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BOEING VERTOL CO PHILADELPHIA PA
LEVEL OF REPAIR (LOR) SUMMARY REPORT FOR THE 'AUTOMATED LIFE RA--ETC(U)
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D210-11156-1

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N62269-76-C-0341

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BOEING VERTEL COMPANY

A DIVISION OF THE BOEING COMPANY

P.O. BOX 16858

PHILADELPHIA, PENNSYLVANIA 19142

CODE IDENT. NO. 77272

NUMBER D210-11156-1

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"AUTOMATED LIFE RAFT" AND THE
"HELICOPTER FLOTATION SYSTEM"

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MODEL H-46 CONTRACT N62269-76-C-0341

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ABSTRACT

This document summarizes the Level of Repair (LOR) analysis by tabulating the LOR decisions for all the items analyzed for the externally mounted, automatically expelled/inflated multiplace lift raft for helicopters, Automated Life Raft (ALR) and the sink rate delay/improved in-water stability for helicopters (Helicopter Flotation System) (HFS).

KEY WORDS

Automated Life Raft
Weapon Replaceable Assemblies
Work Unit Codes
Optimum Repair Level Analysis
Helicopter Flotation System

ABBREVIATIONS

ALR	Automated Life Raft
ORLA	Optimum Repair Level Analysis
WRA	Weapon Replaceable Assemblies
WUC	Work Unit Codes
HFS	Helicopter Flotation System
SDLM	Standard Depot Level Maintenance
BCM	Beyond Capability Maintenance
IMA	Intermediate Maintenance Activity
NSN	National Stock Number

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1. INTRODUCTION (ALR)

This report summarizes the methodology and results of the Level of Repair (LOR) analysis conducted on applicable Automatic Life Raft (ALR) installation components. The LOR model is described, and tabulated inputs and outputs of model manipulations are provided. Three significant units were analyzed; the Weapon Replaceable Assemblies (WRA's), along with their identifying Work Unit Codes (WUC's) are listed below. (item part numbers have yet to be established)

<u>WRA</u>	<u>WUC</u>
Life Raft Container	91181.00
Cockpit Control	91182.00
Cabin Control	91183.00

Components housed within the Life Raft Container were not considered during the LOR analyses since these components would be Government Furnished Equipment (GFE).

2. LOR RECOMMENDATIONS (ALR)

Multiple exercising of the model with significant variance of the driving variables of unit cost and removal rate indicate that decision to repair all three WRA's at the intermediate level of maintenance is valid. Substantiation for this recommendation is provided in subsequent paragraphs and justify the Maintainability Block Diagram and Mathematical Model contained in Report D210-11163-1.

3. ANALYTICAL PROCEDURE

The procedure used to establish the level of repair recommendations is called the Boeing Vertol Optimum Repair Level Analysis (ORLA) model. ORLA has been applied successfully on existing government programs and its use on the ALR study is considered cost effective.

3.1 ORLA Model. This model simulates the support scenario for an equipment life cycle and computes the relative support costs for three maintenance alternatives; i.e., discard upon failure, repair at the intermediate level of maintenance or repair at depot. The model inputs forty-one support parameters and computes 65 cost outputs relative to the three decision alternatives. The first 19 input parameters are described in Table 1 and are the parameters most affected by equipment design. The next 22 parameters, listed in Table 2, are semi-fixed variables and are primarily government supplied data describing life cycle, force size and structure, and cost constants currently applied by the government. The semi-fixed variables currently employed in the model are shown in parenthesis in Table 2.

TABLE 1

ORLA INPUT DATA
ELEMENTS 1-19 DESCRIPTIONS
CONTRACTOR INPUT

1. Procurement cost of one repairable WRA
2. Procurement cost of one discardable WRA
3. Repairable WRA replacement rate per million flight hours
4. Discardable WRA replacement rate per million flight hours
5. Number of WRA's per aircraft
6. BCM9 rate
7. Maintenance manhours required to repair WRA
8. Range (number) of parts to be provisioned for repair
9. Number of new part types to be placed in inventory
10. Number of maint. instruction pages required for WRA fault isolation
11. Number of maint. instruction pages required for WRA repair actions
12. Unpackaged weight of WRA (pounds)
13. Initial cost of PGSE required for repair (per site)
14. PGSE yearly maintenance cost (decimal % of initial cost)
15. Initial prorated cost of CGSE required for repair (per site)
16. CGSE yearly maintenance cost (decimal % of initial cost)
17. Bench floor space for repair activity (square feet)
18. Yearly cost to train personnel per repair activity
19. Average cost of parts per WRA repair action.

TABLE 2

ORLA INPUT DATA
ELEMENTS 20-41 DESCRIPTIONS
GOVERNMENT INPUT

20. Length of depot pipeline - months (6.0)
21. Intermediate maintenance activity turnaround time - days (20.0)
22. Order and shipping time - days (3.0)
23. Depot labor wage rate - \$/hour (12.87)
24. IMA labor wage rate - \$/hour (8.93)
25. Cost to introduce new part in inventory (206.23)
26. Yearly cost to keep part in inventory (375.68)
27. Average cost of originating one page of tech data (150.00)
28. Cost to introduce new assembly in inventory (233.09)
29. Yearly cost to keep new assembly in inventory (587.49)
30. Preparation for shipping labor rate - \$/pound (0.19)
31. Preparation for shipping material rate - \$/pound (0.10)
32. Shipping rate to/from depot - \$/pound (0.60)
33. Packaged to unpackaged weight ratio (1.30)
34. Supply admin. cost - \$/NSN/year (4.93)
35. System life cycle - calendar years (10)
36. Aircraft utilization - flight hours/month (69)
37. Number of intermediate maintenance activities (5)
38. Receiving charges for each order (12.00)
39. Cost of maintenance space - \$/square foot/year (10.00)
40. Yearly storage cost - decimal % of unit cost (0.20)
41. Number of aircraft supported per IMA (225)

3.2 ORLA Model Output. Using the input variables the model simulates a logistics support life cycle, and prints out cost elements relating to discard, intermediate and depot repair alternatives. Descriptions for the numerical line entries of the printed output are given in Table 3.

4. ALR INSTALLATION ORLA'S

Due to the fluidity of this conceptual study of the ALR installation, it was decided to conduct multiple ORLA's on each ALR component to ensure the validity of the level of repair decisions. Two of the major drivers of the ORLA are the variables of unit cost and the replacement frequency. Each of these parameters was significantly changed three times while holding all other variables constant. The resultant nine ORLA's for each component are summarized in the following paragraphs. The detail input and output readouts of each ORLA run are contained in the Appendix.

4.1 Life Raft Container ORLA Summary. Life Raft Container ORLA's were conducted at unit costs of \$300, \$600 and \$1200 with Mean Time Between Removals (MTBR's) of 400, 10,000 and 20,000 hours. Figure 1 is a chart of the relative merits of the repair decisions compared against the cost of discard (the most costly decisions in all cases). Intermediate level repairs ranged from 88% to 33% of discard costs, while depot ranged from 91% to 42%. Intermediate repair was most cost effective for all runs. However, at the high MTBR of 20,000 flight hours, intermediate and depot repair decisions were close. As the MTBR decreased, the intermediate level decision became more pronounced. The decision of intermediate repair of the life raft container is considered valid.

4.2 ALR Cockpit Control ORLA Summary. The ORLA's conducted used unit costs of \$50, \$100 and \$200 coupled with MTBR's of 1,000, 5,000 and 10,000 hours. The results of these ORLA's are portrayed in Figure 2 as a comparison against discard, the most costly concept. The validity of the intermediate repair level concept is easily recognized as it ranges from 78% to 33% of the discard cost.

4.3 ALR Cabin Control ORLA Summary. Figure 3 presents the results of the Cabin Control ORLA's. Unit Costs of \$75, \$150, \$300 and MTBR's of 1,000, 5,000 and 10,000 hours resulted in an Intermediate level repair decision.

5. INTRODUCTION (HFS)

This report summarizes the rationale used to establish the Level of Repair (LOR) for Helicopter Flotation System (HFS) components. As indicated in subsequent paragraphs, application of the Optimum Repair Level Analysis (ORLA) model was not required. Significant HFS Weapon Replaceable Assemblies (WRA's) addressed, along with their Work Unit Codes (WUC's) are listed below. (Item part numbers have yet to be established).

5. (Continued)

<u>WRA</u>	<u>WUC</u>
Float	91211 and 91221
Cockpit Control	91231
Cabin Control	91232

System components which will be Government Furnished Equipment (GFE) are not considered in this report since their maintenance shall be as directed by the Government.

6. LOR RECOMMENDATIONS (HFS)

Overall LOR recommendations are as follows:

<u>WRA</u>	<u>LOR</u>
Float (Flotation Bag)	Depot (NARF)
Cockpit Control	Intermediate (AIMD)
Cabin Control	Intermediate (AIMD)

These recommendations have been implemented in the Maintainability Block Diagram and Mathematical Model contained in Report D210-11163-1.

7. LOR RATIONALE

7.1 Float (Flotation Bag) Rationale. Requirements to be imposed on flotation bag suppliers negate the requirement for fleet level repair. The bags shall be so designed that they shall not require inspection or testing between the 24 month H-46 helicopter Standard Depot Level Maintenance (SDLM). When used as part of an H-46 water recovery operation, the bag shall either be discarded or shipped to depot for repair. No other maintenance, with the exception of pod security inspections, shall be required. Based on this concept, ORLA is not required since the repair level is dictated by design decisions and requirements imposed on suppliers.

7.2 Controls Rationale. The decision to repair the cockpit and cabin controls at the intermediate level of maintenance is based on their similarity to the control units of the Automatic Life Raft (ALR) installation. In the event that both the ALR and HFS are installed in the H-46 helicopter, it is anticipated that the controls for both systems will be installed in common control units. The ORLA model was exercised on the ALR control units to determine their LOR as described in Paragraphs 3 and 4. These paragraphs describe the analytical procedure and model used.

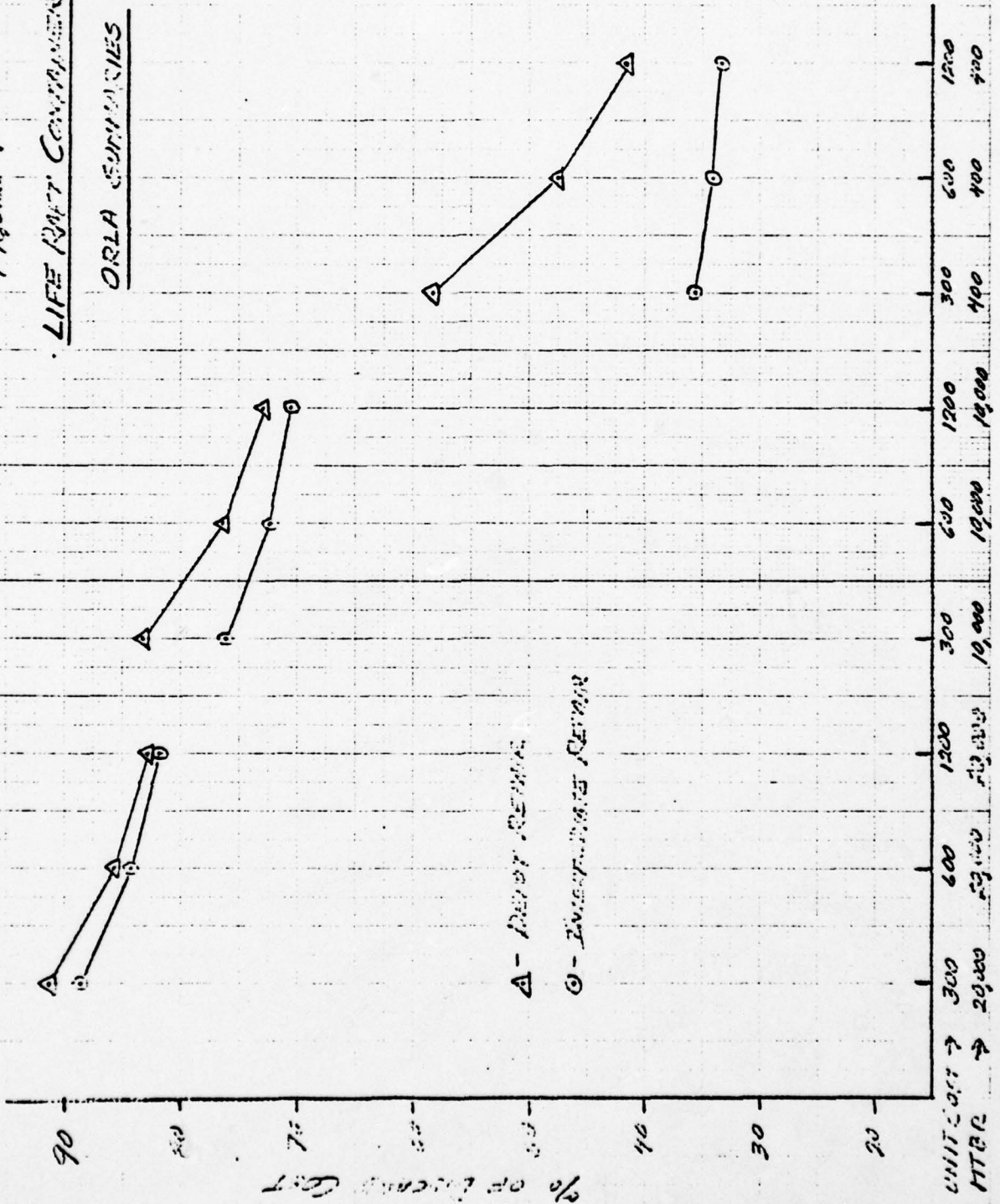
TABLE 3

ORLA COST INPUTS

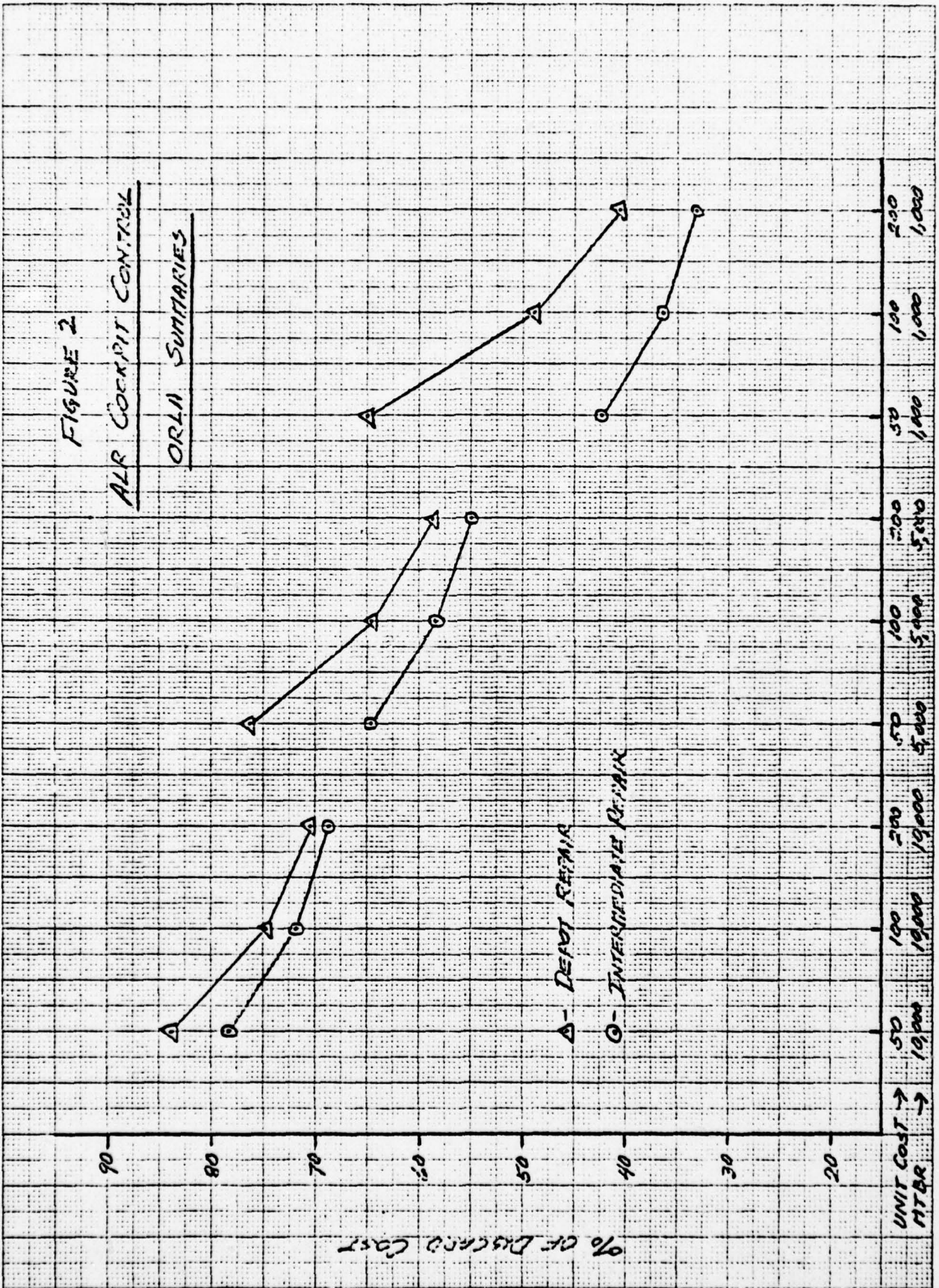
<u>DISCARD</u>		<u>INTERMEDIATE REPAIR</u>		<u>DEPOT REPAIR</u>	
ORLA Ident.	Concept Costs	ORLA Ident.	Concept Costs	ORLA Ident.	Concept Costs
1-	Initial quantity	14-	Initial quantity	42-	Initial quantity
2-	Requisitioning	15-	Requisitioning (WRA)	43-	Requisitioning
3-	Replacerent	16-	Replacements (Condem.)	44-	Replacements (Condem.)
4-	Total Procurement	17-	Requisitioning (Parts)	45-	Replenishment (Parts)
5-	New Assembly	18-	Replenishment (Parts)	46-	Depot Pipeline
6-	Storage	19-	Total Procurement	47-	Total Procurement
7-	Receivings	20-	New Assembly	48-	New Assembly
8-	Field Supply Administration	21-	New Parts	49-	New Parts
9-	Total Inventory	22-	Storage (WRA)	50-	Storage (WRA)
10-	Packing	23-	Storage (Parts)	51-	Receiving (WRA)
11-	Shipping	24-	Receiving (WRA)	52-	Total Inventory
12-	Total Transportation	25-	Receiving (Parts)	53-	Shipping Failures
13-	TOTAL DISCARD CONCEPT	26-	Field Supply Administration	54-	Total Transportation
		27-	Total Inventory	55-	PGSE Procurement
		28-	Packing (WRA)	56-	CGSE Procurement
		29-	Packing (Parts)	57-	Floor Space
		30-	Total Transportation	58-	Total Troubleshooting
		31-	PGSE Procurement	59-	Trouble Manual
		32-	CGSE Procurement	60-	CFE Manual
		33-	Floor Cost	61-	Total Manuals
		34-	Total Troubleshooting	62-	Direct Manhours
		35-	Trouble Manual	63-	Personnel Training
		36-	CFE Manual	64-	Total Personnel
		37-	Total Manuals	65-	TOTAL DEPOT REPAIR
		38-	Direct Manhours		
		39-	Personnel Training		
		40-	Total Personnel		
		41-	TOTAL BASE REPAIR		

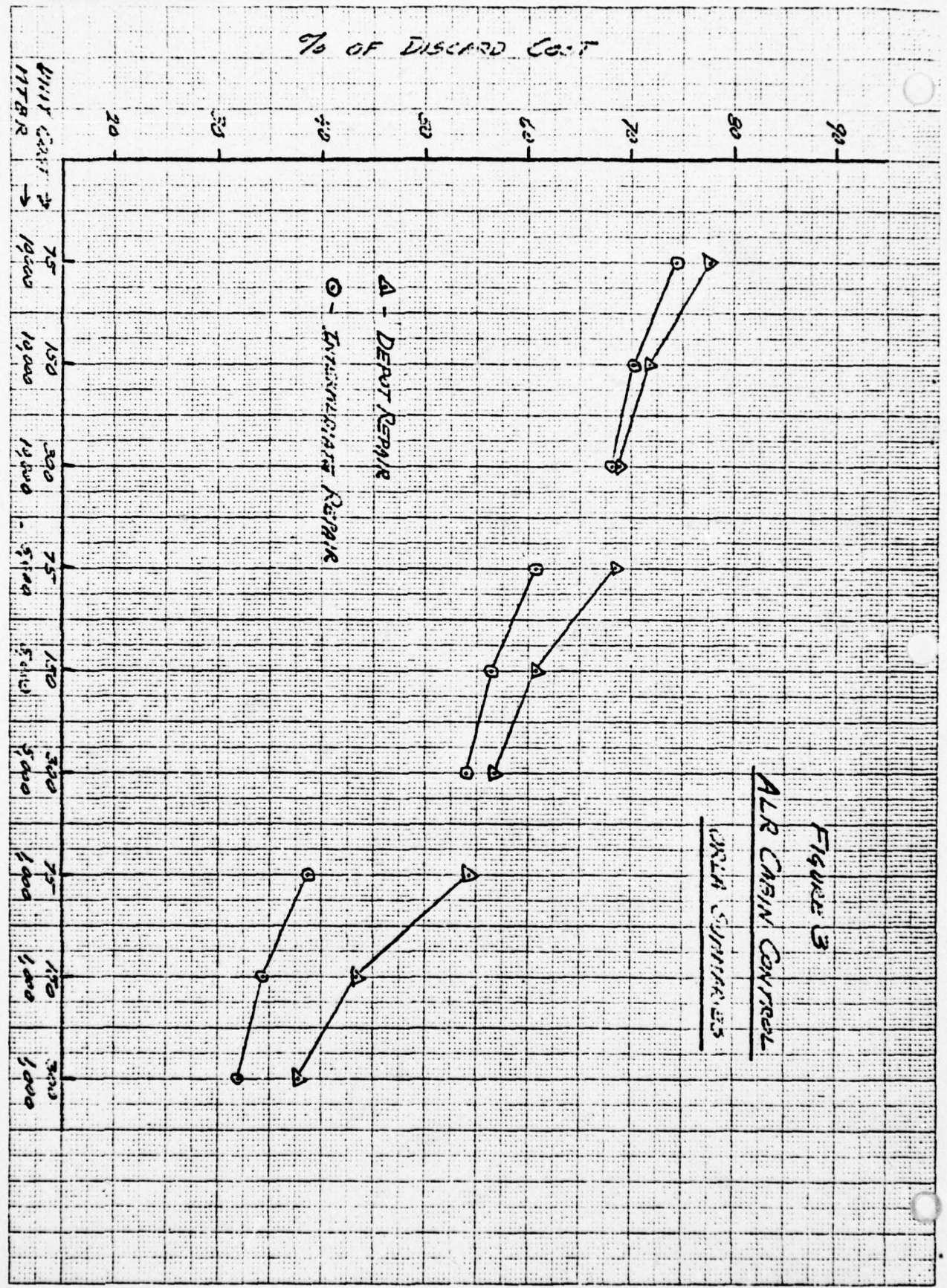
FIGURE 1
LIFE RAFT COMPANIES

ORLA SUMMARIES



A - DAILY RENTAL
B - EQUIPMENT RENTAL





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MADE IN U. S. A.

NO. 340R-MP DIETZGEN GRAPH PAPER
MILLIMETER

APPENDIX A

DETAILED ORLA INPUT/OUTPUT READOUTS

LIFE RAFT CONTAINER
UNIT COST \$300
TTDR 29,000 MONTHS

ORLA INT

ORLA INPUT DATA

1	300.00
2	300.00
3	300.00
4	300.00
5	300.00
6	300.00
7	300.00
8	300.00
9	300.00
10	300.00
11	300.00
12	300.00
13	300.00
14	300.00
15	300.00
16	300.00
17	300.00
18	300.00
19	300.00
20	300.00
21	300.00
22	300.00
23	300.00
24	300.00
25	300.00
26	300.00
27	300.00
28	300.00
29	300.00
30	300.00
31	300.00
32	300.00
33	300.00
34	300.00
35	300.00
36	300.00
37	300.00
38	300.00
39	300.00
40	300.00
41	300.00

1	675000		
2	279000	4	958500
3	5521		
4	9000		
5	5380		
6	247		
7	1500		
8	1500		
9	1200		
10	10318	9	20348
11	21762	12	32280
12	675000		
13	55000		
14	52250		
15	22500		
16	22500		
17	22500		
18	22500		
19	758250		
20	5321		
21	43048		
22	6000		
23	4200		
24	2200		
25	9000		
26	3744		
27	6421		
28	1776		
29	1776		
30	1776		
31	1776		
32	8000		
33	300		
34	11750		
35	300		
36	2250		
37	2250		
38	6810		
39	36000		
40	42010		
41	675000		
42	1500		
43	23500		
44	2250		
45	17450		
46	5521		
47	43048		
48	10700		
49	11160		
50	64561		
51	750		
52	1600		
53	300		
54	2250		
55	9815		
56	7200		
57	17015		
58	3350		
59	2550		
60	2550		
61	2550		
62	17015		
63	7200		
64	17015		
65	7200		

1011128 Discard Cost

327150 Intermediate Reserve

220225 DETRY Reserve

LIFE RAFT CONTAINER
 UNIT COST \$600
 NTBR 29000 HOURS

ORLA OUTPUTS

ORLA INPUT DATA	ORLA OUTPUTS	1974628 Discard Cost	1666300 Intermediate Repair	1693643 Direct Repair
1 600.00	1 1350000			
2 700.00	2 800			
3 20.00	3 558000	4 1917000		
4 20.00	5 5521			
5 20.00	6 18000			
6 20.00	7 5580			
7 20.00	8 267			
8 1.00	9 29348			
9 15.00	10 10518			
10 12.00	11 21162	12 32280	13 1974628	
11 12.00	14 1350000			
12 30.00	15 6000			
13 500.00	16 112500			
14 500.00	17 450000	19 1516300		
15 14.00	20 5521			
16 720.00	21 43068			
17 60.00	22 12000			
18 20.00	23 5000			
19 3.00	24 2220			
20 12.87	25 9000			
21 18.51	26 3844	27 64733		
22 372.63	28 6421			
23 334.00	29 17310	30 8157		
24 387.45	31 3750			
25 10.00	32 8000			
26 1.00	33 300			
27 1.00	34 11750			
28 4.00	35 2250			
29 10.00	36 2550			
30 60.00	38 6810			
31 3.00	39 35000	40 42810	41 1666300	
32 12.00	42 1350000			
33 225.00	43 3000			
34 1.00	44 111600			
35 4.00	45 4440			
36 10.00	46 38200	47 1543660		
37 3.00	48 2221			
38 5.00	49 43548			
39 16.00	50 11160			
40 12.00	51 64561	52 63729		
41 10.00	53 750	54 64561		
42 225.00	55 750			
	56 1600	57 2350		
	58 300			
	59 2250	60 2550		
	61 9215	62 3550		
	63 7200	64 17015	65 1693643	
				Direct Repair

LIFE RAFT CONTAINER
UNIT COST \$1200
HTDR 20,000 HOURS

ORLA OUTPUTS

LINE	QPLA INPUT DATA	AMOUNT	DISCOUNT	INTERMEDIATE REMAIN	NET REMAIN
1	1200.00	2700000			
2	1536.00	18000			
3	50.00	1116000	4	9834000	
4	50.00	3521			
5	50.00	5500			
6	2.00	247			
7	.20				
8	1.00	47348			
9	12.00	10518			
10	12.00	21762			
11	12.00	32280	13	1211621	Discard Cost
12	12.00	2700000			
13	12.00	12000			
14	12.00	222000			
15	12.00	90000			
16	500.00	9033000			
17	.00				
18	.00				
19	16.00	5231			
20	16.00	41648			
21	120.00	78000			
22	120.00	19000			
23	20.00	2720			
24	20.00	9000			
25	12.00	3544			
26	12.00	105733			
27	205.23	6421			
28	375.63	1736			
29	356.00	3750	10	8157	
30	233.79				
31	237.49				
32	.10	8000			
33	.10	300			
34	1.30	2250			
35	4.00	2550			
36	10.00	6810			
37	60.00	30000	40	42810	
38	5.00				
39	12.00	2700000			
40	10.00	6000			
41	225.00	222000			
42		88280			
43		69600			
44		3086880			
45		5521			
46		4348			
47		14000			
48		11160			
49		71729			
50		64561			
51		750			
52		1600			
53		300			
54		2250			
55		3350			
56		2550			
57		9815			
58		7200			
59		17015	65	2243085	Net Remain
60					
61					
62					
63					
64					
65					

LIFE RAFT CONTAINER

UNIT COST \$ 300
 MTBR 19,000 HOURS

OCMA INPUT DATA

1	330.00
2	300.00
3	170.00
4	130.00
5	2.00
6	1.20
7	1.20
8	12.00
9	12.00
10	12.00
11	13.00
12	35.00
13	500.00
14	.05
15	.00
16	.00
17	10.00
18	30.00
19	30.00
20	20.00
21	1.00
22	12.00
23	6.00
24	200.00
25	325.00
26	150.00
27	223.00
28	223.00
29	223.00
30	1.00
31	1.00
32	1.00
33	1.00
34	1.00
35	6.00
36	12.00
37	10.00
38	10.00
39	225.00

OCMA OUTPUTS

1	675000	
2	6000	
3	559500	1240500
4		
5	5521	
6	12000	
7	7500	
8	247	25268
9		
10	21000	
11	43641	
12		64736
13		
14	675000	
15	6000	
16	112500	
17	2520	
18	45000	840750
19		
20	5521	
21	12000	
22	7500	
23	4500	
24	4500	
25	18000	
26	5944	
27		91313
28	13016	
29	3471	10
30		16487
31	3750	
32	6000	34
33		11750
34	300	
35	2250	37
36		2550
37	13657	
38	36000	40
39		49657
40		41
41		
42	675000	
43	1560	
44	112500	
45	42760	
46	33000	47
47		866760
48	5521	
49	43048	
50	3000	
51	22320	
52		73949
53	129468	54
54		129468
55	750	
56		
57	1670	58
58		2350
59	300	
60	2250	61
61		2550
62	19682	
63	7200	64
64		26882
65		

1119502 Discard Cost

1012707 Investments Return

1119502 Asset Return

LIFE RAFT CONTAINER
UNIT COST \$100
MTDR 10,000 HOURS

ORLA OUTPUTS

ORLA INPUT DATA			
1	1350000		
2	12000		
3	1119000	4	2481000
5	5521		
6	2700		
7	7500		
8	241	9	37268
10	21093		
11	43641	12	64734
13	2581002	13	
14	1350000		
15	12000		
16	255000		
17	4500		
18	900000	19	1682500
20	5521		
21	43743		
22	24603		
23	9000		
24	4500		
25	18000		
26	3944		
27	108013		
28	13016		
29	3471	30	16487
31	3750		
32	8000		
33	300	34	11750
35	2250		
36	2250	37	2550
38	13037		
39	36000	40	49657
41	1869937	41	
42	1350000		
43	3900		
44	225000		
45	89520		
46	66005	47	1733520
48	5521		
49	43648		
50	6000		
51	22370	52	76949
53	129463	54	139468
55	750		
56	1600	58	2350
59	700		
60	2250	61	2550
62	19682		
63	7200	64	26802
65	1071719		
			<u>DETENT REPAIR</u>

LIFE RAFT CONTAINER
 UNIT COST \$1200
 FTBR 19,000 Hours

ORLA OUTPUTS

LINE	ORLA UNIT DATA	QUANTITY	UNIT COST	TOTAL COST	DESCRIPTION
1	120.00				
2	120.00				
3	120.00				
4	120.00				
5	120.00				
6	120.00				
7	120.00				
8	120.00				
9	120.00				
10	120.00				
11	120.00				
12	120.00				
13	120.00				
14	120.00				
15	120.00				
16	120.00				
17	120.00				
18	120.00				
19	120.00				
20	120.00				
21	120.00				
22	120.00				
23	120.00				
24	120.00				
25	120.00				
26	120.00				
27	120.00				
28	120.00				
29	120.00				
30	120.00				
31	120.00				
32	120.00				
33	120.00				
34	120.00				
35	120.00				
36	120.00				
37	120.00				
38	120.00				
39	120.00				
40	120.00				
41	120.00				
42	120.00				
43	120.00				
44	120.00				
45	120.00				
46	120.00				
47	120.00				
48	120.00				
49	120.00				
50	120.00				
51	120.00				
52	120.00				
53	120.00				
54	120.00				
55	120.00				
56	120.00				
57	120.00				
58	120.00				
59	120.00				
60	120.00				
61	120.00				
62	120.00				
63	120.00				
64	120.00				
65	120.00				

LIFE RAFT CONTAINER
 UNIT COST \$300
 HTBR 400 HOURS

DELA OUTPUTS

1	675000	
2	133500	
3	13872300	4 14781000
5	5221	
6	2670000	
7	7500	
8	247	9 230028
10	526763	
11	1087555	12 1616618
		13 16672646 <u>DISCARD COST</u>
14	675000	
15	81000	
16	2794500	
17	18000	
18	1118250	
19		19 4636750
20	5221	
21	43645	
22	162000	
23	366000	
24	111700	
25	174700	
26	3944	
27		27 436993
28	323324	
29	86254	
30		30 409578
31	3750	
32		
33	8000	
34	300	34 11750
35	2250	
36		
37	341050	37 2550
38		
39	36000	40 377050
40		
41		
42	675000	
43	18000	
44	2794500	
45	311800	
46	723000	47 5328900
48	5221	
49	43048	
50	16000	
51	550000	
52		52 643469
53	3233237	54 3233237,
55	750	
56	1600	58 2350
57		
59	300	
60	2250	550 2550
61		
62	491321	
63	1250	64 498725
		65 5299331 <u>REPAIR REPAIR</u>

DELA INPUT DATA

1	300.00
2	300.00
3	2200.00
4	2330.00
5	7.50
6	2.20
7	15.00
8	12.00
9	12.00
10	15.00
11	15.00
12	36.00
13	500.00
14	.05
15	.00
16	.00
17	.00
18	15.00
19	750.00
20	300.00
21	20.00
22	1.00
23	12.87
24	5.93
25	206.23
26	372.63
27	150.00
28	233.00
29	537.40
30	.19
31	.10
32	1.00
33	4.00
34	10.00
35	60.00
36	5.00
37	12.00
38	10.00
39	10.00
40	20.00
41	235.00

LIFE RAFT CONTAINER
UNIT COST \$100
MTBR 400 HOURS

ORLA OUTPUTS

LINE NO.	UNIT COST	MTBR	OUTPUTS	DISCARD COST	INTERMEDIATE RETAIN	DEPT RETAIN
1	1320000					
2	287000					
3	27945030	4	29562000			
5	5521					
6	53000					
7	720					
8	247					
9	547028					
10	526763					
11	1089055					
12	1616618	13	31725646			
14	1350000					
15	112000					
16	558000					
17	31500					
18	2230500	19	9369000			
20	5521					
21	43048					
22	32000					
23	43000					
24	111730					
25	89100					
26	3984					
27	640393					
28	32324					
29	56254	30	409578			
31	3750					
32	8000					
33	30	34	11750			
35	2250					
36	2250					
37	2550					
38	341050					
39	36000					
40	377050	41	10810321			
42	1350000					
43	36000					
44	558000					
45	223500					
46	1447200					
47	10657800					
48	5521					
49	43048					
50	7200					
51	558000					
52	679469					
53	323237	54	323237			
55	750					
56	1600					
57	1600	58	2350			
59	300					
60	2250					
61	2550					
62	491525					
63	7200	64	493725			
65	1307131					

ALR Coeprit Control
UNIT COST \$.50
TTBR 10,000 Hours

ORLA OUTPUTS

LINE	QTY	UNIT COST	TOTAL COST	DISCARD COST	INTERMEDIATE PARTS	DEPT BONUS
1	56250					
2	1000					
3	46500		103750			
4						
5	5521					
6	2900					
7	3720					
8	247					
9						
10	175		11488			
11	363					
12			538			
13				113776		
14	56250					
15	750					
16	4750					
17	500					
18	4125					
19			66375			
20	5521					
21	1500					
22	1000					
23	1140					
24	2400					
25	1479					
26						
27			16627			
28	55					
29	95					
30			150			
31	750					
32						
33	2000					
34	300					
35	600					
36			2750			
37	3779					
38			900			
39						
40			3779			
41			41			
42	56250					
43	250					
44	4750					
45	4135					
46	2500					
47			68335			
48	5521					
49	3537					
50	500					
51	11160					
52			20768			
53	1076					
54			1076			
55	150					
56						
57	400					
58			550			
59	300					
60	600					
61			900			
62	3448					
63						
64			5446			
65			65			

ALR COCREDIT CONTROL
UNIT COST \$100
MTBR 14,000 HOURS

ORLA OUTPUTS

ORLA INPUT DATA					
1	100.00	112500			
2	100.00	11570			
3	100.00	93000	4	207000	
4	100.00	5521			
5	100.00	3050			
6	100.00	5550			
7	100.00	247			
8	100.00	14343	9	14343	
9	100.00	175			
10	100.00	363			
11	100.00	12	13	538	211835
12	100.00	112500			
13	100.00	8500			
14	100.00	9750			
15	100.00	750			
16	100.00	8250			
17	100.00	400	19	132500	
18	100.00	400			
19	100.00	1000			
20	100.00	3567			
21	100.00	3000			
22	100.00	3000			
23	100.00	1500			
24	100.00	1140			
25	100.00	3750			
26	100.00	1675	27	19527	
27	100.00	55			
28	100.00	95			
29	100.00	750	30	150	
30	100.00	2000	34	2750	
31	100.00	300			
32	100.00	600			
33	100.00	3779	37	900	
34	100.00	40	40	3779	
35	100.00	112500			
36	100.00	500			
37	100.00	9500			
38	100.00	8370			
39	100.00	5500	47	136670	
40	100.00	5521			
41	100.00	321			
42	100.00	1000			
43	100.00	11160	52	21268	
44	100.00	1076	54	1076	
45	100.00	150			
46	100.00	400			
47	100.00	400	58	530	
48	100.00	300			
49	100.00	600			
50	100.00	3666	61	900	
51	100.00	64	64	3666	
52	100.00	22500			
53	100.00	500			
54	100.00	9500			
55	100.00	8370			
56	100.00	5500			
57	100.00	5521			
58	100.00	321			
59	100.00	1000			
60	100.00	11160			
61	100.00	1076			
62	100.00	150			
63	100.00	400			
64	100.00	400			
65	100.00	300			
66	100.00	600			
67	100.00	3666			
68	100.00	64			
69	100.00	22500			
70	100.00	500			
71	100.00	9500			
72	100.00	8370			
73	100.00	5500			
74	100.00	5521			
75	100.00	321			
76	100.00	1000			
77	100.00	11160			
78	100.00	1076			
79	100.00	150			
80	100.00	400			
81	100.00	400			
82	100.00	300			
83	100.00	600			
84	100.00	3666			
85	100.00	64			
86	100.00	22500			
87	100.00	500			
88	100.00	9500			
89	100.00	8370			
90	100.00	5500			
91	100.00	5521			
92	100.00	321			
93	100.00	1000			
94	100.00	11160			
95	100.00	1076			
96	100.00	150			
97	100.00	400			
98	100.00	400			
99	100.00	300			
100	100.00	600			
101	100.00	3666			
102	100.00	64			
103	100.00	22500			
104	100.00	500			
105	100.00	9500			
106	100.00	8370			
107	100.00	5500			
108	100.00	5521			
109	100.00	321			
110	100.00	1000			
111	100.00	11160			
112	100.00	1076			
113	100.00	150			
114	100.00	400			
115	100.00	400			
116	100.00	300			
117	100.00	600			
118	100.00	3666			
119	100.00	64			
120	100.00	22500			
121	100.00	500			
122	100.00	9500			
123	100.00	8370			
124	100.00	5500			
125	100.00	5521			
126	100.00	321			
127	100.00	1000			
128	100.00	11160			
129	100.00	1076			
130	100.00	150			
131	100.00	400			
132	100.00	400			
133	100.00	300			
134	100.00	600			
135	100.00	3666			
136	100.00	64			
137	100.00	22500			
138	100.00	500			
139	100.00	9500			
140	100.00	8370			
141	100.00	5500			
142	100.00	5521			
143	100.00	321			
144	100.00	1000			
145	100.00	11160			
146	100.00	1076			
147	100.00	150			
148	100.00	400			
149	100.00	400			
150	100.00	300			
151	100.00	600			
152	100.00	3666			
153	100.00	64			
154	100.00	22500			
155	100.00	500			
156	100.00	9500			
157	100.00	8370			
158	100.00	5500			
159	100.00	5521			
160	100.00	321			
161	100.00	1000			
162	100.00	11160			
163	100.00	1076			
164	100.00	150			
165	100.00	400			
166	100.00	400			
167	100.00	300			
168	100.00	600			
169	100.00	3666			
170	100.00	64			
171	100.00	22500			
172	100.00	500			
173	100.00	9500			
174	100.00	8370			
175	100.00	5500			
176	100.00	5521			
177	100.00	321			
178	100.00	1000			
179	100.00	11160			
180	100.00	1076			
181	100.00	150			
182	100.00	400			
183	100.00	400			
184	100.00	300			
185	100.00	600			
186	100.00	3666			
187	100.00	64			
188	100.00	22500			
189	100.00	500			
190	100.00	9500			
191	100.00	8370			
192	100.00	5500			
193	100.00	5521			
194	100.00	321			
195	100.00	1000			
196	100.00	11160			
197	100.00	1076			
198	100.00	150			
199	100.00	400			
200	100.00	400			
201	100.00	300			
202	100.00	600			
203	100.00	3666			
204	100.00	64			
205	100.00	22500			
206	100.00	500			
207	100.00	9500			
208	100.00	8370			
209	100.00	5500			
210	100.00	5521			
211	100.00	321			
212	100.00	1000			
213	100.00	11160			
214	100.00	1076			
215	100.00	150			
216	100.00	400			
217	100.00	400			
218	100.00	300			
219	100.00	600			
220	100.00	3666			
221	100.00	64			
222	100.00	22500			
223	100.00	500			
224	100.00	9500			
225	100.00	8370			
226	100.00	5500			
227	100.00	5521			
228	100.00	321			
229	100.00	1000			
230	100.00	11160			
231	100.00	1076			
232	100.00	150			
233	100.00	400			
234	100.00	400			
235	100.00	300			
236	100.00	600			
237	100.00	3666			
238	100.00	64			
239	100.00	22500			
240	100.00	500			
241	100.00	9500			
242	100.00	8370			
243	100.00	5500			
244	100.00	5521			
245	100.00	321			
246	100.00	1000			
247	100.00	11160			
248	100.00	1076			
249	100.00	150			
250	100.00	400			
251	100.00	400			
252	100.00	300			
253	100.00	600			
254	100.00	3666			
255	100.00	64			
256	100.00	22500			
257	100.00	500			
258	100.00	9500			
259	100.00	8370			
260	100.00	5500			
261	100.00	5521			
262	100.00	321			
263	100.00	1000			
264	100.00	11160			
265	100.00	1076			
266	100.00	150			
267	100.00	400			
268	100.00	400			
269	100.00	300			
270	100.00	600			
271	100.00	3666			
27					

ALR Cockpit Control
Unit Cost \$200
MTBR 10,000 Hours

ORLA Outputs

Line	OFLA INPUT DATA	ORLA OUTPUTS	Discard Cost	INTERMEDIATE RETURNS	Desert Reserve
1	200.00	225000			
2	200.00	3000			
3	200.00	186000	4	414000	
4	100.00	5521			
5	100.00	6000			
6	100.00	5530			
7	1.00	247	9	17348	
8	1.00	15			
9	1.00	175			
10	1.00	363			
11	1.00	530	11	411886	
12	1.00	11			
13	4.00	221000			
14	4.00	19700			
15	4.00	15000			
16	4.00	18000			
17	4.00	10000			
18	4.00	16500	19	264500	
19	4.00	5221			
20	4.00	2087			
21	4.00	9000			
22	4.00	1140			
23	4.00	5100			
24	4.00	1479			
25	4.00	55	27	24827	
26	4.00	95			
27	4.00	750	30	150	
28	4.00	2000			
29	4.00	300	34	2750	
30	4.00	600			
31	4.00	3779	37	900	
32	4.00	40			
33	4.00	3779	40	3779	41
34	4.00	225000			
35	4.00	10000			
36	4.00	16740			
37	4.00	11600	47	273340	
38	4.00	5521			
39	4.00	3587			
40	4.00	2000			
41	4.00	11160	52	22268	
42	4.00	1076	54	1076	
43	4.00	150			
44	4.00	400	58	550	
45	4.00	300			
46	4.00	600	61	900	
47	4.00	5446	64	5446	65
48	4.00	64			
49	4.00	203330			
50	4.00	65			

ALR COCKPIT CONTROL
UNIT COST '50
MTBR 5000 HOURS

ORLA OUTPUTS

LINE NO.	ORLA INPUT DATA	UNIT COST	MTBR	ORLA OUTPUTS	DISCARD COST	INTERMEDIATE REPAIR	DEPT REPAIR
1	50.00			56250			
2	50.00			11250			
3	200.00			93250			
4	236.00			150750			
5	1.00			5321			
6	1.00			2300			
7	1.00			5640			
8	1.00			247			
9	1.00			13908			
10	1.00			322			
11	1.00			727			
12	1.00			1079			
13	100.00			16250	162217		
14	1.00			1700			
15	1.00			9250			
16	1.00			625			
17	1.00			8375			
18	1.00			7500			
19	1.00			5221			
20	1.00			3887			
21	1.00			2600			
22	1.00			1220			
23	1.00			1220			
24	1.00			3600			
25	1.00			1479			
26	206.23			19937			
27	375.63			194			
28	150.00			750			
29	231.09			301			
30	587.49			750			
31	1.00			2000			
32	1.00			34			
33	1.00			2750			
34	1.00			350			
35	1.00			630			
36	1.00			37			
37	69.00			7578			
38	1.00			900			
39	12.00			40			
40	10.00			7578			
41	225.00			41			
42				56250			
43				11250			
44				93250			
45				8303			
46				5500			
47				79643			
48				5321			
49				3587			
50				500			
51				22380			
52				31988			
53				2158			
54				150			
55				400			
56				500			
57				900			
58				10921			
59				61			
60				900			
61				10921			
62				64			
63				10921			
64				65			
65				10921			

ALR Cockpit Control
UNIT Cost \$100
MTBR 5000 Hours

LINE	QTY	UNIT COST	TOTAL COST	REMARKS
1	1	112900	112900	
2	2	2000	4000	
3	3	186500	559500	
4	4	5521	22084	
5	5	4000	16000	
6	6	7500	30000	
7	7	247	988	
8	8	352	1408	
9	9	727	2908	
10	10	1979	7916	
11	11	1079	4316	
12	12	1979	7916	
13	13	112900	451320	
14	14	2000	8000	
15	15	186500	746000	
16	16	5521	22112	
17	17	4000	16000	
18	18	7500	30000	
19	19	16750	67000	
20	20	5521	22112	
21	21	3827	15308	
22	22	5000	20000	
23	23	2220	8880	
24	24	1100	4400	
25	25	1100	4400	
26	26	1474	5896	
27	27	107	428	
28	28	194	776	
29	29	750	3000	
30	30	2900	11600	
31	31	300	1200	
32	32	600	2400	
33	33	7578	30312	
34	34	40	1600	
35	35	112900	451320	
36	36	2000	8000	
37	37	186500	746000	
38	38	5521	22112	
39	39	4000	16000	
40	40	7500	30000	
41	41	16750	67000	
42	42	5521	22112	
43	43	3827	15308	
44	44	5000	20000	
45	45	2220	8880	
46	46	1100	4400	
47	47	1100	4400	
48	48	1474	5896	
49	49	107	428	
50	50	194	776	
51	51	750	3000	
52	52	2900	11600	
53	53	300	1200	
54	54	600	2400	
55	55	7578	30312	
56	56	40	1600	
57	57	112900	451320	
58	58	2000	8000	
59	59	186500	746000	
60	60	5521	22112	
61	61	4000	16000	
62	62	7500	30000	
63	63	16750	67000	
64	64	5521	22112	
65	65	3827	15308	
66	66	5000	20000	
67	67	2220	8880	
68	68	1100	4400	
69	69	1100	4400	
70	70	1474	5896	
71	71	107	428	
72	72	194	776	
73	73	750	3000	
74	74	2900	11600	
75	75	300	1200	
76	76	600	2400	
77	77	7578	30312	
78	78	40	1600	
79	79	112900	451320	
80	80	2000	8000	
81	81	186500	746000	
82	82	5521	22112	
83	83	4000	16000	
84	84	7500	30000	
85	85	16750	67000	
86	86	5521	22112	
87	87	3827	15308	
88	88	5000	20000	
89	89	2220	8880	
90	90	1100	4400	
91	91	1100	4400	
92	92	1474	5896	
93	93	107	428	
94	94	194	776	
95	95	750	3000	
96	96	2900	11600	
97	97	300	1200	
98	98	600	2400	
99	99	7578	30312	
100	100	40	1600	

ALR Cockpit Control
Unit Cost \$ 200
MTBR 5000 Hours

ORLA OUTPUTS

ORLA INPUT DATA					
1	266.00				
2	266.00				
3	200.00				
4	200.00				
5	1.00				
6	1.00				
7	5.00				
8	3.00				
9	1.00				
10	2.00				
11	4.00				
12	100.00				
13	1.00				
14	1.00				
15	1.00				
16	4.00				
17	4.00				
18	20.00				
19	6.00				
20	20.00				
21	2.00				
22	12.50				
23	20.00				
24	20.00				
25	20.00				
26	20.00				
27	20.00				
28	20.00				
29	20.00				
30	20.00				
31	20.00				
32	20.00				
33	20.00				
34	20.00				
35	20.00				
36	20.00				
37	20.00				
38	20.00				
39	20.00				
40	20.00				
41	225.00				

1	225000				
2	373000	4	602000		
3	5231				
4	2500				
5	7500				
6	247	9	21268		
7					
8					
9	352				
10	727	12	1079	13	
11					
12					
13	225000				
14	4020				
15	37500				
16	1500				
17	33500	19	101000		
18					
19	5231				
20	1537				
21	8070				
22	1070				
23	2220				
24	6490				
25	1479	27	30407		
26					
27	107				
28	174	30	301		
29	750				
30					
31	2000	34	2750		
32					
33	320				
34	600	37	900		
35					
36	7578	40	7578	41	
37					
38					
39					
40					
41					
42	225000				
43	1000				
44	37000				
45	33370				
46	22000	47	318370		
47					
48	5231				
49	1537				
50	2500				
51	22380	52	33488		
52					
53	2158	54	2158		
54	150				
55					
56	400	58	550		
57					
58	300				
59	600	61	900		
60					
61	10921	64	10921	65	
62					
63					

624357 Discrep Cost

342036 Interchangeable Parts

165387 Depot Repair

ALR Cocorpit Control
UNIT COST \$50 -
RTBR 1000 Hours

ORLA INPUT DATA

1	30.24
2	10.67
3	1000.00
4	1.50
5	.43
6	.20
7	3.38
8	2.00
9	4.00
10	4.00
11	36.33
12	100.00
13	.55
14	.03
15	.70
16	4.00
17	.20
18	2.00
19	6.00
20	20.00
21	12.00
22	12.00
23	12.00
24	276.23
25	375.63
26	150.00
27	233.09
28	587.49
29	.19
30	.10
31	.50
32	1.35
33	4.00
34	10.00
35	65.00
36	12.00
37	10.00
38	10.00
39	10.00
40	10.00
41	225.00

DATA OUTPUTS

1	56250	
2	4750	
3	465750	4
5	5521	
6	9500	
7	7370	
8	287	9
10	1756	
11	3633	12
13	5309	13
14	56250	
15	3750	
16	46500	
17	1500	
18	41875	15
19	140075	
20	5521	
21	3200	
22	3000	
23	11160	
24	9000	
25	1477	
26	523	27
29	969	
30	750	10
31	2000	34
32	300	
33	600	17
34	37848	
35	37848	41
40	37848	41
42	56250	
43	1000	
44	46500	
45	41018	
46	25150	47
47	170010	
48	5521	
49	3537	
50	2000	
51	111780	
52	10777	52
53	10777	54
54	10777	
55	150	
56	400	58
57	300	
58	600	61
59	900	
60	34547	61
61	34547	
62	34547	64
63	34547	65
64	34547	65

534907 Discard Costs

234127 Intermediate Remains

304400 Direct Remains

ALL COCREDIT CONTROL
UNIT COST \$/100
HTBR 1000 HOURS

ORLA OUTPUT

ORLA INPUT DATA

1	100.00
2	100.00
3	100.00
4	100.00
5	100.00
6	100.00
7	100.00
8	100.00
9	100.00
10	100.00
11	100.00
12	100.00
13	100.00
14	100.00
15	100.00
16	100.00
17	100.00
18	100.00
19	100.00
20	100.00
21	100.00
22	100.00
23	100.00
24	100.00
25	100.00
26	100.00
27	100.00
28	100.00
29	100.00
30	100.00
31	100.00
32	100.00
33	100.00
34	100.00
35	100.00
36	100.00
37	100.00
38	100.00
39	100.00
40	100.00
41	100.00

1	112500			
2	931500	4	1033500	
3	5821			
4	18600			
5	7800			
6	247			
7	1756	9	32268	
8	3633			
9	5389	12	5389	13
10	112500			
11	7800			
12	93000			
13	2520			
14	83750	19	299000	
15	5821			
16	1587			
17	15060			
18	4500			
19	11160			
20	12600			
21	1679	27	53847	
22	328			
23	947	30	1307	
24	750			
25	2000	34	2750	
26	300			
27	600	37	900	
28	37848			
29	37848	40	37848	41
30	112500			
31	2000			
32	93000			
33	63835			
34	50300	47	341635	
35	5221			
36	287			
37	111780	52	124888	
38	10777	54	10777	
39	150			
40	450			
41	300	58	500	
42	600	61	900	
43	54547	64	54547	65

1051157 PURCHASE COST

1051151 INTERMEDIATE RETAIN

511207 DEPOT REPAIR

ALR COCKPIT CONTRA
UNIT COST \$ 200
MTBR 1000 HOURS

ORLA OUTPUTS

LINE	AMOUNT	DESCRIPTION
1	225000	
2	18000	
3	1863000	4 2107000
5	5521	
6	38000	
7	7500	
8	247	
10	1756	9 51268
11	3633	
12	5389	13 2143637 <u>DISCARD COST</u>
14	225000	
15	183000	
16	167500	19 597000
20	5221	
21	3537	
22	30000	
23	7000	
24	11160	
25	14830	
26	1475	27 75547
28	533	
29	56530	
31	730	30 1307
32	2000	34 2750
35	390	
36	600	37 900
38	37848	
39	40	40 37848 41
42	225000	
43	4000	
44	186690	
45	167670	
46	100660	47 683270
48	5521	
49	3157	
50	8600	
51	111780	52 128083
53	10777	54 10777
55	150	
56	400	
57	300	58 550
58	600	
60	600	61 900
62	54547	
63	64	64 54547 65
65	873912	<u>INTERMEDIATE RETAIN</u>
66	873912	<u>DEBIT RETAIN</u>

ORLA INPUT DATA

1	225.00
2	200.00
3	1800.00
4	1000.00
5	5.521
6	38000
7	7500
8	247
9	1756
10	5.500
11	1.000
12	2.000
13	4.389
14	190.000
15	183000
16	167500
17	5221
18	4.000
19	20.000
20	7000
21	20.000
22	3.000
23	12.830
24	1475
25	533
26	56523
27	730
28	2000
29	390
30	600
31	37848
32	40
33	1.000
34	2.000
35	4.000
36	10.000
37	60.000
38	5.000
39	12.000
40	10.000
41	225.000

ALL CABIN CONTROL
UNIT COST \$ 75
ITRA 19,000 Hours

DATA INPUT DATA

1	25.00
2	25.00
3	100.00
4	150.00
5	1.00
6	.10
7	.30
8	1.00
9	2.00
10	2.00
11	2.00
12	2.00
13	150.00
14	.05
15	.00
16	.00
17	4.75
18	2.00
19	2.00
20	2.00
21	2.00
22	2.00
23	2.00
24	2.00
25	2.00
26	2.00
27	2.00
28	2.00
29	2.00
30	2.00
31	2.00
32	2.00
33	2.00
34	2.00
35	2.00
36	2.00
37	2.00
38	2.00
39	2.00
40	2.00
41	225.00

ORLA OUTPUTS

1	84375
2	3125
3	69750
4	155250
5	5521
6	2221
7	5580
8	247
9	13598
10	175
11	363
12	538
13	169286
14	84375
15	3125
16	7125
17	6300
18	6300
19	5521
20	3567
21	2250
22	2250
23	1310
24	1140
25	3280
26	1726
27	18814
28	55
29	51
30	30
31	750
32	136
33	2000
34	2750
35	300
36	600
37	900
38	3779
39	40
40	3779
41	135319
42	84375
43	375
44	7125
45	6278
46	4350
47	102503
48	5221
49	3227
50	7720
51	11160
52	21018
53	1076
54	1076
55	150
56	400
57	58
58	300
59	600
60	900
61	5446
62	64
63	5446
64	65
65	131493

169286 Discard Cost

135319 Intermediate Repair

131493 Direct Repair

ALR CABIN CONTROL
UNIT COST \$150
MTBR 10,000 HOURS

OSLA INPUT DATA

1	150.00
2	150.00
3	100.00
4	100.00
5	1.00
6	1.00
7	1.00
8	1.00
9	1.00
10	1.00
11	1.00
12	1.00
13	1.00
14	1.00
15	1.00
16	1.00
17	1.00
18	1.00
19	1.00
20	1.00
21	1.00
22	1.00
23	1.00
24	1.00
25	1.00
26	1.00
27	1.00
28	1.00
29	1.00
30	1.00
31	1.00
32	1.00
33	1.00
34	1.00
35	1.00
36	1.00
37	1.00
38	1.00
39	1.00
40	1.00
41	1.00
42	1.00
43	1.00
44	1.00
45	1.00
46	1.00
47	1.00
48	1.00
49	1.00
50	1.00
51	1.00
52	1.00
53	1.00
54	1.00
55	1.00
56	1.00
57	1.00
58	1.00
59	1.00
60	1.00
61	1.00
62	1.00
63	1.00
64	1.00
65	1.00
66	1.00
67	1.00
68	1.00
69	1.00
70	1.00
71	1.00
72	1.00
73	1.00
74	1.00
75	1.00
76	1.00
77	1.00
78	1.00
79	1.00
80	1.00
81	1.00
82	1.00
83	1.00
84	1.00
85	1.00
86	1.00
87	1.00
88	1.00
89	1.00
90	1.00
91	1.00
92	1.00
93	1.00
94	1.00
95	1.00
96	1.00
97	1.00
98	1.00
99	1.00
100	1.00

OSLA OUTPUTS

1	168750	
2	139500	4
3	310500	
4	5521	
5	4255	
6	5580	
7	247	
8	15848	
9	175	
10	363	
11	538	13
12	13	
13	168750	
14	17250	
15	17250	
16	17250	
17	17250	
18	12600	19
19	5521	
20	3587	
21	4500	
22	1800	
23	1800	
24	1140	
25	5640	
26	17250	27
27	51	
28	31	
29	750	30
30	3000	34
31	300	
32	600	
33	3779	37
34	3779	
35	40	40
36	168750	
37	750	
38	14250	
39	12335	
40	5700	
41	5521	47
42	48	
43	1530	
44	1530	
45	11160	52
46	1076	
47	150	54
48	150	
49	400	
50	400	58
51	100	
52	630	61
53	5446	
54	5446	64
55	5446	65
56	5446	
57	5446	
58	5446	
59	5446	
60	5446	
61	5446	
62	5446	
63	5446	
64	5446	
65	5446	
66	5446	
67	5446	
68	5446	
69	5446	
70	5446	
71	5446	
72	5446	
73	5446	
74	5446	
75	5446	
76	5446	
77	5446	
78	5446	
79	5446	
80	5446	
81	5446	
82	5446	
83	5446	
84	5446	
85	5446	
86	5446	
87	5446	
88	5446	
89	5446	
90	5446	
91	5446	
92	5446	
93	5446	
94	5446	
95	5446	
96	5446	
97	5446	
98	5446	
99	5446	
100	5446	

1.6386 Discard Cost

22.622 Intermediate Repair

27.8743 Repair Reserve

ALR CABIN CONTROL

UNIT COST \$300
MTBR 19000 Hours

ORLA OUTPUTS

ORLA	INPUT DATA	UNIT COST	OUTPUTS	REMARKS
1	300.00		337500	
2	300.00		8500	
3	300.00		275000	4 621000
4	100.00		5521	
5	100.00		6000	
6	1.00		5580	
7	1.00		247	
8	1.00		20348	9
9	4.00		175	
10	2.00		363	
11	1.00		12	
12	2.00		538	13
13	4.00		337500	
14	100.00		4500	
15	100.00		20500	
16	1.00		500	
17	1.00		25200	19
18	4.00		5521	
19	10.00		1587	
20	10.00		9000	
21	10.00		1800	
22	20.00		1140	
23	12.00		10030	
24	12.00		1726	27
25	300.00		32834	
26	300.00		55	
27	300.00		81	10
28	300.00		750	
29	300.00		2000	14
30	1.00		300	37
31	1.00		600	37
32	1.00		3779	40
33	1.00		40	41
34	1.00		337500	
35	1.00		1500	
36	1.00		28500	
37	1.00		25110	
38	1.00		17400	47
39	1.00		5521	
40	1.00		1587	
41	1.00		3000	
42	1.00		11160	52
43	1.00		10765	54
44	1.00		150	
45	1.00		400	58
46	1.00		300	
47	1.00		600	61
48	1.00		5446	64
49	1.00		5446	65
50	1.00		5446	65

541386 Discard Cost

437019 Intermediate Repair

401210 Dent Repair

ALR CABIN CONTROL
UNIT COST \$ 75
MTBR 5000 HOURS
 A CREW UNIT IN

1	75.00
2	75.00
3	200.00
4	200.00
5	1.00
6	1.00
7	6.00
8	1.00
9	2.00
10	4.00
11	5.00
12	100.00
13	.05
14	.05
15	.05
16	4.00
17	7.00
18	7.00
19	7.00
20	20.00
21	1.00
22	12.00
23	6.00
24	200.00
25	375.00
26	150.00
27	50.00
28	50.00
29	1.00
30	1.00
31	1.00
32	1.00
33	4.00
34	10.00
35	60.00
36	15.00
37	12.00
38	10.00
39	20.00
40	225.00
41	

DATA OUTPUTS

1	84375		
2	1500		
3	139875	4	225750
5	5221		
6	3206		
7	7209		
8	247	9	16268
10	352		
11	727	12	1079
13			13
14	84275		
15	1200		
16	13875		
17	12700		
18	12700	19	113250
20	5521		
21	3557		
22	3000		
23	1800		
24	2220		
25	5040		
26	1726	27	22894
28	107		
29	162	30	269
31	750		
32	2000	34	2750
33	300		
36	600	37	000
38	7570		
39	40	40	7578
41			41
42	84375		
43	13875		
44	12566		
45	8250	47	119464
48	5521		
49	3587		
50	750		
51	22330	52	32238
53	2138	54	2159
55	150		
56	400	58	150
57	300		
59	600	61	990
62	10921		
63	64	64	10921
65			65

Discard Cost

INTERMEDIATE REPAIR

Major Repair

ALR CABIN CONTROL
UNIT COST @ 150
MTBR 5000 HOURS

ORLA EVENTS

LINE	ORLA INPUT DATA	UNIT COST	MTBR	EVENTS	DISCARD COST
1	150.00	168750			
2	150.00	3000			
3	200.00	279750	4	431500	
4	1.00	5521			
5	1.00	6000			
6	1.00	7579			
7	1.00	247			
8	6.00	312	9	19268	
9	1.00	727			
10	2.00	1079	13	1079	
11	4.00	1079	13	1079	
12	100.00	168750			
13	100.00	3000			
14	200.00	27750			
15	1.00	370			
16	1.00	1370			
17	4.00	25700			
18	15.00	1726	16	226050	
19	16.00	1726	16	226050	
20	20.00	107	27		
21	30.00	162	30		
22	3.00	289			
23	12.00	289			
24	18.00	289			
25	22.00	289			
26	26.00	289			
27	26.00	289			
28	107	289			
29	162	289			
30	289	289			
31	730	289			
32	2000	2750			
33	34	2750			
34	360	2750			
35	800	2750			
36	37	2750			
37	5.00	900			
38	12.00	900			
39	10.00	900			
40	225.00	7578	41	7578	
41	225.00	7578	41	7578	
42	168750	168750			
43	3000	3000			
44	27750	27750			
45	25177	25177			
46	16500	16500			
47	47	238927			
48	5521	5521			
49	3587	3587			
50	1500	1500			
51	22380	22380			
52	52	32988			
53	2150	2150			
54	34	2158			
55	170	2158			
56	400	2158			
57	57	2158			
58	300	2158			
59	600	2158			
60	61	2158			
61	10921	10921			
62	62	10921			
63	64	10921			
64	64	10921			
65	64	10921			

206111 Increase in W/E Repair

234444 Repair Repair

ALR CABIN CONTROL
UNIT COST \$ 300
ITBR 5000 HOURS

LINE	DESCRIPTION	AMOUNT	DATE
1	337500		
2	6000		
3	595500	4	903000
5	5521		
6	12000		
7	7500		
8	247	9	25263
10	352		
11	727	12	1079
		13	
14	337500		
15	6000		
16	55500		
17	1600		
18	59400		431200
19			
20	5221		
21	12000		
22	7500		
23	3000		
24	2220		
25	10030		
26	1726	27	38734
28	107		
29	162		
30	750	30	269
31			
32	2000		
33	300	34	2750
35	600		
36	7578	37	900
38			
39		40	7578
41			
42	337500		
43	1500		
44	55500		
45	50555		
46	33070	47	477855
48	5521		
49	3527		
50	3000		
51	22330		
52		52	36488
53	2158	54	2158
55	150		
56	400	58	530
59	300		
60	600		
61	900		
62	10921	64	10921
63			
64			

ORLA OUTRIG

DISCARD COST

INTERMEDIATE REPAIR

DEPT REPAIR

ALL CABIN CONTROL

UNIT COST \$ 75
HTOR 1000 Hours

ORLA OUTPUTS

LINE NO.	ORLA INPUT DATA	UNIT COST	HTOR	DISCARD COST	INTERMEDIATE REPAIR	DEPOT REPAIR
1	75.00					
2	75.00					
3	1600.00			790125		
4	1600.00					
5	1.00					
6	1.00					
7	1.00					
8	1.00					
9	1.00					
10	1.00					
11	1.00					
12	1.00					
13	1.00					
14	1.00					
15	1.00					
16	1.00					
17	1.00					
18	1.00					
19	1.00					
20	1.00					
21	1.00					
22	1.00					
23	1.00					
24	1.00					
25	1.00					
26	1.00					
27	1.00					
28	1.00					
29	1.00					
30	1.00					
31	1.00					
32	1.00					
33	1.00					
34	1.00					
35	1.00					
36	1.00					
37	1.00					
38	1.00					
39	1.00					
40	1.00					
41	1.00					
42	1.00					
43	1.00					
44	1.00					
45	1.00					
46	1.00					
47	1.00					
48	1.00					
49	1.00					
50	1.00					
51	1.00					
52	1.00					
53	1.00					
54	1.00					
55	1.00					
56	1.00					
57	1.00					
58	1.00					
59	1.00					
60	1.00					
61	1.00					
62	1.00					
63	1.00					
64	1.00					
65	1.00					

ALR CABIN CONTROL
UNIT COST \$150
NTDR 1000 HOURS

ORLA OUTPUTS

LINE NO.	ORLA INPUT DATA	ORLA OUTPUTS	REMARKS
1	150.00		
2	150.00		
3	150.00		
4	1000.00	1580210	
5	1.00		
6	1.50		
7	5.00		
8	1.00	41768	
9	6.00		
10	1.00		
11	2.00	5389	13
12	4.00		
13	100.00		
14	.05		
15	.05		
16	.05		
17	.05		
18	4.00	448200	19
19	15.00		
20	6.00		
21	20.00		
22	1.00		
23	12.87		
24	5.93		
25	200.73	67714	27
26	375.68		
27	333.08		
28	567.42		
29	.10		
30	.60		
31	1.30		
32	4.43		
33	10.00		
34	69.00		
35	5.00		
36	12.00		
37	10.00		
38	285.00		
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1622407 DISCARD COST

558251 INTERMEDIATE REPAIR

109113 DEPOT REPAIR

ALR CABIN CONTROL
UNIT COST \$300
TUTOR 1000 HOURS

ORLA OUTPUTS

LINE	UNIT COST	QUANTITY	TOTAL COST	REMARKS
1	300.00	337500	103125000	
2	300.00	28500	8550000	
3	1000.00	2798596	2798596000	
4	1.00	3160500	3160500	
5	1.00	5521	5521	
6	1.00	51000	51000	
7	1.00	727	727	
8	1.00	70268	70268	
9	1.00	5389	5389	
10	1.00	13	13	
11	1.00	13	13	
12	1.00	13	13	
13	1.00	13	13	
14	1.00	13	13	
15	1.00	13	13	
16	1.00	13	13	
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65	1.00	13	13	