7	14.7	14.7	14.7
14.7	14.7	14.7	14.7
8.1	8.1	8.1	8.1

EMERGENCY

AVERAGE WATTS

WATTS 1/2 MIN 5 MIN 30 MIN

WATTS	1/2 MIN	5 MIN	30 MIN
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

AVERAGE VARS

VARS 1/2 MIN 5 MIN 30 MIN

VARS	1/2 MIN	5 MIN	30 MIN
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

8700.0 8550.0 7910.0 7780.0

155.0 155.0 155.0 155.0

10.6 10.6 10.6 10.6

69.6 69.4 69.4 70.1

-

3.2 3.2 3.2 3.2

264.0 264.0 264.0 264.0

111.0 111.0 111.0 111.0

-

-

-

69.4 69.4 69.4 69.4

-

-

-

9114.4 8474.4 8345.1

111.0 111.0 111.0

69.4 69.4 69.4

SHT. 2

200 V 3PHASE					115 V 1 PHASE			PF	VOLT REG.	FREQ RANGE	CONNECTED LOAD		ITEM NO.	WATTS	A 1/2
TOTAL	Ø1	Ø2	Ø3	TOTAL	VA	WATTS	VAR				WATTS	VAR			
127.5				79.0				.85			128.0	79.0			
500.0	1215.0	1215.0	1215.0	3645.0				.90							
306.0				190.0				.85							
110.0				68.5				.85							
381.0				236.0				.85			381.0	236.0			
200.0								1.0			200.0	-			
212.0				132.0				.85			212.0	132.0			
128.0				79.0				.85			128.0	79.0			
85.0				52.6				.85			85.0	52.6			
42.5				26.3				.85			42.5	26.3			
38.2				23.5				.85			38.2	23.5			
51.0				31.6				.85	I 4	380-420	51.0	31.6			
162.0				100.0				.85			162.0	100.0			
362.0				224.0				.85		380-1000	362.0	224.0			
255.0				158.0				.85		380-1000	255.0	158.0			
127.0				79.0				.85			127.0	79.0			
127.0				79.0				.85			127.0	79.0			
85.0				53.0				.85			85.0	53.0			
147.0				91.0				.85			147.0	91.0			
600.0				372.0				.85			600.0	372.0			
425.0				263.4				.85			425.0	263.4			
340.0				210.0				.85			340.0	210.0			

* LEADING P.F.

LOADING & ANCHOR

START & WAVE

WATTS	AVERAGE WATTS.			VARS	AVERAGE VARS			WATTS	AVERAGE WATTS.			VARS
	1/2 MIN	5 MIN	15 MIN		1/2 MIN	5 MIN	15 MIN		1/2 MIN	5 MIN	15 MIN	
								127.5	127.5	127.5	127.5	
								7500.0	555.0	555.0	555.0	36
								306.0	306.0	306.0	306.0	1
								110.0	110.0	110.0	110.0	
								381.0	590.0	423.0	390.0	2
								200.0	1000.0	400.0	227.0	
								212.0	212.0	212.0	212.0	10
								128.0	128.0	128.0	128.8	
								85.0	85.0	85.0	85.0	
								42.5	42.5	42.5	42.5	
								38.2	38.2	38.2	38.2	
								51.0	51.0	51.0	51.0	
								162.0	162.0	162.0	162.0	10
								362.0	362.0	362.0	362.0	2
								255.0	255.0	255.0	255.0	15
								127.0	127.0	127.0	127.0	
								127.0	127.0	127.0	127.0	
								85.0	85.0	85.0	85.0	
								147.0	147.0	147.0	147.0	
								600.0	600.0	600.0	600.0	3
								425.0	425.0	425.0	425.0	2
								340.0	340.0	340.0	340.0	2
								5875.2	5108.2	4902.2		

OPERATING

TAXI					TAKE OFF & CLIMB									
VARS	AVERAGE VARS				WATTS	AVERAGE WATTS				VARS	AVERAGE VARS			
	1/2 MIN	5 MIN	15 MIN			1/2 MIN	5 MIN	15 MIN			1/2 MIN	5 MIN	15 MIN	
79.0	79.0	79.0	79.0		127.5	127.5	127.5	127.5		79.0	79.0	79.0	79.0	
-3645.0	-270.0	-270.0	-270.0		7500.0	7500.0	7500.0	7500.0		-3645.0	-3645.0	-3645.0	-3645.0	
190.0	190.0	190.0	190.0		306.0	306.0	306.0	306.0		190.0	190.0	190.0	190.0	
68.5	68.5	68.5	68.5		110.0	110.0	110.0	110.0		68.5	68.5	68.5	68.5	
236.0	236.0	236.0	236.0		381.0	381.0	381.0	381.0		236.0	236.0	236.0	236.0	
-	-	-	-		200.0	200.0	200.0	200.0		-	-	-	-	
132.0	132.0	132.0	132.0		212.0	212.0	212.0	212.0		132.0	132.0	132.0	132.0	
79.0	79.0	79.0	79.0		128.0	128.0	128.0	128.0		79.0	79.0	79.0	79.0	
52.6	52.6	52.6	52.6		85.0	85.0	85.0	85.0		52.6	52.6	52.6	52.6	
26.3	26.3	26.3	26.3		42.5	42.5	42.5	42.5		26.3	26.3	26.3	26.3	
23.5	23.5	23.5	23.5		38.2	38.2	38.2	38.2		23.5	23.5	23.5	23.5	
31.6	31.6	31.6	31.6		51.0	51.0	51.0	51.0		31.6	31.6	31.6	31.6	
100.0	100.0	100.0	100.0		162.0	162.0	162.0	162.0		100.0	100.0	100.0	100.0	
224.0	224.0	224.0	224.0		362.0	362.0	362.0	362.0		224.0	224.0	224.0	224.0	
158.0	158.0	158.0	158.0		255.0	255.0	255.0	255.0		158.0	158.0	158.0	158.0	
79.0	79.0	79.0	79.0		127.0	127.0	127.0	127.0		79.0	79.0	79.0	79.0	
79.0	79.0	79.0	79.0		127.0	127.0	127.0	127.0		79.0	79.0	79.0	79.0	
53.0	53.0	53.0	53.0		85.0	85.0	85.0	85.0		53.0	53.0	53.0	53.0	
91.0	91.0	91.0	91.0		147.0	147.0	147.0	147.0		91.0	91.0	91.0	91.0	
372.0	372.0	372.0	372.0		600.0	600.0	600.0	600.0		372.0	372.0	372.0	372.0	
263.4	263.4	263.4	263.4		425.0	425.0	425.0	425.0		263.4	263.4	263.4	263.4	
210.0	210.0	210.0	210.0		340.0	340.0	340.0	340.0		210.0	210.0	210.0	210.0	
	2277.9	2277.9	2277.9			11811.2	11811.2	11811.2			1097.1	1097.1	1097.1	

START & WARM-UP

TAXI

START & WARM-UP						TAXI							
WATTS			VARS	AVERAGE			VARS	WATTS			VARS	AVERAGE	
1/2 MIN	5 MIN			1/2 MIN	5 MIN	15 MIN		1/2 MIN	5 MIN	15 MIN		1/2 MIN	5 MIN
7.5	127.5		79.0	79.0	79.0	79.0	127.5	127.5	127.5	127.5	79.0	79.0	79.0
0	555.0		3645.0	270.0	270.0	270.0	7800.0	555.0	555.0	555.0	3645.0	270.0	270.0
0	306.0		190.0	190.0	190.0	190.0	306.0	306.0	306.0	306.0	190.0	190.0	190.0
0	110.0		68.5	68.5	68.5	68.5	110.0	110.0	110.0	110.0	68.5	68.5	68.5
0	390.0		236.0	366.0	262.0	242.0	381.0	381.0	381.0	381.0	236.0	236.0	236.0
0	227.0		-	-	-	-	200.0	200.0	200.0	200.0	-	-	-
0	212.0		132.0	132.0	132.0	132.0	212.0	212.0	212.0	212.0	132.0	132.0	132.0
0	128.8		79.0	79.0	79.0	79.0	128.0	128.0	128.0	128.0	79.0	79.0	79.0
0	85.0		52.6	52.6	52.6	52.6	85.0	85.0	85.0	85.0	52.6	52.6	52.6
0	42.5		26.3	26.3	26.3	26.3	42.5	42.5	42.5	42.5	26.3	26.3	26.3
0	38.2		23.5	23.5	23.5	23.5	38.2	38.2	38.2	38.2	23.5	23.5	23.5
0	51.0		31.6	31.6	31.6	31.6	51.0	51.0	51.0	51.0	31.6	31.6	31.6
0	162.0		100.0	100.0	100.0	100.0	162.0	162.0	162.0	162.0	100.0	100.0	100.0
0	362.0		224.0	224.0	224.0	224.0	362.0	362.0	362.0	362.0	224.0	224.0	224.0
0	255.0		158.0	158.0	158.0	158.0	255.0	255.0	255.0	255.0	158.0	158.0	158.0
0	127.0		79.0	79.0	79.0	79.0	127.0	127.0	127.0	127.0	79.0	79.0	79.0
0	127.0		79.0	79.0	79.0	79.0	127.0	127.0	127.0	127.0	79.0	79.0	79.0
0	85.0		53.0	53.0	53.0	53.0	85.0	85.0	85.0	85.0	53.0	53.0	53.0
0	147.0		91.0	91.0	91.0	91.0	147.0	147.0	147.0	147.0	91.0	91.0	91.0
0	600.0		372.0	372.0	372.0	372.0	600.0	600.0	600.0	600.0	372.0	372.0	372.0
0	425.0		263.4	263.4	263.4	263.4	425.0	425.0	425.0	425.0	263.4	263.4	263.4
0	340.0		210.0	210.0	210.0	210.0	340.0	340.0	340.0	340.0	210.0	210.0	210.0
2	4362.2			2407.9	2303.9	2283.9		4866.2	4866.2	4866.2		2277.9	2277.9

OPERATING CONDITIONS

CRUISE

GE VARS		WATTS	AVERAGE WATTS			VARS	AVERAGE VARS			WATTS	AVERAGE	
MIN	5 MIN		1/2 MIN	5 MIN	30 MIN		1/2 MIN	5 MIN	30 MIN		1/2 MIN	5 MIN
9.0	79.0	127.5	127.5	127.5	127.5	79.0	79.0	79.0	79.0	127.5	127.5	127.5
45.0	3645.0	7500.0	7500.0	7500.0	7500.0	+3645.0	-3645.0	3645.0	3645.0	7500.0	7500.0	7500.0
90.0	190.0	306.0	306.0	306.0	306.0	190.0	190.0	190.0	190.0	306.0	306.0	306.0
68.5	68.5	110.0	110.0	110.0	110.0	68.5	68.5	68.5	68.5	110.0	110.0	110.0
6.0	236.0	381.0	381.0	381.0	381.0	236.0	236.0	236.0	236.0	381.0	381.0	381.0
-	-	200.0	200.0	200.0	200.0	-	-	-	-	200.0	200.0	200.0
2.0	132.0	212.0	212.0	212.0	212.0	132.0	132.0	132.0	132.0	212.0	212.0	212.0
9.0	79.0	128.0	128.0	128.0	128.0	79.0	79.0	79.0	79.0	128.0	128.0	128.0
2.6	52.6	85.0	85.0	85.0	85.0	52.6	52.6	52.6	52.6	85.0	85.0	85.0
6.3	26.3	42.5	42.5	42.5	42.5	26.3	26.3	26.3	26.3	42.5	42.5	42.5
3.5	23.5	38.2	38.2	38.2	38.2	23.5	23.5	23.5	23.5	38.2	38.2	38.2
1.6	31.6	51.0	51.0	51.0	51.0	31.6	31.6	31.6	31.6	51.0	51.0	51.0
0.0	100.0	162.0	162.0	162.0	162.0	100.0	100.0	100.0	100.0	162.0	162.0	162.0
4.0	224.0	362.0	362.0	362.0	362.0	224.0	224.0	224.0	224.0	362.0	362.0	362.0
8.0	158.0	255.0	255.0	255.0	255.0	158.0	158.0	158.0	158.0	255.0	255.0	255.0
9.0	79.0	127.0	127.0	127.0	127.0	79.0	79.0	79.0	79.0	127.0	127.0	127.0
9.0	79.0	127.0	127.0	127.0	127.0	79.0	79.0	79.0	79.0	127.0	127.0	127.0
8.0	53.0	85.0	85.0	85.0	85.0	53.0	53.0	53.0	53.0	85.0	85.0	85.0
0.0	91.0	147.0	147.0	147.0	147.0	91.0	91.0	91.0	91.0	147.0	147.0	147.0
2.0	372.0	600.0	600.0	600.0	600.0	372.0	372.0	372.0	372.0	600.0	600.0	600.0
3.4	263.4	425.0	425.0	425.0	425.0	263.4	263.4	263.4	263.4	425.0	425.0	425.0
0.0	210.0	340.0	340.0	340.0	340.0	210.0	210.0	210.0	210.0	340.0	340.0	340.0
7.1	-1097.1	11811.2	11811.2	11811.2	11811.2	-1097.1	-1097.1	-1097.1	-1097.1	11811.2	11811.2	11811.2

CRUISE - COMBAT

LANDING

WATTS	AVERAGE WATTS			VARS	AVERAGE VARS			AVERAGE WATTS				VARS
	1/2 MIN	5 MIN	30 MIN		1/2 MIN	5 MIN	30 MIN	1/2 MIN	2 MIN	5 MIN		
127.5	127.5	127.5	127.5	79.0	79.0	79.0	79.0	127.5	127.5	127.5	127.5	
7500.0	7500.0	7500.0	7500.0	3645.0	3645.0	3645.0	3645.0	7500.0	550.0	550.0	550.0	-30
306.0	306.0	306.0	306.0	190.0	190.0	190.0	190.0	306.0	306.0	306.0	306.0	1
110.0	110.0	110.0	110.0	68.5	68.5	68.5	68.5	110.0	110.0	110.0	110.0	
381.0	381.0	381.0	381.0	236.0	236.0	236.0	236.0	381.0	381.0	381.0	381.0	2
200.0	200.0	200.0	200.0	-	-	-	-	200.0	200.0	200.0	200.0	
212.0	212.0	212.0	212.0	132.0	132.0	132.0	132.0	212.0	212.0	212.0	212.0	1
128.0	128.0	128.0	128.0	79.0	79.0	79.0	79.0	128.0	128.0	128.0	128.0	
85.0	85.0	85.0	85.0	52.6	52.6	52.6	52.6	85.0	85.0	85.0	85.0	
42.5	42.5	42.5	42.5	26.3	26.3	26.3	26.3	42.5	42.5	42.5	42.5	
38.2	38.2	38.2	38.2	23.5	23.5	23.5	23.5	38.2	38.2	38.2	38.2	
51.0	51.0	51.0	51.0	31.6	31.6	31.6	31.6	51.0	51.0	51.0	51.0	
162.0	162.0	162.0	162.0	100.0	100.0	100.0	100.0	162.0	162.0	162.0	162.0	1
362.0	362.0	362.0	362.0	224.0	224.0	224.0	224.0	362.0	362.0	362.0	362.0	2
255.0	255.0	255.0	255.0	158.0	158.0	158.0	158.0	255.0	255.0	255.0	255.0	1
127.0	127.0	127.0	127.0	79.0	79.0	79.0	79.0	127.0	127.0	127.0	127.0	
127.0	127.0	127.0	127.0	79.0	79.0	79.0	79.0	127.0	127.0	127.0	127.0	
85.0	85.0	85.0	85.0	53.0	53.0	53.0	53.0	85.0	85.0	85.0	85.0	
147.0	147.0	147.0	147.0	91.0	91.0	91.0	91.0	147.0	147.0	147.0	147.0	
600.0	600.0	600.0	600.0	372.0	372.0	372.0	372.0	600.0	600.0	600.0	600.0	3
425.0	425.0	425.0	425.0	263.4	263.4	263.4	263.4	425.0	425.0	425.0	425.0	2
340.0	340.0	340.0	340.0	210.0	210.0	210.0	210.0	340.0	340.0	340.0	340.0	2
11811.2	11811.2	11811.2	11811.2	-1097.1	-1097.1	-1097.1	-1097.1	4866.2	4866.2	4866.2	4866.2	

AVERAGE VARS
1/2 MIN 5 MIN 30 MIN

AVERAGE WATTS
1/2 MIN 2 MIN 5 MIN

LANDING
AVERAGE VARS
1/2 MIN 2 MIN 5 MIN

AVERAGE WATTS
1/2 MIN

0 79.0 79.0

127.5 127.5 127.5 127.5

79.0 79.0 79.0 79.0

- -

0 3645.0 3645.0

7500.0 550.0 550.0 550.0

-3645.0 -270.0 -270.0 -270.0

- -

0 190.0 190.0

306.0 306.0 306.0 306.0

190.0 190.0 190.0 190.0

- -

5 68.5 68.5

110.0 110.0 110.0 110.0

68.5 68.5 68.5 68.5

- -

0 236.0 236.0

381.0 381.0 381.0 381.0

236.0 236.0 236.0 236.0

- -

- -

200.0 200.0 200.0 200.0

- - - -

- -

0 132.0 132.0

212.0 212.0 212.0 212.0

132.0 132.0 132.0 132.0

- -

0 79.0 79.0

128.0 128.0 128.0 128.0

79.0 79.0 79.0 79.0

- -

6 52.6 52.6

85.0 85.0 85.0 85.0

52.6 52.6 52.6 52.6

- -

3 26.3 26.3

42.5 42.5 42.5 42.5

26.3 26.3 26.3 26.3

- -

5 23.5 23.5

38.2 38.2 38.2 38.2

23.5 23.5 23.5 23.5

- -

6 31.6 31.6

51.0 51.0 51.0 51.0

31.6 31.6 31.6 31.6

- -

0 100.0 100.0

162.0 162.0 162.0 162.0

100.0 100.0 100.0 100.0

162.0 162.0

40 224.0 224.0

362.0 362.0 362.0 362.0

224.0 224.0 224.0 224.0

- -

0 158.0 158.0

255.0 255.0 255.0 255.0

158.0 158.0 158.0 158.0

- -

0 79.0 79.0

127.0 127.0 127.0 127.0

79.0 79.0 79.0 79.0

- -

0 79.0 79.0

127.0 127.0 127.0 127.0

79.0 79.0 79.0 79.0

- -

0 53.0 53.0

85.0 85.0 85.0 85.0

53.0 53.0 53.0 53.0

85.0 85.0

0 91.0 91.0

147.0 147.0 147.0 147.0

91.0 91.0 91.0 91.0

- -

0 372.0 372.0

600.0 600.0 600.0 600.0

372.0 372.0 372.0 372.0

- -

4 263.4 263.4

425.0 425.0 425.0 425.0

263.4 263.4 263.4 263.4

- -

0 210.0 210.0

340.0 340.0 340.0 340.0

210.0 210.0 210.0 210.0

- -

7.1 -1097.1 -1097.1

4866.2 4866.2 4866.2

2277.9 2277.9 2277.9

247.0

ELECTRICAL REQUIREMENTS PER UNIT

L	200 V 3PHASE							115 V 1 PHASE			PF	VOLT REG	FREQ. RANGE	CONNE LO WATTS
	WATTS				VARs			VA	WATTS	VARs				
	Ø1	Ø2	Ø3	TOTAL	Ø1	Ø2	Ø3							
0	494.0	494.0	494.0	1482.0	240.0	240.0	240.0	720.0			.90		1482.0	
	-	4.0	-	4.0	-	5.4	-	5.4			.60	380-420	4.0	
	2.4	2.4	2.4	7.2	5.5	5.5	5.5	16.5			.40	380-420	14.4	
0	-	-	-	1020.0	-	-	-	632.1			.85 ± 10	380-420	1020.0	
0	400.0	350.0	-	750.0	-	-	-	-			1.0 ± 10	380-420	750.0	
0	350.0	-	400.0	750.0	-	-	-	-			1.0 ± 10	380-420	750.0	
0	-	400.0	350.0	750.0	-	-	-	-			1.0 ± 10	380-420	750.0	
0	400.0	350.0	-	750.0	-	-	-	-			1.0 ± 10	380-420	750.0	
0	-	-	-	170.0	-	-	-	105.3			.85 ± 10	380-420	170.0	
0	235.0	235.0	235.0	705.0	144.2	144.2	144.2	436.7			.85 ± 5.0	380-420	2820.0	
0	-	-	-	200.0	-	-	-	-			1.0 ± 5.0	380-420	800.0	

VARS		TAXI											
15 MIN.		WATTS	AVERAGE WATTS			VARS	AVERAGE VARS			WATTS	AVERAGE		
			1/2 MIN.	5 MIN.	15 MIN.		1/2 MIN.	5 MIN.	15 MIN.		1/2 MIN.	5 MIN.	15 MIN.
720.0		1482.0	1482.0	1482.0	1482.0	720.0	720.0	720.0	720.0	1482.0	1482.0	1482.0	1482.0
5.4		4.6	4.0	4.0	4.0	5.4	5.4	5.4	5.4	4.0	4.0	4.0	4.0
33.0		14.4	14.4	14.4	14.4	33.0	33.0	33.0	33.0	14.4	14.4	14.4	14.4
632.1		1020.0	1020.0	1020.0	1020.0	632.1	632.1	632.1	632.1	1020.0	1020.0	1020.0	1020.0
-		750.0	750.0	750.0	750.0	-	-	-	-	750.0	750.0	750.0	750.0
-		750.0	750.0	750.0	750.0	-	-	-	-	750.0	750.0	750.0	750.0
-		750.0	750.0	750.0	750.0	-	-	-	-	750.0	750.0	750.0	750.0
-		750.0	750.0	750.0	750.0	-	-	-	-	750.0	750.0	750.0	750.0
-		-	-	-	-	-	-	-	-	-	-	-	-
-		-	-	-	-	-	-	-	-	2820.0	4920.0	3510.0	2910.0
-		-	-	-	-	-	-	-	-	800.0	2400.0	800.0	800.0
1390.0		5520.0	5520.0	5520.0	5520.0	1390.0	1390.0	1390.0	1390.0	12840.0	9830.0	9200.0	9200.0
2284.0		4866.0	4866.0	4866.0	4866.0	2278.0	2278.0	2278.0	2278.0	11811.0	11811.1	11811.1	11811.1
6765.0		6286.0	5703.0	5633.0	5633.0	7864.0	7365.0	7355.0	7355.0	7187.0	6539.0	5900.0	5900.0
1152.0		23500.0	23500.0	23500.0	23500.0	1014.0	1014.0	1014.0	1014.0	23500.0	23500.0	23500.0	23500.0
11591.0		40172.0	39589.0	39519.0	39519.0	12546.0	12047.0	12037.0	12037.0	55338.0	51680.0	50500.0	50500.0
		42100.0	41350.0	41300.0	41300.0					56800.0	53000.0	51600.0	51600.0

OPERATING CONDITIONS

TAKE OFF & CLIMB

CAL

WATTS	AVERAGE WATTS			VARS	AVERAGE VARS			WATTS	AVERAGE WATTS		
	1/2 MIN	5 MIN	15 MIN		1/2 MIN	5 MIN	15 MIN		1/2 MIN	5 MIN	30 MIN
1482.0	1482.0	1482.0	1482.0	720.0	720.0	720.0	720.0	1482.0	1482.0	1482.0	1482.0
4.0	4.0	4.0	4.0	5.4	5.4	5.4	5.4	4.0	4.0	4.0	4.0
14.4	14.4	14.4	14.4	33.0	33.0	33.0	33.0	14.4	14.4	14.4	14.4
1020.0	1020.0	1020.0	1020.0	632.1	632.1	632.1	632.1	1020.0	1020.0	1020.0	1020.0
750.0	750.0	750.0	750.0	—	—	—	—	750.0	750.0	750.0	750.0
750.0	750.0	750.0	750.0	—	—	—	—	750.0	750.0	750.0	750.0
750.0	750.0	750.0	750.0	—	—	—	—	750.0	750.0	750.0	750.0
750.0	750.0	750.0	750.0	—	—	—	—	750.0	750.0	750.0	750.0
—	—	—	—	—	—	—	—	—	—	—	—
2820.0	4920.0	3510.0	2910.0	1748.0	3049.2	2175.3	1803.5	2820.0	2820.0	2820.0	2820.0
800.0	2400.0	800.0	800.0	—	—	—	—	800.0	800.0	800.0	800.0
12840.0	9830.0	9230.0		4440.0	3566.0	3194.0		9140.0	9140.0	9140.0	
11811.0	11811.1	11811.0		-1097.0	-1097.0	-1097.0		11811.0	11811.0	11811.0	
7187.0	6539.0	5964.0		8738.0	8138.0	7615.0		4839.0	4523.0	4404.0	
23500.0	23500.0	23500.0		1014.0	1014.0	1014.0		6790.0	6790.0	6790.0	
55338.0	51680.0	50505.0		13095.0	11671.0	10726.0		32580.0	32264.0	32145.0	
56800.0	53000.0	51600.0						33900.0	33600.0	33450.0	

CRUISE

CRUISE - COMBAT

VARS	AVERAGE VARS			WATTS	AVERAGE WATTS			VARS	AVERAGE VARS		
	1/2 MIN	3 MIN	30 MIN		1/2 MIN	3 MIN	30 MIN		1/2 MIN	3 MIN	30 MIN
720.0	720.0	720.0	720.0	1482.0	1482.0	1482.0	1482.0	720.0	720.0	720.0	720.0
5.4	5.4	5.4	5.4	4.0	4.0	4.0	4.0	5.4	5.4	5.4	5.4
33.0	33.0	33.0	33.0	14.4	14.4	14.4	14.4	33.0	33.0	33.0	33.0
632.1	632.1	632.1	632.1	1020.0	1020.0	1020.0	1020.0	632.1	632.1	632.1	632.1
-	-	-	-	750.0	750.0	750.0	750.0	-	-	-	-
-	-	-	-	750.0	750.0	750.0	750.0	-	-	-	-
-	-	-	-	750.0	750.0	750.0	750.0	-	-	-	-
-	-	-	-	750.0	750.0	750.0	750.0	-	-	-	-
-	-	-	-	170.0	170.0	170.0	170.0	105.3	105.3	105.3	105.3
1748.0	1746.9	1746.9	1746.9	2820.0	8310.0	8310.0	8310.0	1748.0	5147.8	5147.8	5147.8
-	-	-	-	800.0	800.0	800.0	800.0	-	-	-	-
3137.0	3137.0	3137.0		14800.0	14800.0	14800.0		6644.0	6644.0	6644.0	
-1097.0	-1097.0	-1097.0		11811.0	11811.0	11811.0		-1097.0	-1097.0	-1097.0	
6578.0	6341.0	6225.0		4724.0	4413.0	4229.0		6578.0	6231.0	6095.0	
1014.0	1014.0	1014.0		6790.0	6790.0	6790.0		1014.0	1014.0	1014.0	
9632.0	9395.0	9279.0		38125.0	37814.0	37630.0		13089.0	12792.0	12656.0	
				40300.0	39950.0	39750.0					

CRUISE - COMBAT

WATTS
MIN

AVERAGE WATTS
1/2 MIN 3 MIN 30 MIN

2.0	720.0	720.0	720.0	720.0
0	5.4	5.4	5.4	5.4
4	33.0	33.0	33.0	33.0
0.0	632.1	632.1	632.1	632.1
0.0	-	-	-	-
0.0	-	-	-	-
0.0	-	-	-	-
0.0	-	-	-	-
0.0	105.3	105.3	105.3	105.3
0.0	1748.0	5147.8	5147.8	5147.8
0.0	-	-	-	-
0.0	6644.0	6644.0	6644.0	6644.0
0.0	-1097.0	-1097.0	-1097.0	-1097.0
0.0	6528.0	6231.0	6095.0	6095.0
0.0	1014.0	1014.0	1014.0	1014.0
0.0	13089.0	12792.0	12656.0	12656.0
0.0				

LANDING

AVERAGE WATTS
1/2 MIN 2 MIN 3 MIN

WATTS

AVERAGE WATTS
1/2 MIN 2 MIN 5 MIN

1482.0	1482.0	1482.0	1482.0
4.0	4.0	4.0	4.0
14.4	14.4	14.4	14.4
1020.0	1020.0	1020.0	1020.0
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
2520.0	2520.0	2520.0	2520.0
4866.0	4866.0	4866.0	4866.0
7636.0	6826.0	6654.0	6654.0
23500.0	23500.0	23500.0	23500.0
38522.0	37112.0	37540.0	37540.0
40850.0	39900.0	39100.0	39100.0

AVERAGE VARS
 1/2 MIN 2 MIN 5 MIN

EMERGENCY
 AVERAGE WATTS
 WATTS 1/2 MIN 5 MIN 30 MIN
 VARS AVERAGE VARS
 1/2 MIN 5 MINS 30 MINS

0.0 720.0 720.0 720.0

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4 5.4 5.4 5.4

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3.0 33.0 33.0 33.0

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2.1 632.1 632.1 632.1

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1390.0 1390.0 1390.0

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2278.0 2278.0 2278.0

247.0 247.0 247.0 153.0 153.0 153.0

9114.0 8474.0 8345.0

111.0 111.0 111.0 69.4 69.4 69.4

1014.0 1014.0 1014.0

674.5 674.5 674.5 409.7 409.7 409.7

13796.0 13156.0 13027.0

1032.5 1032.5 1032.5 632.1 632.1 632.1

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1210.0 1210.0 1210.0

CHART
LOAD ANALYSIS
D.C.

LOADING & ANCHOR AVERAGE AMPS					START & WARM-UP AVERAGE AMPS					TAXI AVERAGE AMPS				
AMPS	5MIN	2MIN	15MIN	MIN	AMPS	5MIN	2MIN	15MIN	MIN	AMPS	5MIN	2MIN	15MIN	MIN
.7	.7	.7	.7		.7	.7	.7	.7		.7	.7	.7	.7	
.2	.2	.2	.2		-	-	-	-		-	-	-	-	
.2	.2	.2	.2		-	-	-	-		-	-	-	-	
.2	.2	.2	.2		-	-	-	-		-	-	-	-	
.2	.2	.2	.2		-	-	-	-		-	-	-	-	
-	-	-	-		-	-	-	-		-	-	-	-	
-	-	-	-		-	-	-	-		-	-	-	-	
-	-	-	-		-	-	-	-		.2	.2	-	-	
.5	.5	.5	.5		.5	.5	.5	.5		.5	.5	.5	.5	
.3	.3	.3	.3		.3	.3	.3	.3		.3	.3	.3	.3	
.4	.4	.4	.4		.4	.4	.1	-		-	-	-	-	
.4	.4	.4	.4		.4	.4	.1	-		-	-	-	-	
.2	.2	-	-		-	-	-	-		-	-	-	-	
-	-	-	-		.4	.4	-	-		-	-	-	-	
.6	.6	.6	.6		.6	.6	.6	.6		.6	.6	.6	.6	
3.9	3.9	3.9	3.9		3.3	3.3	2.3	2.1		2.3	2.3	2.1	2.1	

OPERATING CONDITIONS

PS		TAKE OFF & CLIMB					CRUISE					CRUISE COMBAT			
MIN	MIN	AVERAGE AMPS					AVERAGE AMPS					AVERAGE AMP			
		AMPS	5 MIN	2 MIN	15 MIN	MIN	AMPS	5 MIN	2 MIN	30 MIN	MIN	AMPS	5 MIN	2 MIN	30 MIN
7		.7	.7	.7	.7		.7	.7	.7	.7		.7	.7	.7	.7
		.2	.2	.2	.2		.2	.2	.2	.2		.2	.2	.2	.2
		-	-	-	-		-	-	-	-		-	-	-	-
		.2	.2	.2	.2		.2	.2	.2	.2		.2	.2	.2	.2
		.2	.2	.2	.2		.2	.2	.2	.2		.2	.2	.2	.2
		9.5	9.5	9.5	9.5		9.5	9.5	9.5	9.5		9.5	9.5	9.5	9.5
		.7	.7	-	-		-	-	-	-		-	-	-	-
		-	-	-	-		.2	.2	-	-		-	-	-	-
5.		.5	.5	.5	-		-	-	-	-		-	-	-	-
3		.3	.3	.3	.3		.3	.3	.3	.3		.3	.3	.3	.3
		.4	.4	.4	.4		.4	.4	.4	.4		.4	.4	.4	.4
		.4	.4	.4	.4		.4	.4	.4	.4		.4	.4	.4	.4
		.2	.2	.2	.2		.2	.2	.2	.2		.2	.2	.2	.2
		.4	.4	.4	.4		.4	.4	.4	.4		.4	.4	.4	.4
6		.6	.6	.6	.6		.6	.6	.6	.6		.6	.6	.6	.6
1		14.3	14.3	13.6	13.1		13.3	13.3	13.1	13.1		13.1	13.1	13.1	13.1

MIN	CRUISE COMBAT AVERAGE AMPS				LANDING AVERAGE AMPS.				MIN	EMERGENCY AVERAGE AMPS			
	AMPS	.5 MIN	2 MIN	30MIN	AMPS	.5 MIN	2 MIN	5 MIN		AMPS	.5 MIN	2 MIN	30MIN
	.7	.7	.7	.7	.7	.7	.7	.7		.7	.7	.7	.7
	.2	.2	.2	.2	.2	.2	.2	.2		-	-	-	-
	-	-	-	-	-	-	-	-		-	-	-	-
	.2	.2	.2	.2	.2	.2	.2	.2		-	-	-	-
	.2	.2	.2	.2	.2	.2	.2	.2		-	-	-	-
	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5		1.5	1.5	1.5	1.5
	-	-	-	-	-	-	-	-		-	-	-	-
	-	-	-	-	.2	.2	-	-		-	-	-	-
	-	-	-	-	.5	.5	.5	.5		-	-	-	-
	.3	.3	.3	.3	.3	.3	.3	.3		-	-	-	-
	.4	.4	.4	.4	.4	.4	.4	.4		-	-	-	-
	.4	.4	.4	.4	.4	.4	.4	.4		-	-	-	-
	.2	.2	.2	.2	.2	.2	.2	.2		.2	.2	.2	.2
	.4	.4	.4	.4	.4	.4	.4	.4		-	-	-	-
	.6	.6	.6	.6	.6	.6	.6	.6		-	-	-	-
	13.1	13.1	13.1	13.1	13.8	13.8	13.6	13.6		2.4	2.4	2.4	2.4

OPERATING CONDITIONS

TAKE OFF & CLIMB					CRUISE					CRUISE COMBAT				
AVERAGE AMPS					AVERAGE AMPS					AVERAGE AMPS				
PS	5 MIN	2 MIN	15 MIN	MIN	AMPS	5 MIN	2 MIN	30 MIN	MIN	AMPS	5 MIN	2 MIN	30 MIN	AMPS
2	.2	.2	.2		.2	.2	.2	.2		.2	.2	.2	.2	.2
0	11.0	11.0	11.0		11.0	11.0	11.0	11.0		11.0	11.0	11.0	11.0	11.0
0	19.0	19.0	19.0		19.0	19.0	19.0	19.0		19.0	19.0	19.0	19.0	19.0
7	.7	.2	-		-	-	-	-		-	-	-	-	.7
4	.4	.4	.4		.4	.4	.4	.4		.4	.4	.4	.4	.4
2	.2	.2	.2		.2	.2	.2	.2		.2	.2	.2	.2	.2
0	2.0	.5	.1		-	-	-	-		-	-	-	-	-
	-	-	-		-	-	-	-		-	-	-	-	5.1
	-	-	-		-	-	-	-		-	-	-	-	1.0
	-	-	-		-	-	-	-		6.2	6.2	6.2	3.0	3.0
5	33.5	31.5	30.9		30.8	30.8	30.8	30.8		37.0	37.0	37.0	33.8	40.6

TIONS

CRUISE				CRUISE COMBAT				LANDING						
AVERAGE AMPS				AVERAGE AMPS				AVERAGE AMPS.						
MIN	2 MIN	30 MIN	MIN	AMPS	5 MIN	2 MIN	30MIN	AMPS	5 MIN	2 MIN	5 MIN	MIN	AMPS	5
.2	.2	.2		.2	.2	.2	.2	.2	.2	.2	.2		.2	
11.0	11.0	11.0		11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0		-	
19.0	19.0	19.0		19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0		-	
-	-	-		-	-	-	-	.7	.7	.7	.7		-	
.4	.4	.4		.4	.4	.4	.4	.4	.4	.4	.4		-	
.2	.2	.2		.2	.2	.2	.2	.2	.2	.2	.2		-	
-	-	-		-	-	-	-	-	-	-	-		-	
-	-	-		-	-	-	-	5.1	5.1	5.1	5.1		-	
-	-	-		-	-	-	-	1.0	1.0	1.0	1.0		-	
-	-	-		6.2	6.2	6.2	3.0	3.0	3.0	3.0	3.0		NE4	
30.8	30.8	30.8		37.0	37.0	37.0	33.8	40.6	40.6	40.6	40.6		.2	

CRUISE COMBAT				LANDING					EMERGENCY				
AVERAGE AMPS				AVERAGE AMPS.					AVERAGE AMPS				
5 MIN	2 MIN	30MIN		AMPS	5 MIN	2 MIN	5 MIN	MIN	AMPS	5 MIN	2 MIN	30MIN	MIN
.2	.2	.2		.2	.2	.2	.2		.2	.2	.2	.2	
11.0	11.0	11.0		11.0	11.0	11.0	11.0		-	-	-	-	
19.0	19.0	19.0		19.0	19.0	19.0	19.0		-	-	-	-	
-	-	-		.7	.7	.7	.7		-	-	-	-	
.4	.4	.4		.4	.4	.4	.4		-	-	-	-	
.2	.2	.2		.2	.2	.2	.2		-	-	-	-	
-	-	-		-	-	-	-		-	-	-	-	
-	-	-		-	-	-	-		-	-	-	-	
-	-	-		5.1	5.1	5.1	5.1		-	-	-	-	
-	-	-		1.0	1.0	1.0	1.0		-	-	-	-	
6.2	6.2	3.0		3.0	3.0	3.0	3.0		NEG	-	-	-	-
37.0	37.0	33.8		40.6	40.6	40.6	40.6		.2	.2	.2	.2	

SHEET 3

EQUIPMENT	PART DESIGNATION	N° OF UNITS	AMPS PER UNIT	OPERATING TIME MINS	LOADING & ANCHOR AVERAGE AMPS			
					AMPS	5 MIN	2 MIN	15 MIN
HEATING, VENT, DE-ICING								
RAM AIR INLET CONT VALVE	7-2252-3	2	.6		-	-	-	-
RADAR NOSE INLET CONT VALVE	7-2252-201	1	.6		-	-	-	-
AIR COND MAIN CONTROL VALVE	7-2252-2	1	1.0		-	-	-	-
AIR COND EXTERNAL CONT RELAY	CS-R-122	1	.2		.2	.2	.2	.2
AIR MODULATOR RELAY	CS-R-122	1	.2		-	-	-	-
FLOW AUGMENTOR VALVE	7-2254-3	1	1.0		1.0	1.0	1.0	1.0
C/P SHUT-OFF VALVE		1	.4		-	-	-	-
RAIN REPEL AIR CONT VALVE	7-2252-22	1	1.0		-	-	-	-
DUMP SOLENOID		1	.4		-	-	-	-
GROUND CONTROL RELAY	M.S. 25024-1	1	.35		.4	.4	.4	.4
ENGINE AIR COND S/O VALVE	7-2295-55	2	.8		-	-	-	-
ENGINE AIR COND RELAY	CS-R-133	2	.2		-	-	-	-
AIR FLOW SHUT-OFF RELAY	CS-R-122	1	.2		.2	.2	.2	.2
VISOR HEAT		2	1.5		-	-	-	-
CANOPY DE-ICING RELAY	7-2052-15	4	.15		.6	.6	.6	.6
AIR VALVE		1	.32		-	-	-	-
DE-ICING SOLENOID		1	1.0		-	-	-	-
TIME DELAY RELAY		1	2.0		-	-	-	-
ICE DETECTOR		3	15.0		-	-	-	-
DE-ICING CONTROLLER		1	10.0		-	-	-	-
DE-ICING DISTRIBUTOR		2	6.0		-	-	-	-
PARTING STRIP RELAY	M.S. 24143-1	2	.5		-	-	-	-
ENGINE ANTI-ICING RELAY	CS-R-133	2	.2		-	-	-	-
ENGINE ANTI-ICING VALVE		2	6.0		-	-	-	-
					2.4	2.4	2.4	2.4

ANCHOR			START & WARM-UP					TAXI					TAKE OFF &		
AMPS			AVERAGE AMPS					AVERAGE AMPS					AVERAGE		
15 MIN	MIN		AMPS	5 MIN	2 MIN	15 MIN	MIN	AMPS	5 MIN	2 MIN	15 MIN	MIN	AMPS	5 MIN	2 MIN
-			-	-	-	-		1.2	1.2	-	-		1.2	1.2	-
-			-	-	-	-		.6	.6	-	-		.6	.6	-
-			-	-	-	-		1.0	1.0	-	-		1.0	1.0	-
2	.2		.2	.2	.2	.2		-	-	-	-		-	-	-
-			-	-	-	-		.2	.2	.2	.2		.2	.2	.2
1.0			1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	-
-			-	-	-	-		-	-	-	-		.4	.4	-
-			NEG	-	-	-		-	-	-	-		-	-	-
-			-	-	-	-		.4	.4	.4	.4		.4	.4	.4
4	.4		.4	.4	.4	.4		.4	.4	.4	.4		.4	.4	-
-			-	-	-	-		.8	.8	.8	.8		.8	.8	.8
-			-	-	-	-		.2	.2	.2	.2		.2	.2	.2
.2			.2	.2	.2	.2		.2	.2	.2	.2		.2	.2	-
-			-	-	-	-		3.0	3.0	3.0	3.0		3.0	3.0	3.0
6	.6		.6	.6	.6	.6		.6	.6	.6	.6		.6	.6	.6
-			-	-	-	-		-	-	-	-		.3	.3	.3
-			-	-	-	-		-	-	-	-		1.0	1.0	1.0
-			-	-	-	-		-	-	-	-		2.0	2.0	2.0
*			30.0	30.0	22.0	22.0		30.0	30.0	22.0	22.0		45.0	45.0	33.0
-			10.0	10.0	10.0	10.0		10.0	10.0	10.0	10.0		10.0	10.0	10.0
-			12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0		12.0	12.0	12.0
-			1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0
-			.4	.4	.4	.4		.4	.4	.4	.4		.4	.4	.4
-			-	-	-	-		-	-	-	-		NEG	-	-
2.4			55.8	55.8	47.8	47.8		63.0	63.0	52.2	52.2		81.7	81.7	64.9

OPERATING CONDITIONS														
OFF & CLIMB				CRUISE					CRUISE COMBAT					A
AVERAGE AMPS				AVERAGE AMPS					AVERAGE AMPS					A
1 MIN	2 MIN	15 MIN	MIN	AMPS	5 MIN	2 MIN	30 MIN	MIN	AMPS	5 MIN	2 MIN	30 MIN	AMPS	5 MIN
2	-	-		1.2	1.2	-	-		1.2	1.2	-	-	1.2	1.2
5	-	-		.6	.6	-	-		.6	.6	-	-	.6	.6
10	-	-		1.0	1.0	-	-		1.0	1.0	-	-	1.0	1.0
-	-	-		-	-	-	-		-	-	-	-	-	-
.2	.2	.2		.2	.2	.2	.2		.2	.2	.2	.2	.2	.2
1.0	-	-		-	-	-	-		-	-	-	-	1.0	1.0
.4	-	-		-	-	-	-		-	-	-	-	.4	.4
-	-	-		-	-	-	-		-	-	-	-	NEG	-
.4	.4	.4		.4	.4	.4	.4		.4	.4	.4	.4	.4	.4
.4	-	-		-	-	-	-		-	-	-	-	-	-
.8	.8	.8		.8	.8	.8	.8		.8	.8	.8	.8	.8	.8
.2	.2	.2		.2	.2	.2	.2		.2	.2	.2	.2	.2	.2
.2	-	-		-	-	-	-		-	-	-	-	.2	.2
3.0	3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
.6	.6	.6		.6	.6	.6	.6		.6	.6	.6	.6	.6	.6
.3	.3	.3		-	-	-	-		-	-	-	-	.3	.3
1.0	1.0	1.0		-	-	-	-		-	-	-	-	1.0	1.0
2.0	2.0	2.0		-	-	-	-		-	-	-	-	2.0	2.0
33.0	33.0	33.0		-	-	-	-		-	-	-	-	45.0	45.0
10.0	10.0	10.0		-	-	-	-		-	-	-	-	10.0	10.0
12.0	12.0	12.0		-	-	-	-		-	-	-	-	12.0	12.0
1.0	1.0	1.0		-	-	-	-		-	-	-	-	1.0	1.0
.4	.4	.4		-	-	-	-		-	-	-	-	.4	.4
-	-	-		NEG	-	-	-		-	-	-	-	NEG	-
64.9	64.9	64.9		8.0	8.0	5.2	5.2		8.0	8.0	5.2	5.2	81.3	81.3

PS		CRUISE COMBAT AVERAGE AMPS				LANDING AVERAGE AMPS.					EMERGENCY AVERAGE AMP			
0 MIN	MIN	AMPS	5 MIN	2 MIN	30MIN	AMPS	5 MIN	2 MIN	5 MIN	MIN	AMPS	5 MIN	2 MIN	30
-		1.2	1.2	-	-	1.2	1.2	-	-		-	-	-	
-		.6	.6	-	-	.6	.6	-	-		-	-	-	
-		1.0	1.0	-	-	1.0	1.0	-	-		-	-	-	
-		-	-	-	-	-	-	-	-		-	-	-	
.2		.2	.2	.2	.2	.2	.2	.2	.2		-	-	-	
-		-	-	-	-	1.0	1.0	-	-		-	-	-	
-		-	-	-	-	.4	.4	-	-		-	-	-	
-		-	-	-	-	NE4	-	-	-		-	-	-	
.4		.4	.4	.4	.4	.4	.4	.4	.4		-	-	-	
-		-	-	-	-	-	-	-	-		-	-	-	
.8		.8	.8	.8	.8	.8	.8	.8	.8		-	-	-	
.2		.2	.2	.2	.2	.2	.2	.2	.2		-	-	-	
-		-	-	-	-	.2	.2	-	-		-	-	-	
3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		-	-	-	
.6		.6	.6	.6	.6	.6	.6	.6	.6		-	-	-	
-		-	-	-	-	.3	.3	.3	.3		-	-	-	
-		-	-	-	-	1.0	1.0	1.0	1.0		-	-	-	
-		-	-	-	-	2.0	2.0	2.0	2.0		-	-	-	
-		-	-	-	-	45.0	45.0	33.0	33.0		-	-	-	
-		-	-	-	-	10.0	10.0	10.0	10.0		-	-	-	
-		-	-	-	-	12.0	12.0	12.0	12.0		-	-	-	
-		-	-	-	-	1.0	1.0	1.0	1.0		-	-	-	
-		-	-	-	-	.4	.4	.4	.4		-	-	-	
-		-	-	-	-	NE4					-	-	-	
.2		8.0	8.0	5.2	5.2	81.3	81.3	64.9	64.9		-	-	-	

CRUISE			LANDING					EMERGENCY				
COMBAT			AVERAGE AMPS.					AVERAGE AMPS				
5 MIN	2 MIN	30MIN	AMPS	5 MIN	2 MIN	5 MIN	MIN	AMPS	5 MIN	2 MIN	30MIN	MIN
1.2	-	-	1.2	1.2	-	-		-	-	-	-	
.6	-	-	.6	.6	-	-		-	-	-	-	
1.0	-	-	1.0	1.0	-	-		-	-	-	-	
-	-	-	-	-	-	-		-	-	-	-	
.2	.2	.2	.2	.2	.2	.2		-	-	-	-	
-	-	-	1.0	1.0	-	-		-	-	-	-	
-	-	-	.4	.4	-	-		-	-	-	-	
-	-	-	NE4	-	-	-		-	-	-	-	
.4	.4	.4	.4	.4	.4	.4		-	-	-	-	
-	-	-	-	-	-	-		-	-	-	-	
.8	.8	.8	.8	.8	.8	.8		-	-	-	-	
.2	.2	.2	.2	.2	.2	.2		-	-	-	-	
-	-	-	.2	.2	-	-		-	-	-	-	
3.0	3.0	3.0	3.0	3.0	3.0	3.0		-	-	-	-	
.6	.6	.6	.6	.6	.6	.6		-	-	-	-	
-	-	-	.3	.3	.3	.3		-	-	-	-	
-	-	-	1.0	1.0	1.0	1.0		-	-	-	-	
-	-	-	2.0	2.0	2.0	2.0		-	-	-	-	
-	-	-	45.0	45.0	33.0	33.0		-	-	-	-	
-	-	-	10.0	10.0	10.0	10.0		-	-	-	-	
-	-	-	12.0	12.0	12.0	12.0		-	-	-	-	
-	-	-	1.0	1.0	1.0	1.0		-	-	-	-	
-	-	-	.4	.4	.4	.4		-	-	-	-	
-	-	-	NE4					-	-	-	-	
8.0	5.2	5.2	81.3	81.3	64.9	64.9		-	-	-	-	

SHEET 4

EQUIPMENT	PART DESIGNATION	N ^o OF UNITS	AMPS PER UNIT	OPERATING TIME MINS	LOADING & ANCHOR AVERAGE AMPS			
					AMPS	5MIN	2MIN	15MIN
					<u>J. IGNITION</u>			
ENGINE IGNITERS		2	10.0	-	-	-	-	
IGNITION RELAY	CS-R-122	2	.2	-	-	-	-	
<u>K. ENGINE CONTROLS</u>								
FUEL CONTROL VALVE		2	.8	1.6	1.6	.4	-	
HEAT EXCH OIL COOLER VALVE		2	1.0	-	-	-	-	
ZONE NR1 EJECTOR VALVE		2	.5	-	-	-	-	
EJECTOR VALVE RELAY	CS-R-122	2	.2	-	-	-	-	
AFTERBURNER RELAY	CS-R-122	2	.2	-	-	-	-	
AFTERBURNER VALVE		2	7.0	-	-	-	-	
STARTING RELAY	M.S. 25024-1	2	.35	-	-	-	-	
MANUAL RESET RELAY	CS-R-122	2	.2	-	-	-	-	
STARTING POWER RELAY	CS-R-128	1	.3	-	-	-	-	
IGNITION RELAY	CS-R-122	2	.2	-	-	-	-	
<u>L. LIGHTING</u>								
HIGH ALTITUDE CONSOLE FLOODS		4	1.0	-	-	-	-	
EMERGENCY FLOODS		2	.3	-	-	-	-	
TAXI LIGHT		1	8.9	-	-	-	-	
LANDING LIGHT		1	8.9	-	-	-	-	
WING TIP LIGHT		2	.8	-	-	-	-	
FIN TIP LIGHT		2	1.1	-	-	-	-	
LANDING LIGHT RELAY	CS-R-122	1	.2	-	-	-	-	
TAXI & LANDING LT RELAY	CS-R-122	1	.2	-	-	-	-	
FLASHER		1	.5	-	-	-	-	
				1.6	1.6	.4	-	

OPERATING CONDITIONS

MPS		TAKE OFF & CLIMB AVERAGE AMPS					CRUISE AVERAGE AMPS					CRUISE COM AVERAGE AMPS			
15 MIN	MIN	AMPS	5 MIN	2 MIN	15 MIN	MIN	AMPS	5 MIN	2 MIN	30 MIN	MIN	AMPS	5 MIN	2 MIN	30
-		-	-	-	-		10.0	10.0	2.5	.2		10.0	10.0	2.5	
-		-	-	-	-		.2	.2	-	-		.2	.2	-	
-		-	-	-	-		1.6	1.6	1.6	1.6		1.6	1.6	1.6	
-		NEG.	-	-	-		NEG.	-	-	-		NEG.	-	-	
-		NEG.	-	-	-		NEG.	-	-	-		NEG.	-	-	
.4		.4	.4	.4	.4		.4	.4	.4	.4		.4	.4	.4	
-		.4	.4	-	-		.4	.4	-	-		.4	.4	-	
-		NEG.	-	-	-		NEG.	-	-	-		NEG.	-	-	
-		-	-	-	-		-	-	-	-		-	-	-	
-		-	-	-	-		-	-	-	-		-	-	-	
-		-	-	-	-		-	-	-	-		-	-	-	
-		-	-	-	-		-	-	-	-		-	-	-	
-		-	-	-	-		4.0	4.0	4.0	4.0		-	-	-	
-		-	-	-	-		.6	.6	.6	.6		-	-	-	
8.9		8.9	8.9	8.9	1.2		-	-	-	-		-	-	-	
-		8.9	8.9	8.9	1.2		-	-	-	-		-	-	-	
1.6		1.6	1.6	1.6	1.6		1.6	1.6	1.6	1.6		-	-	-	
2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		-	-	-	
-		.2	.2	.2	-		-	-	-	-		-	-	-	
.2		.2	.2	.2	-		-	-	-	-		-	-	-	
.5		.5	.5	.5	.5		.5	.5	.5	.5		-	-	-	
13.8		23.3	23.3	22.9	7.1		21.5	21.5	13.4	11.1		12.6	12.6	4.5	

MIN	CRUISE COMBAT AVERAGE AMPS				LANDING AVERAGE AMPS					EMERGENCY AVERAGE AMPS			
	AMPS	.5 MIN	2 MIN	30MIN	AMPS	.5 MIN	2 MIN	5 MIN	MIN	AMPS	.5 MIN	2 MIN	30MIN
	10.0	10.0	2.5	.2	10.0	10.0	2.5	1.0		10.0	10.0	2.5	.2
	.2	.2	-	-	.2	.2	-	-		.2	.2	-	-
	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6		-	-	-	-
	NE4	-	-	-	-	-	-	-		-	-	-	-
	NE4	-	-	-	NE4	-	-	-		-	-	-	-
	.4	.4	.4	.4	.4	.4	.4	.4		-	-	-	-
	.4	.4	-	-	-	-	-	-		-	-	-	-
	NE4	-	-	-	-	-	-	-		-	-	-	-
	-	-	-	-	-	-	-	-		-	-	-	-
	-	-	-	-	-	-	-	-		-	-	-	-
	-	-	-	-	-	-	-	-		-	-	-	-
	-	-	-	-	-	-	-	-		-	-	-	-
	-	-	-	-	-	-	-	-		-	-	-	-
	-	-	-	-	-	-	-	-		-	-	-	-
	-	-	-	-	-	-	-	-		-	-	-	-
	-	-	-	-	-	-	-	-		.6	.6	.6	.6
	-	-	-	-	8.9	8.9	8.9	8.9		-	-	-	-
	-	-	-	-	8.9	8.9	8.9	8.9		-	-	-	-
	-	-	-	-	1.6	1.6	1.6	1.6		-	-	-	-
	-	-	-	-	2.2	2.2	2.2	2.2		-	-	-	-
	-	-	-	-	.2	.2	.2	.2		-	-	-	-
	-	-	-	-	.2	.2	.2	.2		-	-	-	-
	-	-	-	-	.5	.5	.5	.5		-	-	-	-
	12.6	12.6	4.5	2.2	34.7	34.7	27.0	25.5		10.8	10.8	3.1	.8

CRUISE COMBAT			LANDING					EMERGENCY				
AVERAGE AMPS			AVERAGE AMPS.					AVERAGE AMPS				
MIN	2 MIN	30MIN	AMPS	5 MIN	2 MIN	5 MIN	MIN	AMPS	5 MIN	2 MIN	30MIN	MIN
10.0	2.5	.2	10.0	10.0	2.5	1.0		10.0	10.0	2.5	.2	
.2	-	-	.2	.2	-	-		.2	.2	-	-	
1.6	1.6	1.6	1.6	1.6	1.6	1.6		-	-	-	-	
-	-	-	-	-	-	-		-	-	-	-	
-	-	-	NEG	-	-	-		-	-	-	-	
.4	.4	.4	.4	.4	.4	.4		-	-	-	-	
.4	-	-	-	-	-	-		-	-	-	-	
-	-	-	-	-	-	-		-	-	-	-	
-	-	-	-	-	-	-		-	-	-	-	
-	-	-	-	-	-	-		-	-	-	-	
-	-	-	-	-	-	-		-	-	-	-	
-	-	-	-	-	-	-		-	-	-	-	
-	-	-	-	-	-	-		-	-	-	-	
-	-	-	-	-	-	-		-	-	-	-	
-	-	-	-	-	-	-		-	-	-	-	
-	-	-	-	-	-	-		.6	.6	.6	.6	
-	-	-	8.9	8.9	8.9	8.9		-	-	-	-	
-	-	-	8.9	8.9	8.9	8.9		-	-	-	-	
-	-	-	1.6	1.6	1.6	1.6		-	-	-	-	
-	-	-	2.2	2.2	2.2	2.2		-	-	-	-	
-	-	-	.2	.2	.2	.2		-	-	-	-	
-	-	-	.2	.2	.2	.2		-	-	-	-	
-	-	-	.5	.5	.5	.5		-	-	-	-	
2.6	4.5	2.2	34.7	34.7	27.0	25.5		10.8	10.8	3.1	.8	

CRUISE COMBAT			LANDING					EMERGENCY				
AVERAGE AMPS			AVERAGE AMPS.					AVERAGE AMPS				
.5 MIN	2 MIN	30MIN	AMPS	.5 MIN	2 MIN	5 MIN	MIN	AMPS	.5 MIN	2 MIN	30MIN	MIN
—	—	—	16.0	5.1	.1	—		—	—	—	—	
—	—	—	.2	.1	—	—		—	—	—	—	
—	—	—	—	—	—	—		—	—	—	—	
—	—	—	.2	.1	—	—		—	—	—	—	
—	—	—	—	—	—	—		—	—	—	—	
1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	
.5	.5	.5	.5	.5	.5	.5		—	—	—	—	
.2	.2	.2	.2	.2	.2	.2		—	—	—	—	
.4	.4	.4	.4	.4	.4	.4		—	—	—	—	
.4	.4	.4	.4	.4	.4	.4		—	—	—	—	
.2	.2	.2	.2	.2	.2	.2		.2	.2	.2	.2	
2.7	2.7	2.7	19.1	8.0	2.8	2.7		1.2	1.2	1.2	1.2	

SHEET 6

EQUIPMENT	PART DESIGNATION	N° OF UNITS	AMPS PER UNIT	OPERATING TIME MINS	LOADING & ANCHORING			
					AVERAGE AMPS			
					AMPS	5MIN	2MIN	15MIN
<u>G. FUEL & OIL</u>								
TANK LEVEL SENSING VALVE		14	.5		7.0	7.0	7.0	7.0
AIR PRESS REG. O/R VALVE		3	1.0		3.0	3.0	3.0	3.0
AIR PRESS RELIEF O/R VALVE		3	1.0		3.0	3.0	3.0	3.0
SERVICE CHECK IND. LIGHT	CS-I-107	2	.04		.1	.1	-	-
FULL & PARTIAL REFUEL RELAY	M.S. 25024-1	1	.4		.4	.4	.4	.4
REFUELLING INDIC. LIGHTS	CS-I-107	14	.04		.6	.6	.6	.6
L/P LOCK VALVE		2	5.0		NEG	-	-	-
ATTITUDE SENSOR		1						
RT. C.G. CONTROL UNIT		1			6.6	6.6	6.6	6.6
LEFT C.G. CONTROL UNIT		1			6.6	6.6	6.6	6.6
PUMP S/O CONTROL RELAY		2	.2		-	-	-	-
LOW LEVEL WARNG LIGHTS	CS-I-106	2	.17		-	-	-	-
PILOTS FUEL PROP. WARNG. LT	CS-I-108	1	.17		-	-	-	-
TANK NO 1 RELAY	M.S. 25024-1	1	.35		.4	.4	.4	.4
TANK NO 2 RELAY	M.S. 25024-1	1	.35		.4	.4	.4	.4
FUEL S/O RELAY	CS-R-122	2	.2		-	-	-	-
CROSS FEED VALVE		1	5.0		-	-	-	-
RIGHT FUEL SYS ISOL VALVE		1	5.0		-	-	-	-
LEFT FUEL SYS ISOL VALVE		1	5.0		-	-	-	-
EXT TANK JETT VALVE		1	1.0		-	-	-	-
EXT TANK JETT RELAY	M.S. 25024-1	1	.35		-	-	-	-
EXT TANK AIR S/O VALVE		1	1.0		-	-	-	-
					28.1	28.1	28.0	28.0

ANCHOR			START & WARM-UP					TAXI					TAKE OFF		
E AMPS			AVERAGE AMPS					AVERAGE AMPS					AVERAGE		
1 MIN	15 MIN	MIN	AMPS	5 MIN	2 MIN	15 MIN	MIN	AMPS	5 MIN	2 MIN	15 MIN	MIN	AMPS	5 MIN	2 MIN
7.0	7.0		-	-	-	-		-	-	-	-		-	-	-
3.0	3.0		-	-	-	-		-	-	-	-		-	-	-
3.0	3.0		-	-	-	-		-	-	-	-		-	-	-
-	-		-	-	-	-		-	-	-	-		-	-	-
.4	.4		-	-	-	-		-	-	-	-		-	-	-
.6	.6		-	-	-	-		-	-	-	-		-	-	-
-	-		NEG	-	-	-		NEG	-	-	-		NEG	-	-
6.6	6.6		6.6	6.6	6.6	6.6		6.6	6.6	6.6	6.6		6.6	6.6	6.6
6.6	6.6		6.6	6.6	6.6	6.6		6.6	6.6	6.6	6.6		6.6	6.6	6.6
-	-		-	-	-	-		-	-	-	-		-	-	-
-	-		-	-	-	-		-	-	-	-		-	-	-
.4	.4		.4	.4	.4	.4		.4	.4	.4	.4		-	-	-
.4	.4		.4	.4	.4	.4		.4	.4	.4	.4		-	-	-
-	-		-	-	-	-		-	-	-	-		-	-	-
-	-		NEG	-	-	-		NEG	-	-	-		NEG	-	-
-	-		NEG	-	-	-		NEG	-	-	-		NEG	-	-
-	-		-	-	-	-		-	-	-	-		-	-	-
-	-		-	-	-	-		-	-	-	-		-	-	-
-	-		-	-	-	-		-	-	-	-		1.0	1.0	1.0
8.0	28.0		14.0	14.0	14.0	14.0		14.0	14.0	14.0	14.0		14.2	14.2	14.2

OPERATING CONDITIONS

TAKE OFF & CLIMB					CRUISE					CRUISE COMBAT				
AVERAGE AMPS					AVERAGE AMPS					AVERAGE AMPS				
AMPS	5 MIN	2 MIN	15 MIN	MIN	AMPS	5 MIN	2 MIN	30 MIN	MIN	AMPS	5 MIN	2 MIN	30 MIN	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EG	-	-	-	-	NEG	-	-	-	-	NEG	-	-	-	NE
6.6	6.6	6.6	6.6	-	6.6	6.6	6.6	6.6	-	4.9	4.9	4.9	4.9	2
6.6	6.6	6.6	6.6	-	6.6	6.6	6.6	6.6	-	4.9	4.9	4.9	4.9	2
-	-	-	-	-	-	-	-	-	-	.4	.4	.4	.4	-
-	-	-	-	-	-	-	-	-	-	.3	.3	.3	.3	-
-	-	-	-	-	-	-	-	-	-	.2	.2	.2	.2	-
-	-	-	-	-	-	-	-	-	-	.4	.4	.4	.4	-
-	-	-	-	-	-	-	-	-	-	.4	.4	.4	.4	-
-	-	-	-	-	.2	.2	.2	.2	-	.2	.2	.2	.2	-
EG	-	-	-	-	NEG	-	-	-	-	NEG	-	-	-	N
EG	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	NEG	-	-	-	-	NEG	-	-	-	NE
-	-	-	-	-	-	-	-	-	-	1.0	1.0	1.0	1.0	1.0
-	-	-	-	-	-	-	-	-	-	.4	.4	.4	.4	.4
1.0	1.0	1.0	1.0	-	1.0	1.0	1.0	1.0	-	-	-	-	-	-
14.2	14.2	14.2	14.2	-	14.4	14.4	14.4	13.5	-	13.1	13.1	13.1	13.1	8.5

NG CONDITIONS

CRUISE					CRUISE COMBAT					LANDING			
AVERAGE AMPS					AVERAGE AMPS					AVERAGE AMPS.			
MIN	AMPS	.5 MIN	2 MIN	30 MIN	MIN	AMPS	.5 MIN	2 MIN	30 MIN	AMPS	.5 MIN	2 MIN	5 MIN
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
NEG	-	-	-	-	NEG	-	-	-	-	NEG	-	-	-
6.6	6.6	6.6	6.6	6.6	4.9	4.9	4.9	4.9	4.9	2.6	2.6	2.6	2.6
6.6	6.6	6.6	6.6	6.6	4.9	4.9	4.9	4.9	4.9	2.6	2.6	2.6	2.6
-	-	-	-	-	.4	.4	.4	.4	.4	.4	.4	.4	.4
-	-	-	-	-	.3	.3	.3	.3	.3	.3	.3	.3	.3
-	-	-	-	-	.2	.2	.2	.2	.2	.2	.2	.2	.2
-	-	-	-	-	.4	.4	.4	.4	.4	.4	.4	.4	.4
-	-	-	-	-	.4	.4	.4	.4	.4	.4	.4	.4	.4
.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2
NEG	-	-	-	-	NEG	-	-	-	-	NEG	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
NEG	-	-	-	-	NEG	-	-	-	-	NEG	-	-	-
-	-	-	-	-	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
-	-	-	-	-	.4	.4	.4	.4	.4	.4	.4	.4	.4
1.0	1.0	1.0	1.0	1.0	-	-	-	-	-	-	-	-	-
14.4	14.4	14.4	13.5	13.5	13.1	13.1	13.1	13.1	13.1	8.5	8.5	8.5	8.5

PS	CRUISE COMBAT					LANDING					EMERGENCY			
	MIN	AMPS	.5 MIN	2 MIN	30MIN	AMPS	.5 MIN	2 MIN	5 MIN	MIN	AMPS	.5 MIN	2 MIN	30MIN
-		-	-	-	-	-	-	-	-	-	-	-	-	-
-		-	-	-	-	-	-	-	-	-	-	-	-	-
-		-	-	-	-	-	-	-	-	-	-	-	-	-
-		-	-	-	-	-	-	-	-	-	-	-	-	-
-		-	-	-	-	-	-	-	-	-	-	-	-	-
-		-	-	-	-	-	-	-	-	-	-	-	-	-
-		-	-	-	-	-	-	-	-	-	-	-	-	-
-		-	-	-	-	-	-	-	-	-	-	-	-	-
-		NEG	-	-	-	NEG	-	-	-	-	-	-	-	-
6.6		4.9	4.9	4.9	4.9	2.6	2.6	2.6	2.6	-	-	-	-	-
6.5		4.9	4.9	4.9	4.9	2.6	2.6	2.6	2.6	-	-	-	-	-
-		.4	.4	.4	.4	.4	.4	.4	.4	-	-	-	-	-
-														
-		.3	.3	.3	.3	.3	.3	.3	.3	-	-	-	-	-
-		.2	.2	.2	.2	.2	.2	.2	.2	-	-	-	-	-
-		.4	.4	.4	.4	.4	.4	.4	.4	-	-	-	-	-
-		.4	.4	.4	.4	.4	.4	.4	.4	-	-	-	-	-
.2		.2	.2	.2	.2	.2	.2	.2	.2	-	-	-	-	-
-		NEG	-	-	-	NEG	-	-	-	-	-	-	-	-
-		-	-	-	-	-	-	-	-	-	-	-	-	-
-		NEG	-	-	-	NEG	-	-	-	-	-	-	-	-
-														
-		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
-		.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4
1.0		-	-	-	-	-	-	-	-	-	-	-	-	-
3.5		13.1	13.1	13.1	13.1	8.5	8.5	8.5	8.5	1.4	1.4	1.4	1.4	1.4

CRUISE COMBAT				LANDING					EMERGENCY				
AVERAGE AMPS				AVERAGE AMPS.					AVERAGE AMPS				
5 MIN	2 MIN	30MIN		AMPS	5 MIN	2 MIN	5 MIN	MIN	AMPS	5 MIN	2 MIN	30MIN	MIN
-	-	-		-	-	-	-		-	-	-	-	
-	-	-		-	-	-	-		-	-	-	-	
-	-	-		-	-	-	-		-	-	-	-	
-	-	-		-	-	-	-		-	-	-	-	
-	-	-		-	-	-	-		-	-	-	-	
-	-	-		-	-	-	-		-	-	-	-	
-	-	-		-	-	-	-		-	-	-	-	
-	-	-		-	-	-	-		-	-	-	-	
-	-	-		-	-	-	-		-	-	-	-	
-	-	-		NEG	-	-	-		-	-	-	-	
4.9	4.9	4.9		2.6	2.6	2.6	2.6		-	-	-	-	
4.9	4.9	4.9		2.6	2.6	2.6	2.6		-	-	-	-	
.4	.4	.4		.4	.4	.4	.4		-	-	-	-	
.3	.3	.3		.3	.3	.3	.3		-	-	-	-	
.2	.2	.2		.2	.2	.2	.2		-	-	-	-	
.4	.4	.4		.4	.4	.4	.4		-	-	-	-	
.4	.4	.4		.4	.4	.4	.4		-	-	-	-	
.2	.2	.2		.2	.2	.2	.2		-	-	-	-	
-	-	-		NEG	-	-	-		-	-	-	-	
-	-	-		-	-	-	-		-	-	-	-	
-	-	-		NEG	-	-	-		-	-	-	-	
1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	
.4	.4	.4		.4	.4	.4	.4		.4	.4	.4	.4	
-	-	-		-	-	-	-		-	-	-	-	
13.1	13.1	13.1		8.5	8.5	8.5	8.5		1.4	1.4	1.4	1.4	

OPERATING CONDITIONS

TAKE OFF & CLIMB				CRUISE					CRUISE COMBAT					
AVERAGE AMPS				AVERAGE AMPS					AVERAGE AMPS				AMPS	
5 MIN	2 MIN	15 MIN	MIN	AMPS	5 MIN	2 MIN	30 MIN	MIN	AMPS	5 MIN	2 MIN	30 MIN		AMPS
11.4	8.5	5.6		5.6	5.2	5.2	5.2		5.6	5.2	5.2	5.2		5.6
.9	.9	.9		.9	.9	.9	.9		.9	.9	.9	.9		.9
3.2	3.2	3.2		3.2	3.2	3.2	3.2		3.2	3.2	3.2	3.2		3.2
3.6	3.6	3.6		3.6	3.6	3.6	3.6		3.6	3.6	3.6	3.6		3.6
4.2	4.2	4.2		4.2	4.2	4.2	4.2		4.2	4.2	4.2	4.2		4.2
1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0
3.1	3.1	3.1		3.1	3.1	3.1	3.1		3.1	3.1	3.1	3.1		3.1
.7	.7	.7		.7	.7	.7	.7		.7	.7	.7	.7		.7
3.0	3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0		3.0
1.1	1.1	1.1		1.1	1.1	1.1	1.1		1.1	1.1	1.1	1.1		1.1
.1	.1	.1		.1	.1	.1	.1		.1	.1	.1	.1		.1
1.8	1.8	1.8		1.8	1.8	1.8	1.8		1.8	1.8	1.8	1.8		1.8
1.9	1.9	1.9		1.9	1.9	1.9	1.9		1.9	1.9	1.9	1.9		1.9
1.8	1.8	1.8		1.8	1.8	1.8	1.8		1.8	1.8	1.8	1.8		1.8
2.4	2.4	2.4		2.4	2.4	2.4	2.4		2.4	2.4	2.4	2.4		2.4
40.2	37.1	34.4		34.4	34.0	34.0	34.0		34.4	34.0	34.0	34.0		34.4

CRUISE COMBAT AVERAGE AMPS				LANDING AVERAGE AMPS.					EMERGENCY AVERAGE AMPS				
.5 MIN	2 MIN	30MIN		AMPS	.5 MIN	2 MIN	5 MIN	MIN	AMPS	.5 MIN	2 MIN	30MIN	MIN
5.2	5.2	5.2		5.6	11.4	11.4	7.7		11.4	11.4	11.4	11.4	
.9	.9	.9		.9	.9	.9	.9		.9	.9	.9	.9	
3.2	3.2	3.2		3.2	3.2	3.2	3.2		—	—	—	—	
3.6	3.6	3.6		3.6	3.6	3.6	3.6		—	—	—	—	
4.2	4.2	4.2		4.2	4.2	4.2	4.2		—	—	—	—	
1.0	1.0	1.0		1.0	1.0	1.0	1.0		—	—	—	—	
3.1	3.1	3.1		3.1	3.1	3.1	3.1		—	—	—	—	
.7	.7	.7		.7	.7	.7	.7		.7	.7	.7	.7	
3.0	3.0	3.0		3.0	3.0	3.0	3.0		—	—	—	—	
1.1	1.1	1.1		1.1	1.1	1.1	1.1		—	—	—	—	1
.1	.1	.1		.1	.1	.1	.1		—	—	—	—	
1.8	1.8	1.8		1.8	1.8	1.8	1.8		1.8	1.8	1.8	1.8	
1.9	1.9	1.9		1.9	1.9	1.9	1.9		—	—	—	—	
1.8	1.8	1.8		1.8	1.8	1.8	1.8		—	—	—	—	
2.4	2.4	2.4		2.4	2.4	2.4	2.4		—	—	—	—	
34.0	34.0	34.0		34.4	40.2	40.2	36.5		14.8	14.8	14.8	14.3	

ANCHOR AMPS		START & WARM-UP AVERAGE AMPS					TAXI AVERAGE AMPS					TAKE OFF & AVERAGE			OP
15 MIN	MIN	AMPS	.5 MIN	2 MIN	15 MIN	MIN	AMPS	.5 MIN	2 MIN	15 MIN	MIN	AMPS	.5 MIN	2 MIN	
-		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	
1.2		-	-	-	-		-	-	-	-		-	-	-	
-		1.2	1.2	1.2	1.2		1.2	1.2	1.2	1.2		1.2	1.2	1.2	
.2		-	-	-	-		-	-	-	-		-	-	-	
.6		.6	.6	.6	.6		.6	.6	.6	.6		.6	.6	.6	
.6		.6	.6	.6	.6		.6	.6	.6	.6		.6	.6	.6	
.2		.2	.2	.2	.2		.2	.2	.2	.2		.2	.2	.2	
2.8		3.6	3.6	3.6	3.6		3.6	3.6	3.6	3.6		3.6	3.6	3.6	

SHEET 9

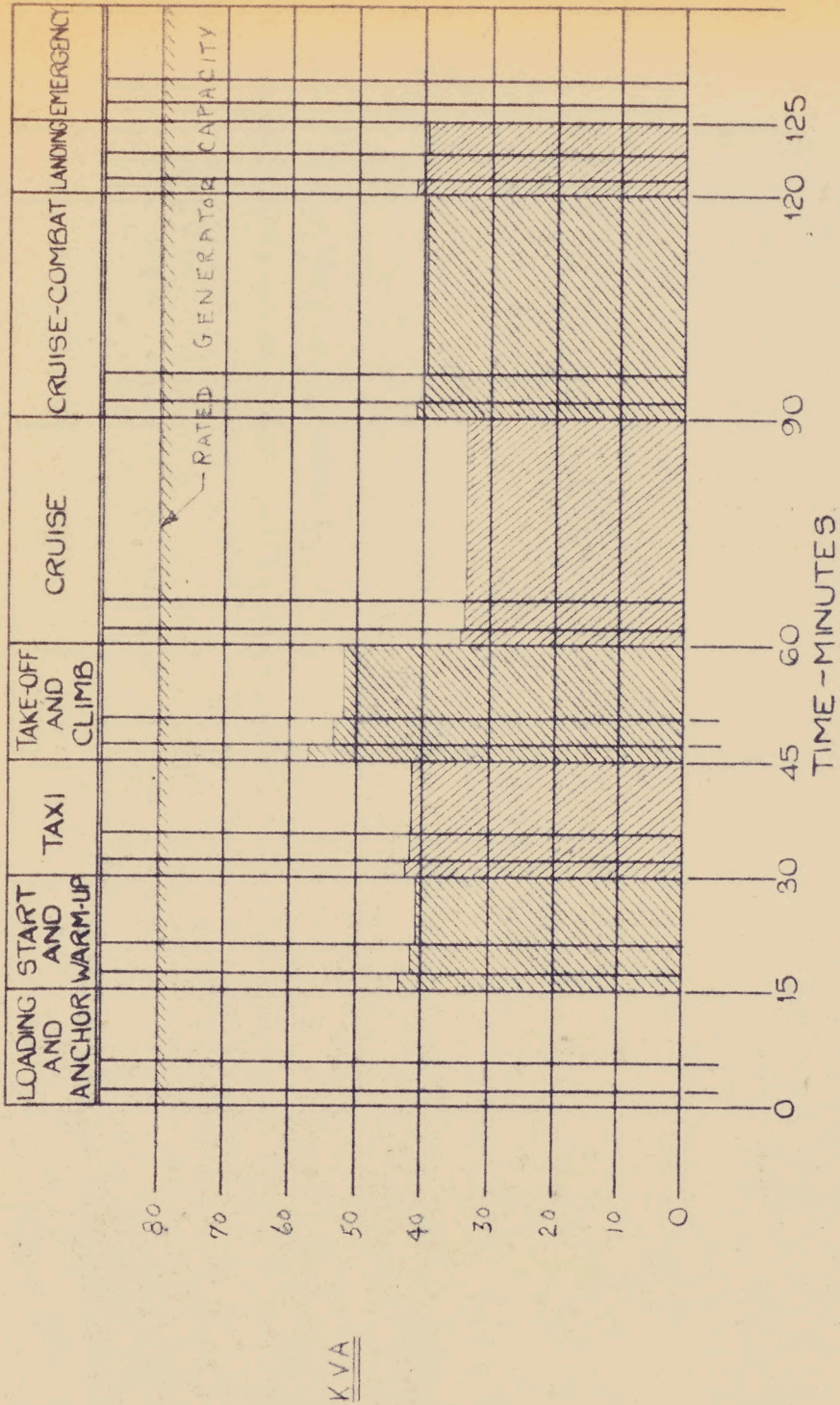
EQUIPMENT	PART DESIGNATION	N° OF UNITS	AMPS PER UNIT	OPERATING TIME MINS	LOADING & ANCHOR				
					AVERAGE AMPS				
					AMPS	5 MIN	2 MIN	15 MIN	MI
W. WARNING & EMERGENCY									
FIRE EXTINGUISHER		2	.75		NEG	-	-	-	
TIME DELAY		2	.1		NEG	-	-	-	
HYD BAY LOCK ON RELAY	M.S. 25024-1	1	.35		-	-	-	-	
2ND SHOT RELAY	M.S. 25024-1	1	.35		NEG	-	-	-	
CONTROL UNIT		3	.014						
FIRE WARNING LIGHT		3	.04						
FIRE PROTECTION RELAY	M.S. 25024-1	2	.35		.4	.4	.4	-	
CRASH RELAY	M.S. 25024-1	1	.35		-	-	-	-	
REAR C/P BAIL OUT WARN HORN		1	4.0						
BAIL OUT INDICATOR LIGHT	CS-C-109-3	2	.35						
MASTER WARNING CONTROL		1	.34		.3	.3	.3	.3	
MASTER WARNQ LIGHT (RED)		1	.35		.4	.4	.4	.4	
MASTER WARNQ LIGHT (AMBER)		1	.35		.4	.4	.4	.4	
ANNUNCIATOR BOX		1			.2	.2	.2	.2	
OXYGEN CAPACITANCE IND		1	.4		.4	.4	.4	.4	
CABIN PRESS WARNQ LIGHT	CS-I-108-24	1	.2		-	-	-	-	
					2.1	2.1	2.1	1.7	
		TOTAL	SHT 6		2.8	2.8	2.8	2.8	
			7		.9	.9	.9	.9	
			6		28.1	28.1	28.0	28.0	
			5		18.1	7.0	1.8	1.7	
			4		1.6	1.6	.4	-	
			3		2.4	2.4	2.4	2.4	
			2		30.9	30.9	30.9	30.9	
			1		3.9	3.9	3.9	3.9	
					90.8	79.7	73.2	72.3	

GE AMPS			START & WARM-UP AVERAGE AMPS					TAXI AVERAGE AMPS					TAKE OFF AVERAGE AMPS		
MIN	15 MIN	MIN	AMPS	5 MIN	2 MIN	15 MIN	MIN	AMPS	5 MIN	2 MIN	15 MIN	MIN	AMPS	5 MIN	2
-	-		NE4	-	-	-		NE4	-	-	-		NE4	-	
-	-		NE4	-	-	-		NE4	-	-	-		NE4	-	
-	-		-	-	-	-		-	-	-	-		.4	.4	
-	-		NE4	-	-	-		NE4	-	-	-		NE4	-	
.4	-		.4	.4	.4	-		.4	.4	.4	-		.4	.4	
-	-		-	-	-	-		-	-	-	-		-	-	
.3	.3		.3	.3	.3	.3		.3	.3	.3	.3		.3	.3	
.4	.4		.4	.4	.4	-		.4	.4	.4	-		.4	.4	
.4	.4		.4	.4	.4	-		.4	.4	.4	-		.4	.4	
.2	.2		.2	.2	.2	.2		.2	.2	.2	.2		.2	.2	
.4	.4		.4	.4	.4	.4		.4	.4	.4	.4		.4	.4	
-	-		-	-	-	-		-	-	-	-		.2	.2	
2.1	1.7		2.1	2.1	2.1	.9		2.1	2.1	2.1	.9		2.7	2.7	2
2.8	2.8		3.6	3.6	3.6	3.6		3.6	3.6	3.6	3.6		3.6	3.6	3
.9	.9		34.4	38.5	35.2	34.3		34.4	40.2	35.5	34.2		34.4	40.2	3
28.0	28.0		14.0	14.0	14.0	14.0		14.0	14.0	14.0	14.0		14.2	14.2	14
1.8	1.7		1.7	1.7	1.7	1.7		19.1	8.0	2.8	2.7		2.7	2.7	
.4	-		22.2	22.2	6.1	1.4		13.8	13.8	13.8	13.8		23.3	23.3	2
2.4	2.4		55.8	55.8	47.8	47.8		63.0	63.0	52.2	52.2		81.7	81.7	6
30.9	30.9		30.9	30.9	30.9	30.9		37.0	37.0	37.0	37.0		33.5	33.5	3
3.9	3.9		3.3	3.3	2.3	2.1		2.3	2.3	2.1	2.1		14.3	14.3	14
72.2	72.3		168.0	172.1	143.7	136.7		189.3	184.0	163.1	160.5		210.4	216.2	19

RATING		CONDITIONS															
LIMB	MPS	CRUISE						COMBAT						LANDING			
		AVERAGE AMPS						AVERAGE AMPS						AVERAGE AMPS			
		5 MIN	MIN	AMPS	5 MIN	2 MIN	30 MIN	MIN	AMPS	5 MIN	2 MIN	30 MIN	AMPS	5 MIN	2 MIN	5 MIN	
-		NEG	-	-	-		NEG	-	-	-		NEG	-	-			
-		NEG	-	-	-		NEG	-	-	-		NEG	-	-			
.4		.4	.4	.4	.4		.4	.4	.4	.4		.4	.4	.4			
-		NEG	-	-	-		NEG	-	-	-		NEG	-	-			
.4		.4	.4	.4	.4		.4	.4	.4	.4		.4	.4	.4			
-		-	-	-	-		-	-	-	-		-	-	-			
.3		.3	.3	.3	.3		.3	.3	.3	.3		.3	.3	.3			
-		.4	.4	.4	-		.4	.4	.4	-		.4	.4	.4			
-		.4	.4	.4	-		.4	.4	.4	-		.4	.4	.4			
.2		.2	.2	.2	.2		.2	.2	.2	.2		.2	.2	.2			
.4		.4	.4	.4	.4		.4	.4	.4	.4		.4	.4	.4			
.2		.2	.2	.2	.2		.2	.2	.2	.2		.2	.2	.2			
1.9		2.7	2.7	2.7	1.9		2.7	2.7	2.7	1.9		2.7	2.7	2.7	1.9		
3.6		3.6	3.6	3.6	3.6		3.6	3.6	3.6	3.6		3.6	3.6	3.6	3.6		
34.4		34.4	34.0	34.0	34.0		34.4	34.0	34.0	34.0		34.4	40.2	40.2	34.4		
14.2		14.4	14.4	14.4	13.5		13.1	13.1	13.1	13.1		8.5	8.5	8.5	8.5		
2.7		2.7	2.7	2.7	2.7		2.7	2.7	2.7	2.7		19.1	8.0	2.8	2.7		
7.1		21.5	21.5	13.4	11.1		12.6	12.6	4.5	2.2		34.7	34.7	27.0	27.0		
64.9		8.0	8.0	5.2	5.2		8.0	8.0	5.2	5.2		81.3	81.3	64.9	64.9		
30.9		30.8	30.8	30.8	30.8		37.0	37.0	37.0	33.8		40.6	40.6	40.6	40.6		
13.1		13.3	13.3	13.1	13.1		13.1	13.1	13.1	13.1		13.8	13.8	13.6	13.6		
72.8		131.4	131.0	119.9	115.9		127.2	126.8	115.9	109.6		238.7	233.4	203.9	199.6		

CRUISE			CRUISE COMBAT				LANDING					EMER		
AVERAGE AMPS			AVERAGE AMPS				AVERAGE AMPS.					AVERAGE		
2 MIN	30 MIN	MIN	AMPS	.5 MIN	2 MIN	30 MIN	AMPS	.5 MIN	2 MIN	5 MIN	MIN	AMPS	.5 MIN	2
-	-		NEG	-	-	-	NEG	-	-	-		NEG	-	
-	-		NEG	-	-	-	NEG	-	-	-		NEG	-	
.4	.4		.4	.4	.4	.4	.4	.4	.4	.4		.4	.4	
-	-		NEG	-	-	-	NEG	-	-	-		NEG	-	
.4	.4		.4	.4	.4	.4	.4	.4	.4	.4		.4	.4	
-	-		-	-	-	-	-	-	-	-		.4	.4	
.3	.3		.3	.3	.3	.3	.3	.3	.3	.3		.3	.3	
.4	-		.4	.4	.4	-	.4	.4	.4	-		.4	.4	
.4	-		.4	.4	.4	-	.4	.4	.4	-		-	-	
.2	.2		.2	.2	.2	.2	.2	.2	.2	.2		-	-	
.4	.4		.4	.4	.4	.4	.4	.4	.4	.4		-	-	
.2	.2		.2	.2	.2	.2	.2	.2	.2	.2		-	-	
2.7	1.9		2.7	2.7	2.7	1.9	2.7	2.7	2.7	1.9		1.9	1.9	
3.6	3.6		3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6		-	-	
34.0	34.0		34.4	34.0	34.0	34.0	34.4	40.2	40.2	36.5		14.8	14.8	
14.4	13.5		13.1	13.1	13.1	13.1	8.5	8.5	8.5	8.5		1.4	1.4	
2.7	2.7		2.7	2.7	2.7	2.7	19.1	8.0	2.8	2.7		1.2	1.2	
13.4	11.1		12.6	12.6	4.5	2.2	34.7	34.7	27.0	25.5		10.8	10.8	
5.2	5.2		8.0	8.0	5.2	5.2	81.3	81.3	64.9	64.9		-	-	
30.8	30.8		37.0	37.0	37.0	33.8	40.6	40.6	40.6	40.6		.2	.2	
13.1	13.1		13.1	13.1	13.1	13.1	13.8	13.8	13.6	13.6		2.4	2.4	
19.9	115.9		127.2	126.8	115.9	109.6	238.7	233.4	203.9	197.8		32.7	32.7	2

CRUISE COMBAT				LANDING				EMERGENCY					
AVERAGE AMPS				AVERAGE AMPS.				AVERAGE AMPS					
.5 MIN	2 MIN	30MIN		AMPS	.5 MIN	2 MIN	5 MIN	MIN	AMPS	.5 MIN	2 MIN	30MIN	MIN
-	-	-		NEG	-	-	-		NEG	-	-	-	
-	-	-		NEG	-	-	-		NEG	-	-	-	
.4	.4	.4		.4	.4	.4	.4		.4	.4	.4	.4	
-	-	-		NEG	-	-	-		NEG	-	-	-	
.4	.4	.4		.4	.4	.4	.4		.4	.4	.4	.4	
-	-	-		-	-	-	-		.4	.4	.4	.4	
.3	.3	.3		.3	.3	.3	.3		.3	.3	.3	-	
.4	.4	-		.4	.4	.4	-		.4	.4	.4	-	
.4	.4	-		.4	.4	.4	-		-	-	-	-	
.2	.2	.2		.2	.2	.2	.2		-	-	-	-	
.4	.4	.4		.4	.4	.4	.4		-	-	-	-	
.2	.2	.2		.2	.2	.2	.2		-	-	-	-	
2.7	2.7	1.9		2.7	2.7	2.7	1.9		1.9	1.9	1.9	1.2	
3.6	3.6	3.6		3.6	3.6	3.6	3.6		-	-	-	-	
34.0	34.0	34.0		34.4	40.2	40.2	36.5		14.8	14.8	14.8	14.8	
13.1	13.1	13.1		8.5	8.5	8.5	8.5		1.4	1.4	1.4	1.4	
2.7	2.7	2.7		19.1	8.0	2.8	2.7		1.2	1.2	1.2	1.2	
12.6	4.5	2.2		34.7	34.7	27.0	25.5		10.8	10.8	3.1	.8	
8.0	5.2	5.2		81.3	81.3	64.9	64.9		-	-	-	-	
37.0	37.0	33.8		40.6	40.6	40.6	40.6		.2	.2	.2	.2	
13.1	13.1	13.1		13.8	13.8	13.6	13.6		2.4	2.4	2.4	2.4	
126.8	115.9	109.6		238.7	233.4	203.9	197.8		32.7	32.7	25.0	22.0	

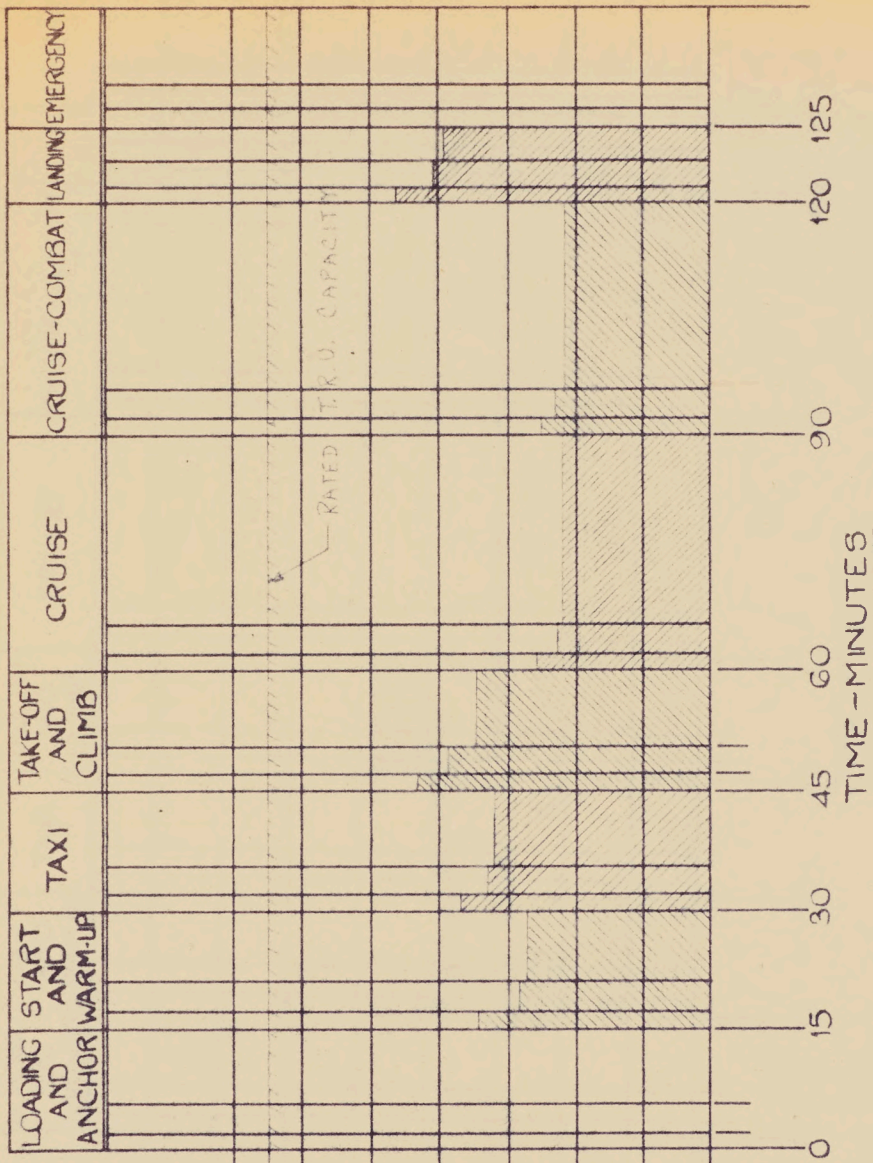


AVRO AIRCRAFT LIMITED.
GRAPH-ELECTRICAL LOAD ANALYSIS

A.C. LOAD

SPARROW II MISSILES

CF105 MK II



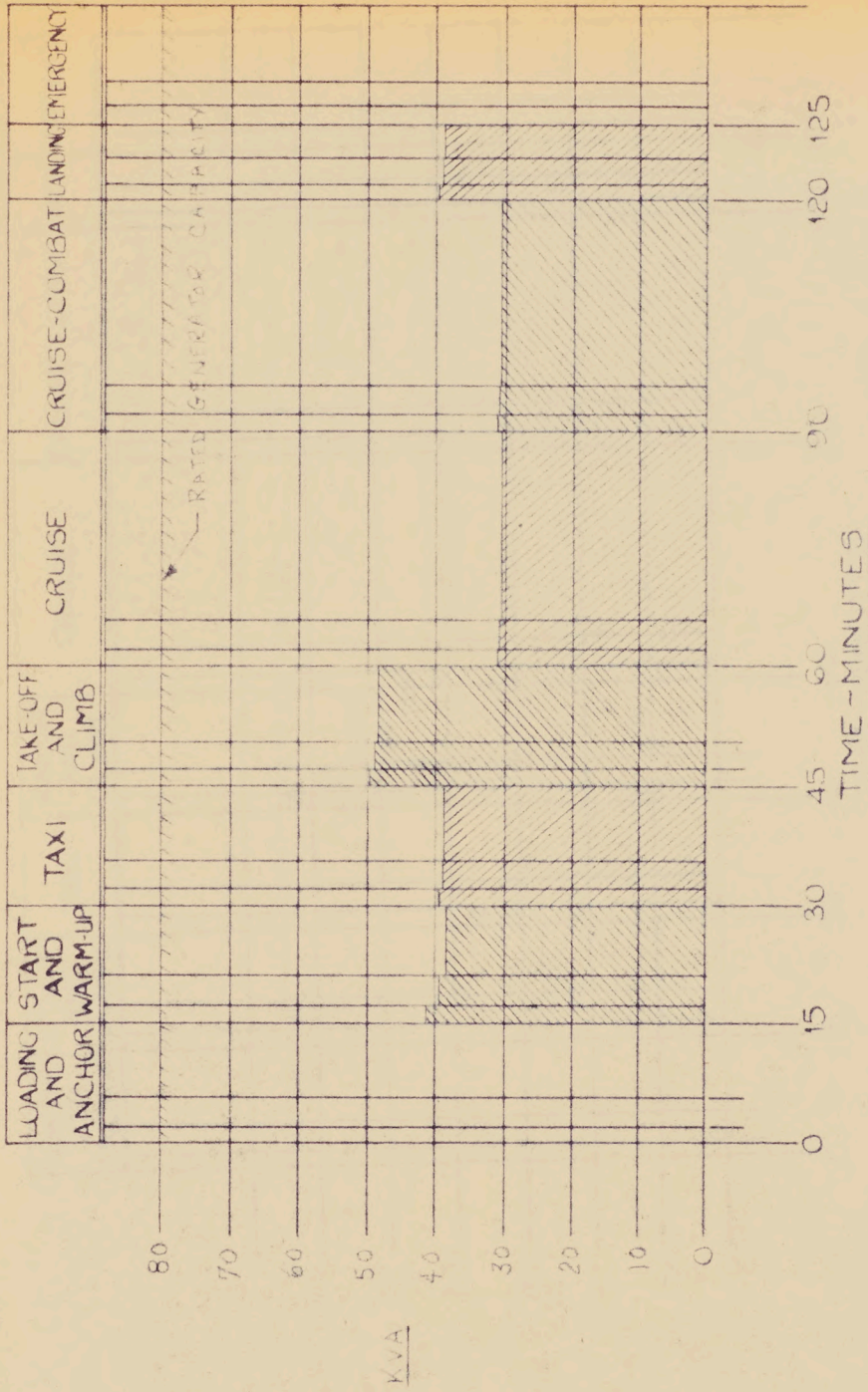
2

AVRO AIRCRAFT LIMITED.
GRAPH-ELECTRICAL LOAD ANALYSIS

CF105 MK II D.C. LOAD
SPARROW II MISSILES

AMPS

TIME - MINUTES

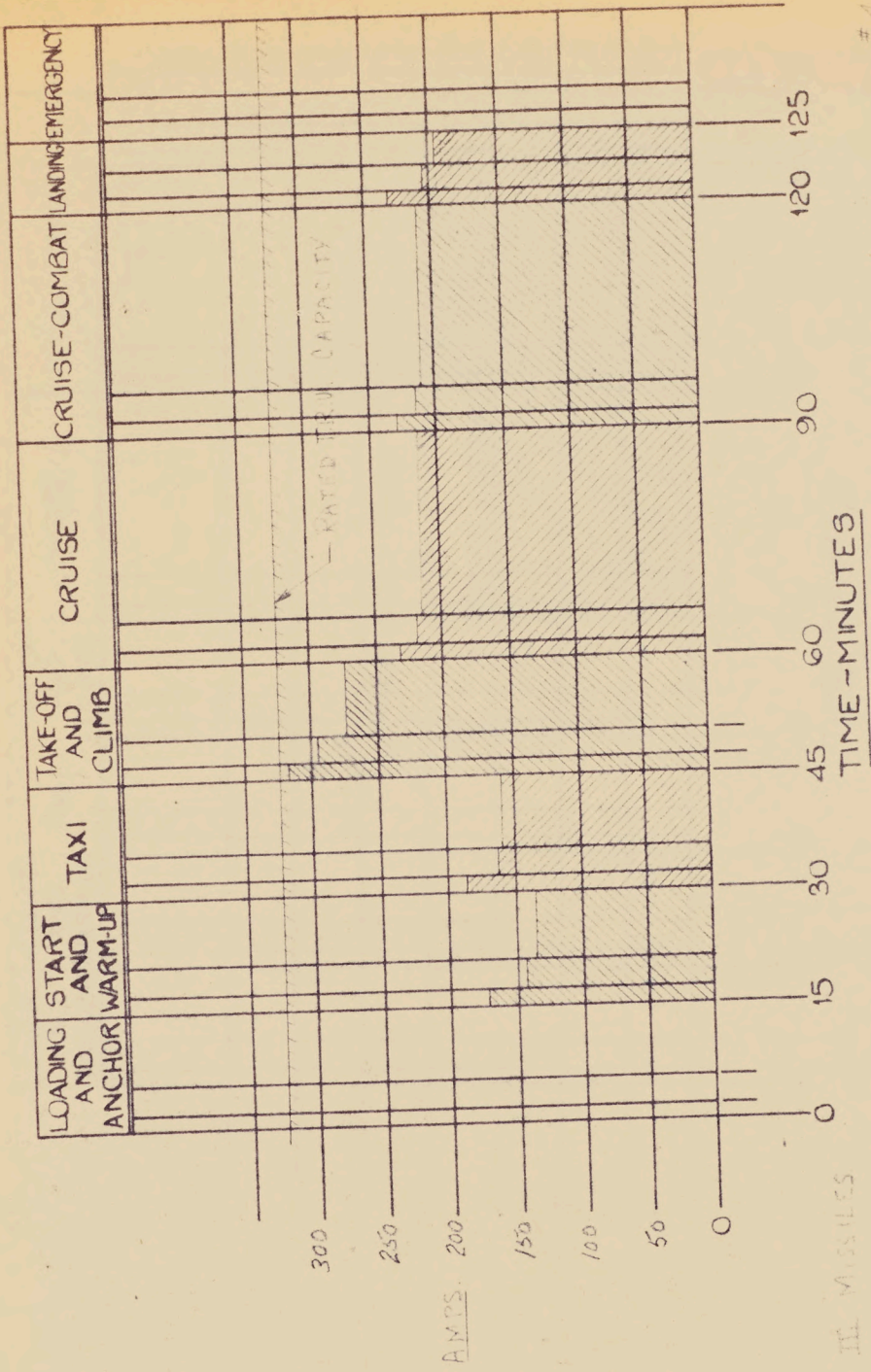


3

AVRO AIRCRAFT LIMITED.
GRAPH-ELECTRICAL LOAD ANALYSIS

A.C. LOAD

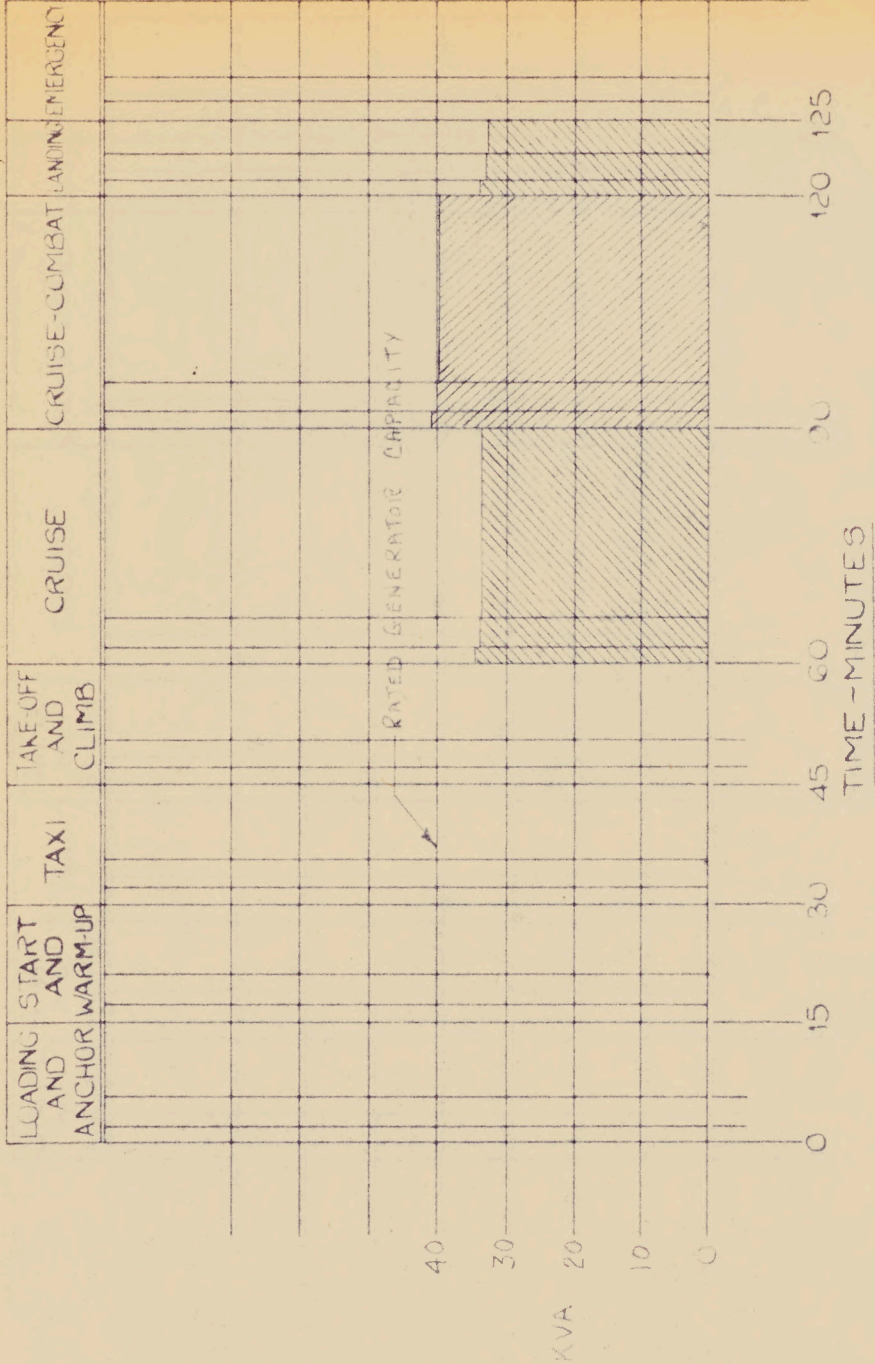
BE105 SPARROW III



CF 105
SPARROW III MISSILES

D.C. LOAD

AVRO AIRCRAFT LIMITED.
GRAPH-ELECTRICAL LOAD ANALYSIS



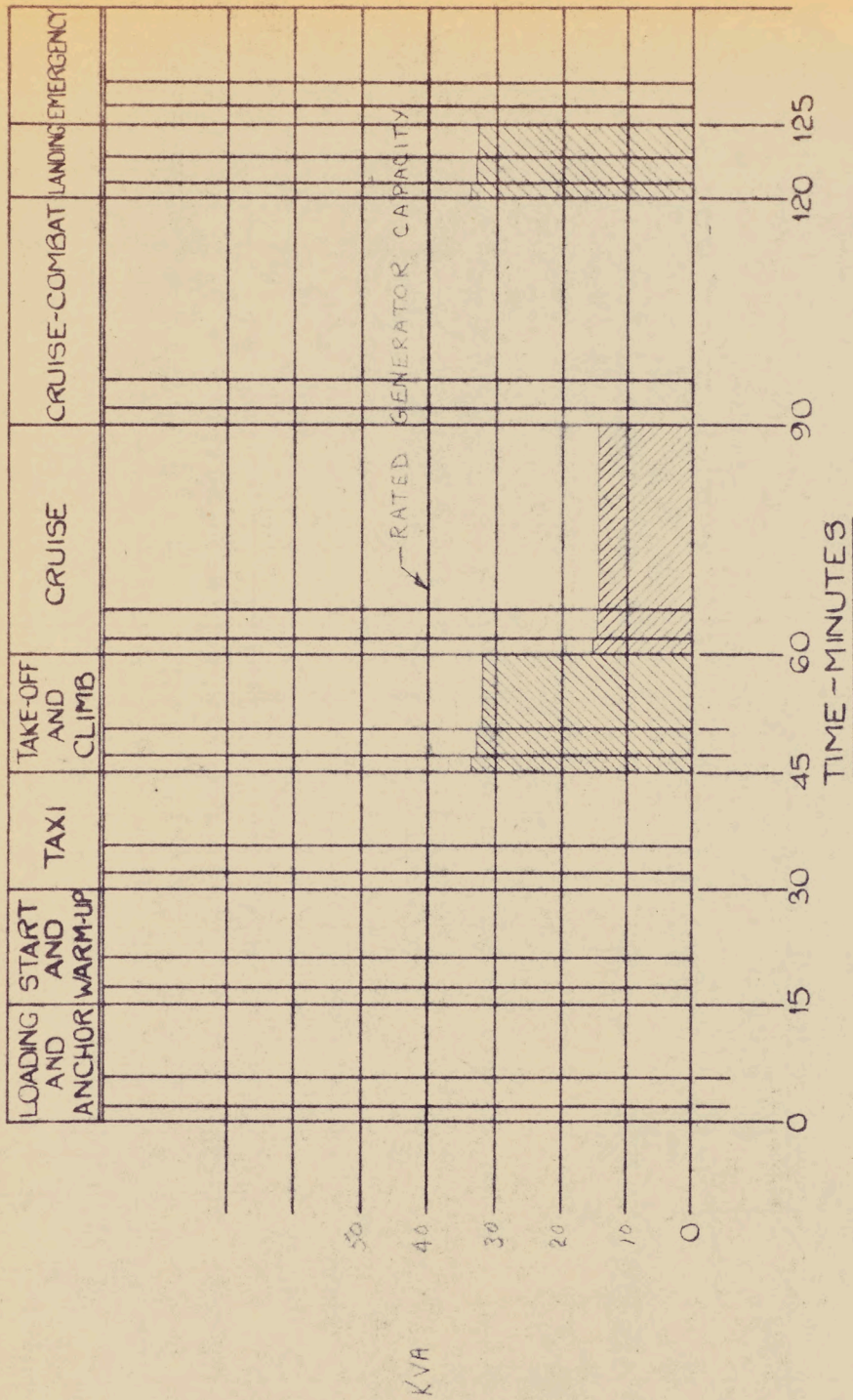
GRAPH #5

TIME - MINUTES

CASE 1

ONE ALTERNATOR OUT
 SWITCH SELECTED TO "MISSILES" FOR CRUISE & COMBAT
 & TO "DE-ICE" FOR LANDING

AVRO AIRCRAFT LIMITED.
 GRAPH-ELECTRICAL LOAD ANALYSIS



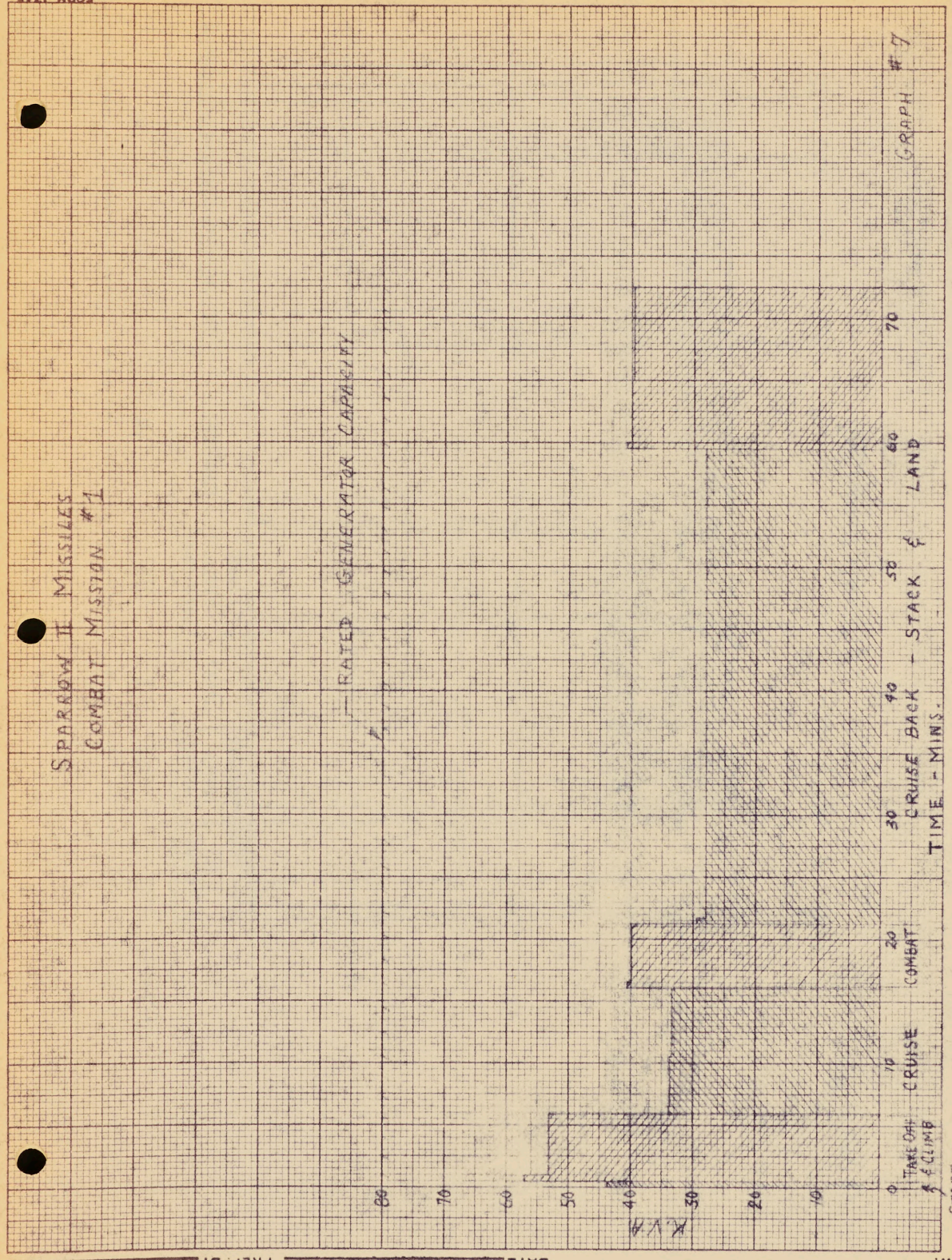
GRAPH # 6

CASE 2
 ONE ALTERNATOR OUT
 SWITCH SELECTED TO "DE-ICE" POSITION.

AVRO AIRCRAFT LIMITED.
 GRAPH-ELECTRICAL LOAD ANALYSIS

SPARROW II MISSILES
COMBAT MISSION #1

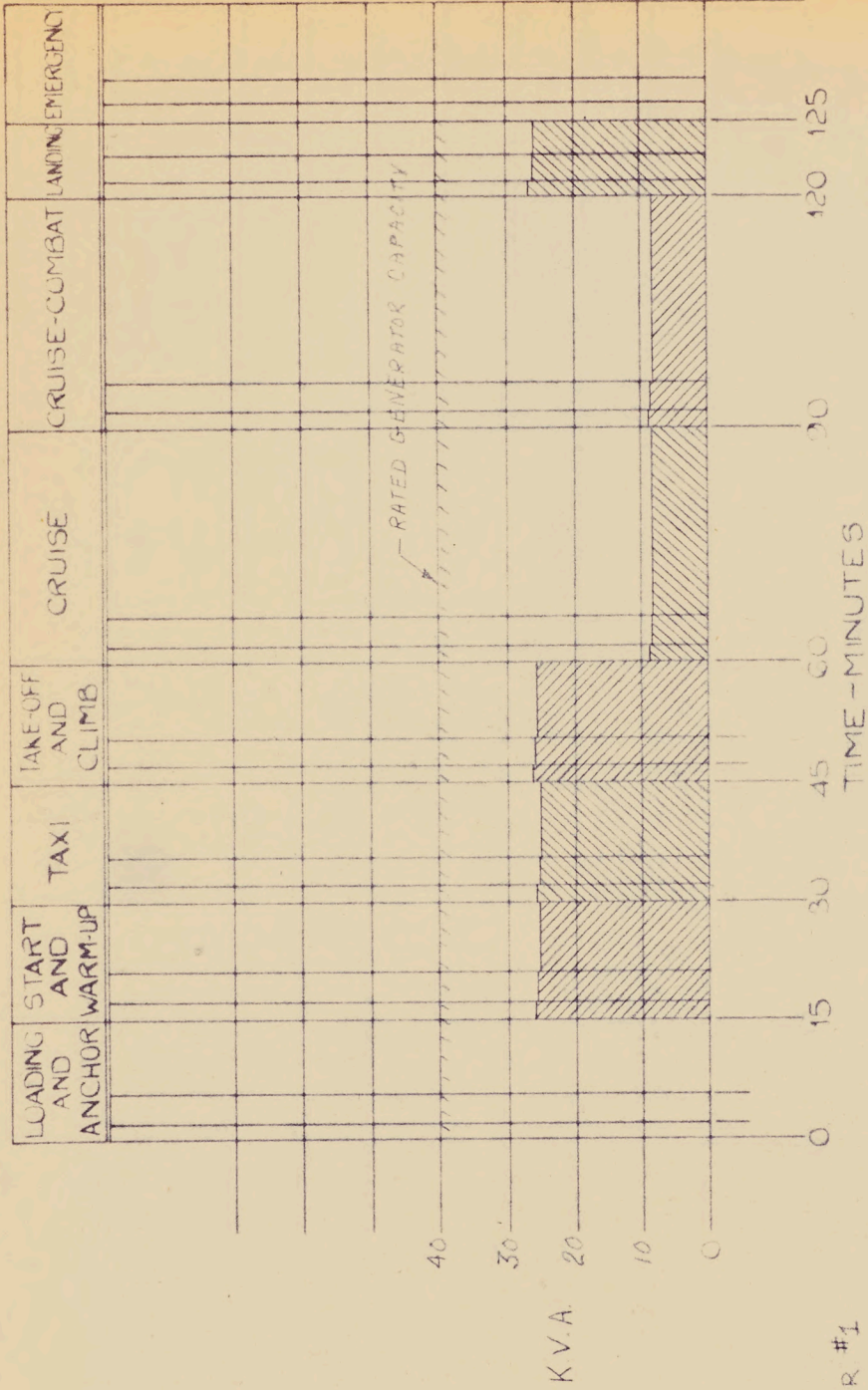
RATED GENERATOR CAPACITY



A.U.W. AIRCRAFT C/F105 COMPONENT SHEET NO. _____ DATE _____ PREP BY _____ REPORT NO. _____

KRIEGER & EGER CO., N. Y. NO. 38712
 10 X 16 to the 5/8" IN. 50 LBS. WEIGHT
 MADE IN U.S.A.

AVERAGE PF — .99 .98 .92 .92 .98 .92 .98

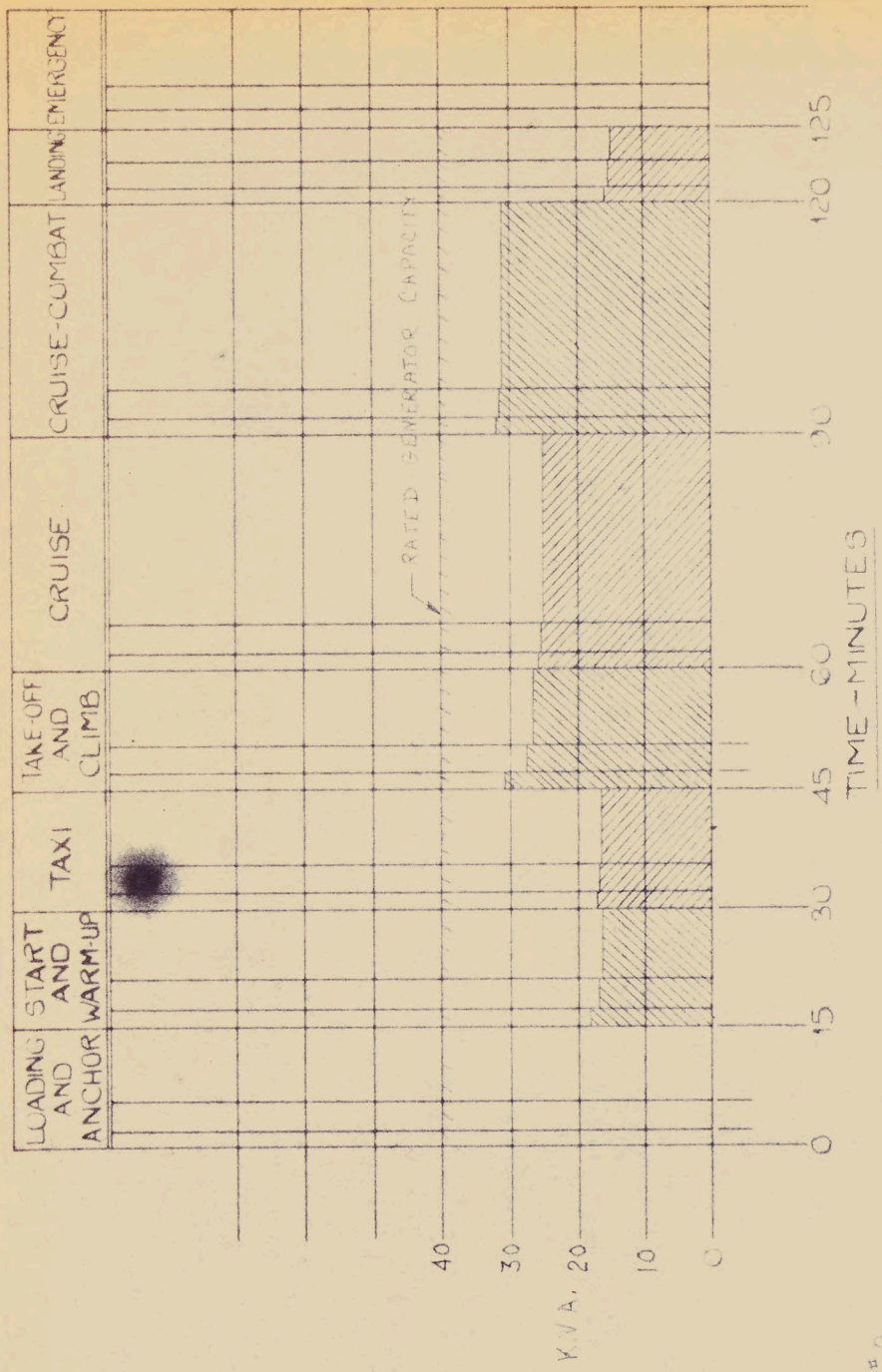


ALTERNATOR #1

GRAPH # 8

AVRO AIRCRAFT LIMITED.
GRAPH-ELECTRICAL LOAD ANALYSIS

AVERAGE P.F. — .87 .97 .95 .91

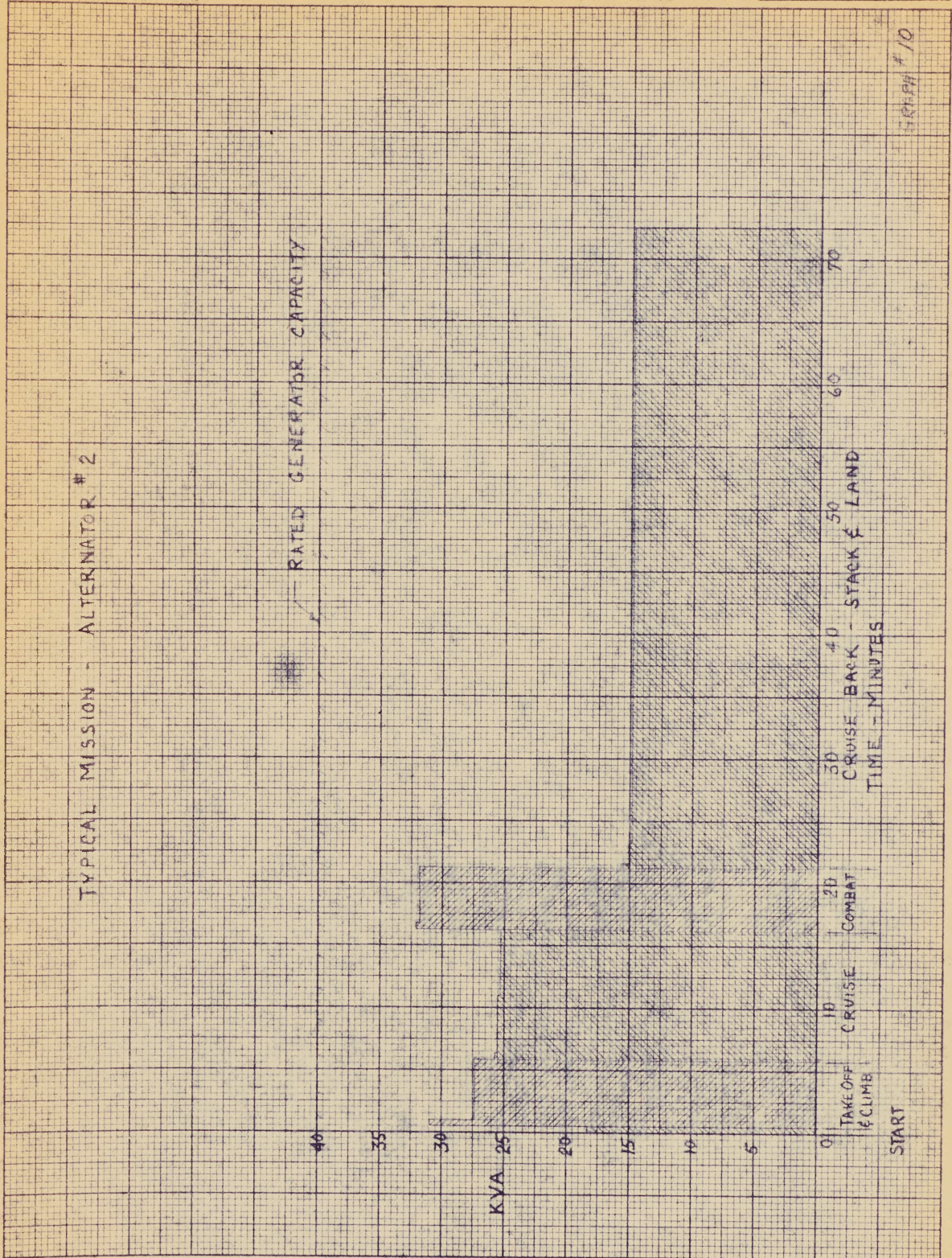


ALTERNATOR # 2

GRAPH # 9

AVRO AIRCRAFT LIMITED.
GRAPH-ELECTRICAL LOAD ANALYSIS

STUFFEL & ESSER CO., N. Y. No. 375-12
10 X 10 to 10 1/2 Inch, 5th Ed. latest
MADE IN U. S. A.



GRAPH # 10

006-111
3558
MADE IN U.S.A.