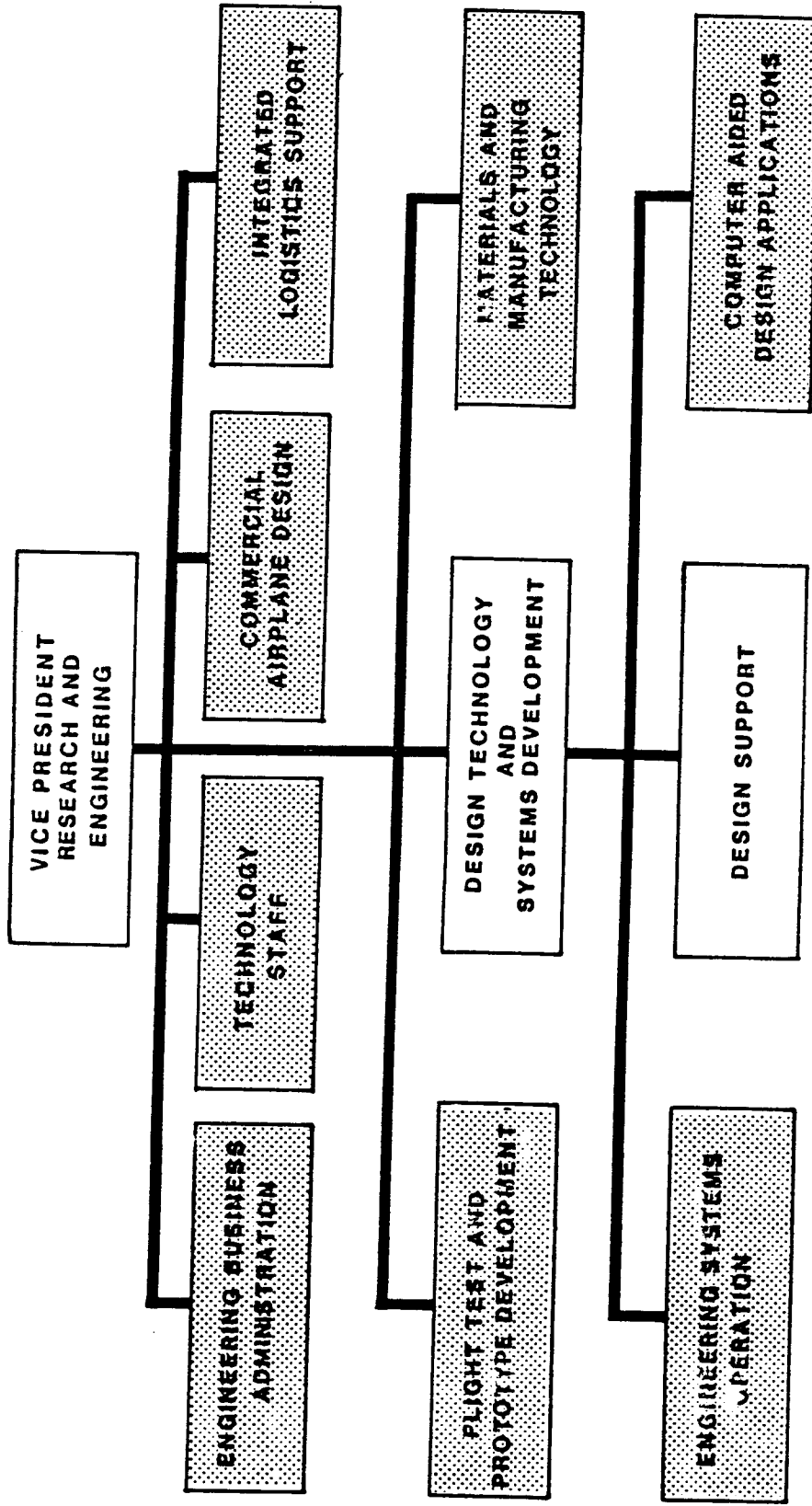
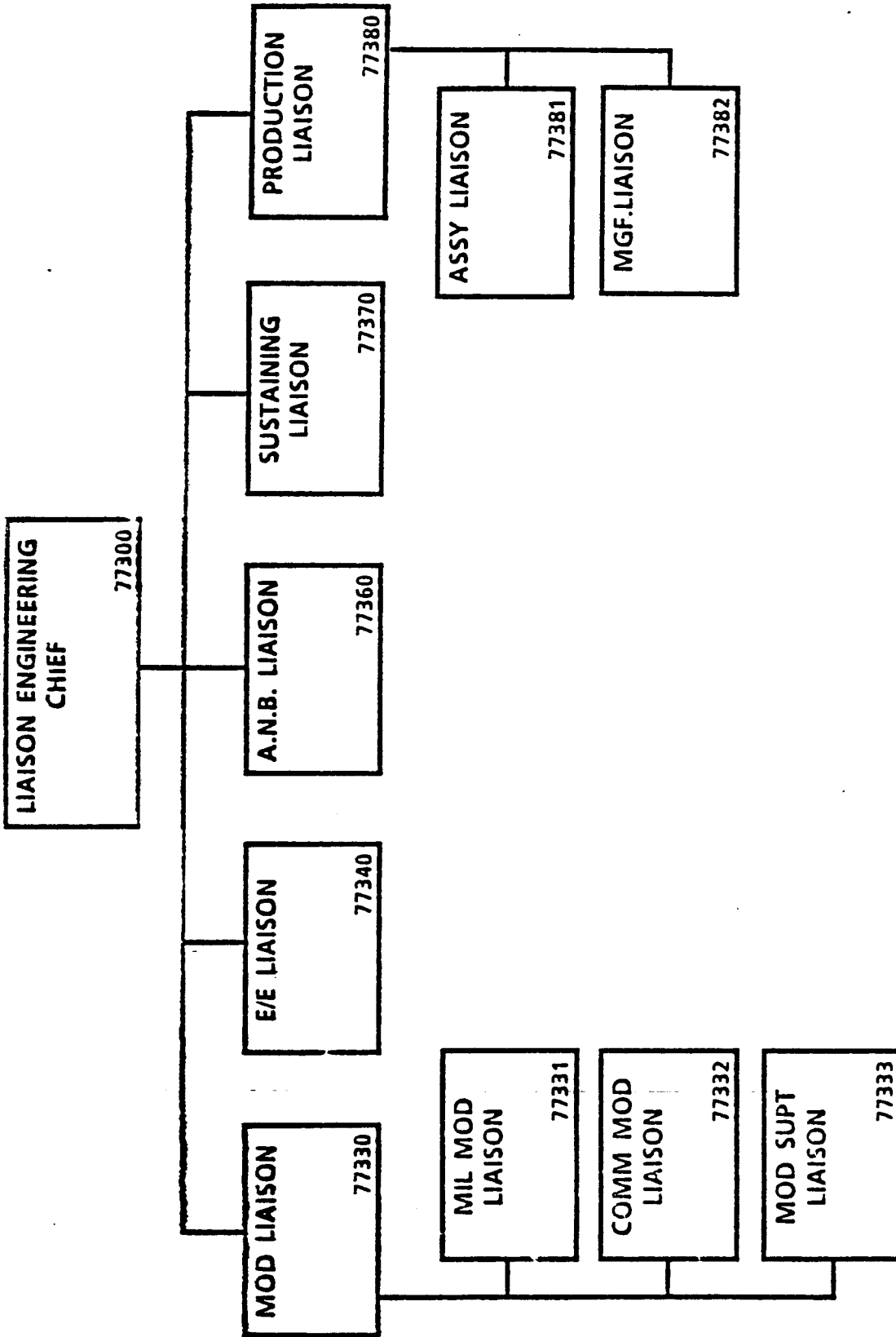


Research And Engineering





FUNCTION

MRB (MATERIAL REVIEW BOARD)

- AUTHORIZED BY MIL-Q-9858A FOR MILITARY PROGRAMS
- AUTHORIZED BY FEDERAL AVIATION REGULATIONS (FAR) FOR COMMERCIAL PROGRAMS

CONFIGURATION CONTROL

- ASSURE DRAWINGS ARE REVISED (MINOR ERRORS)
- ASSURE PROPER CLOSING OF MRB ACTIONS AS REQUIRED BY MIL-STD-1520

SHOP SUPPORT

- PRODUCTION FACILITY CHANGES
- MATERIAL CHANGES
- PROCESS CHANGES
- DRAWING INTERPRETATION

RESPONSIBILITY - CONTINUED

SHOP SUPPORT

○ PRODUCTION FACILITY CHANGE

- REVISE ENGINEERING DRAWINGS TO RELAX TOLERANCES WHEN COST-EFFECTIVE

○ MATERIAL CHANGE

- SUBSTITUTION OF AVAILABLE MATERIAL WHEN ALLOWABLE
- CHANGE TO MORE COST-EFFECTIVE MATERIAL WHEN FUNCTION, SPECIFICATION & QUALITY ALLOWS

○ PROCESS CHANGES

- WORK WITH PROCESS ENGINEERS TO SOLVE PROCESS PROBLEMS
- WORK WITH MANUFACTURING & PROCESS ENGINEERING TO DEVISE MORE PRODUCTIVE, COST-EFFECTIVE USE OF PROCESSES

○ DRAWING INTERPRETATION

- MANY TIMES SYNTAX HAS DIFFERENT MEANING WHEN USED EARLY IN A PROGRAM
- AID SHOP PERSONNEL IN CONCEPTUALIZING DRAWINGS EARLY IN PROGRAM
- CLARIFY CONFLICT OF VIEWS --- REVISE DRAWING

RESPONSIBILITY

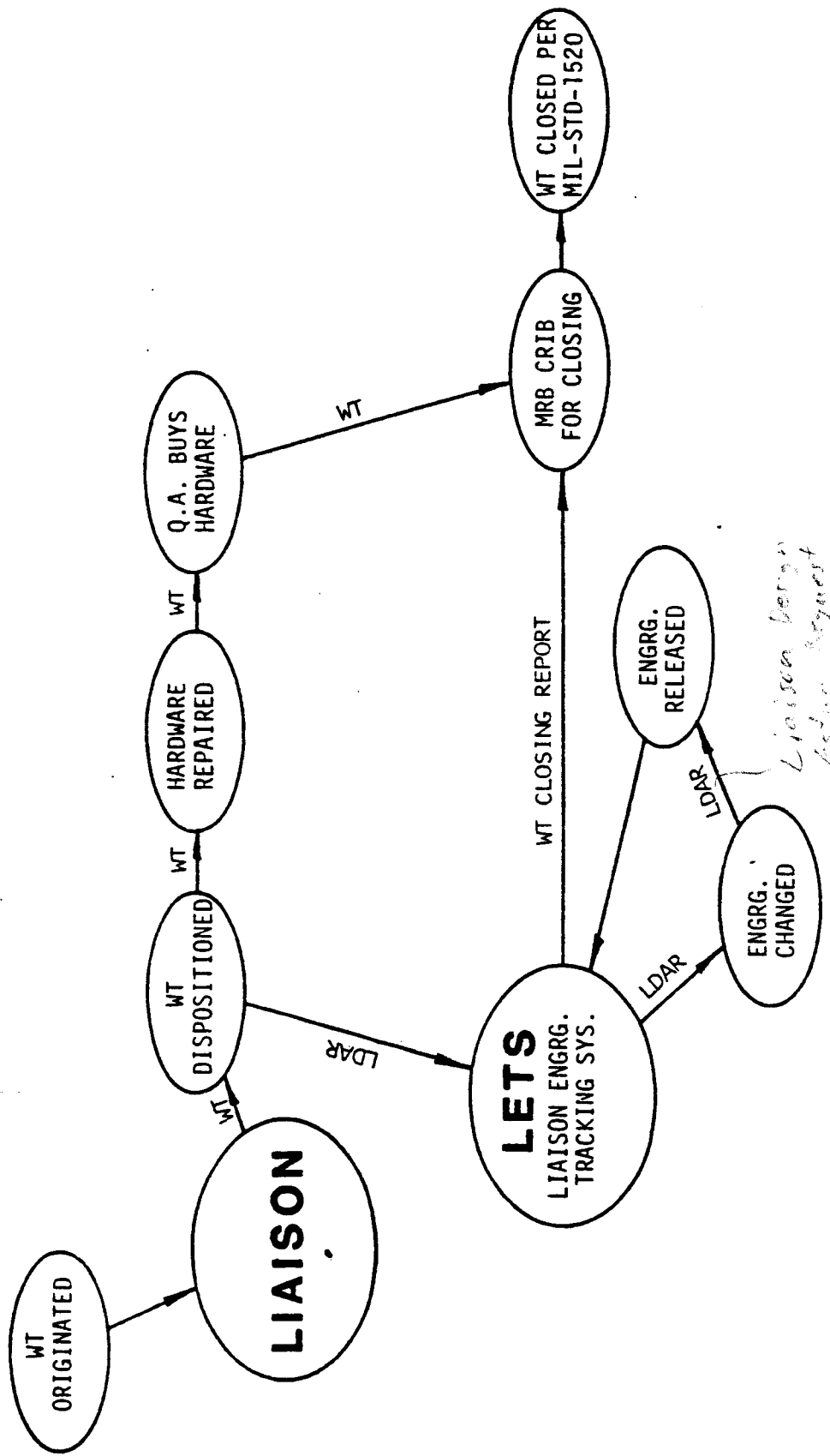
FACILITATE SOLUTIONS TO PROBLEMS

- ARISING FROM ENGINEERING DATA ERRORS
- MANUFACTURING DISCREPANCIES
- ARISING FROM PROCESS PROBLEMS
- INVOLVING COSTS & SCHEDULES
- FROM SOFTWARE DISCREPANCIES

PROVIDE VISIBILITY

- TO PROGRAM MANAGEMENT
- TO RESEARCH & ENGINEERING MANAGEMENT
- TO MANUFACTURING MANAGEMENT
- TOOL TO PROVIDE THE ABOVE IS LIAISON ENGINEERING TRACKING SYSTEM (LETS)

TRACKING WITHHOLD TAGS THROUGH LETS (LIAISON ENGINEERING TRACKING SYSTEM)



WITHHOLD TAG STATUS

APRIL 1987

GOAL: TWO-DAY TURNAROUND TIME FOR DISPOSITION

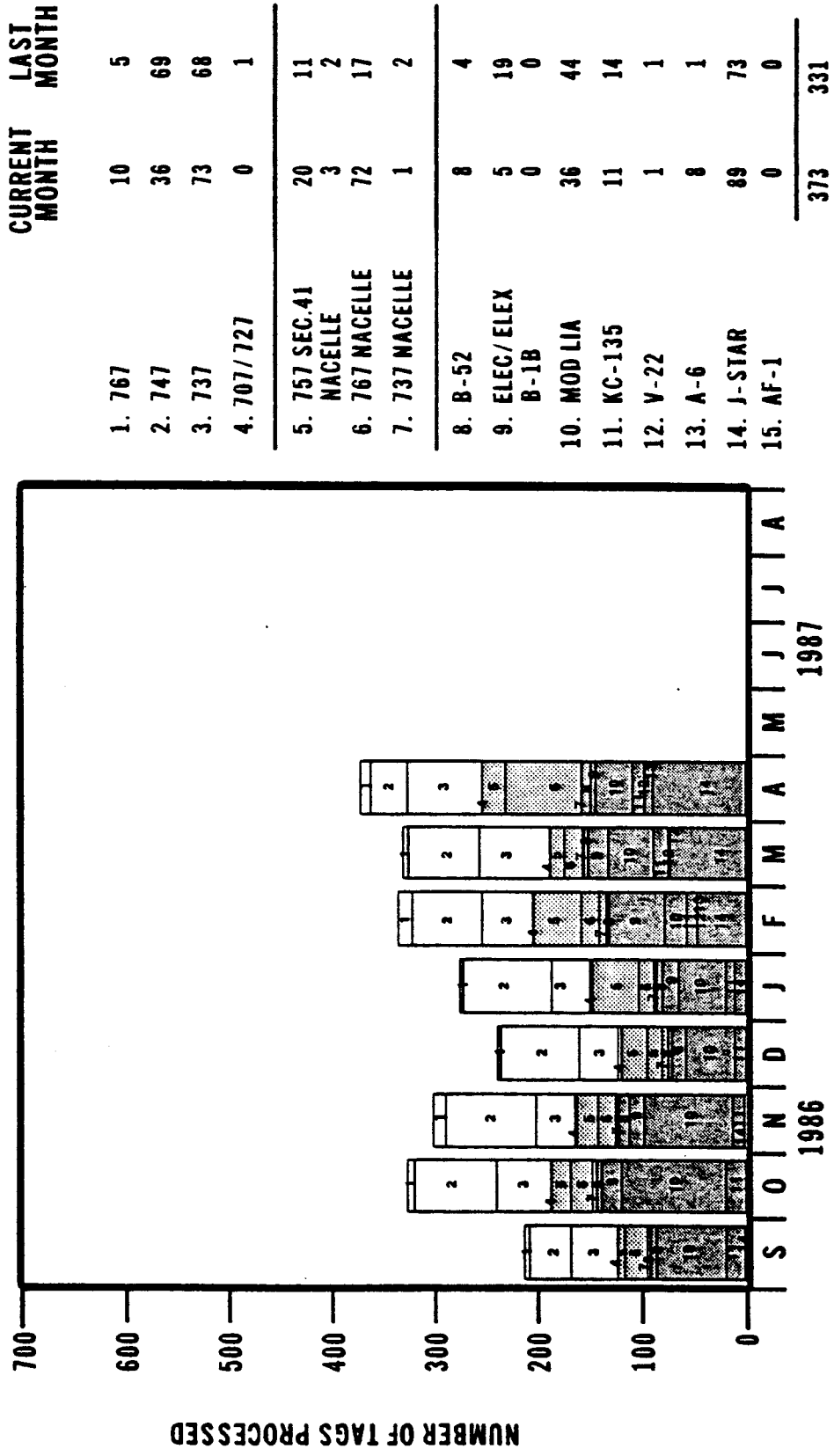
ACHIEVEMENTS: 91 PERCENT OF W/Ts WORKED WITHIN TWO-DAY GOAL

PERFORMANCE

TOTAL TAGS/SPECIAL REPAIRS	OVER TWO-DAY TURNAROUND
4131	1198
	356

BOEING MILITARY AIRPLANE COMPANY

DISTRIBUTION OF PROCESSED TAGS ATTRIBUTED ENGINEERING ERRORS

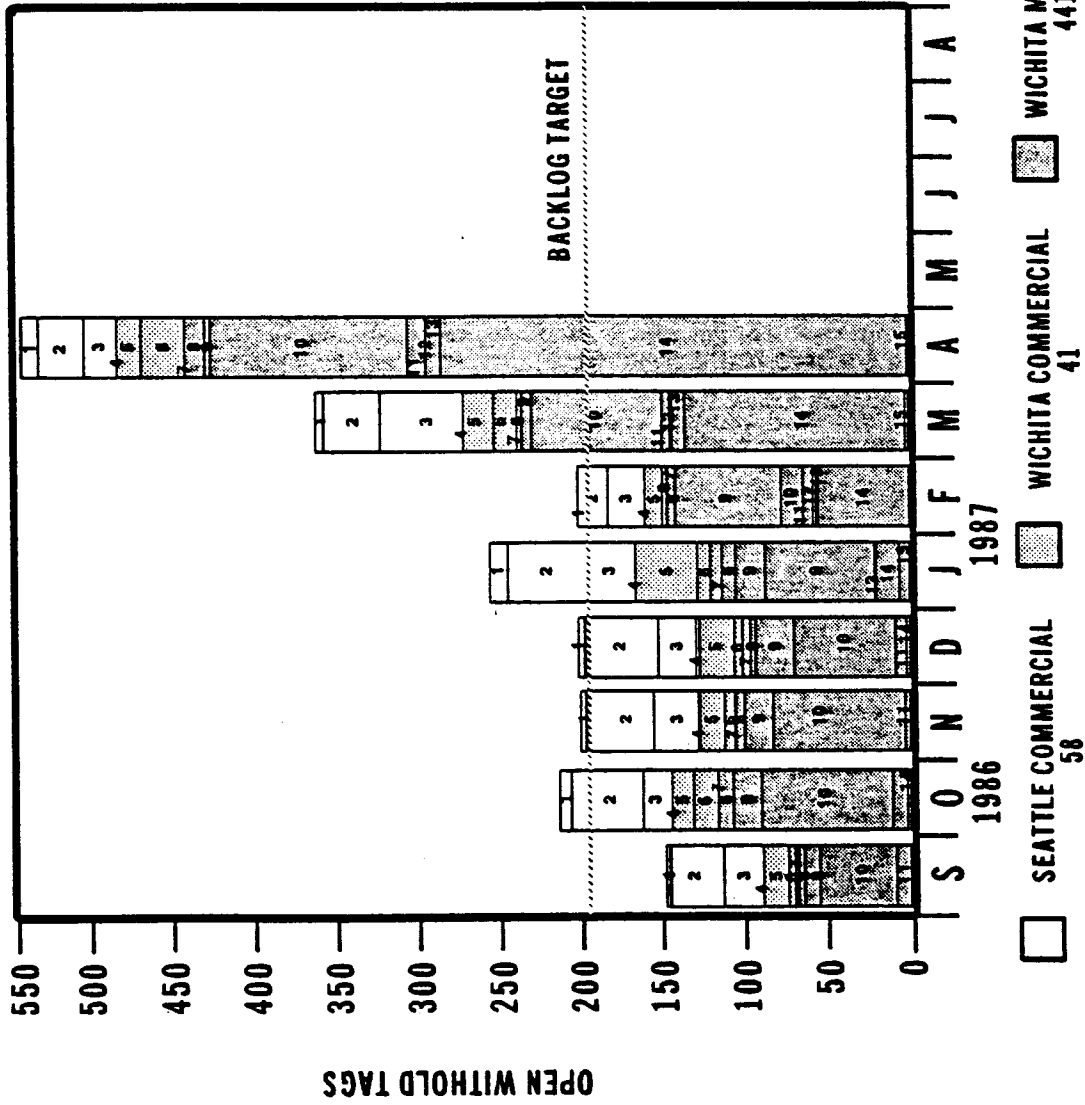


SEATTLE COMMERCIAL 119
 WICHITA COMMERCIAL 96
 WICHITA MILITARY 158

	CURRENT MONTH	LAST MONTH
1. 767	10	5
2. 747	36	69
3. 737	73	68
4. 707/727	0	1
<hr/>		
5. 757 SEC.41 NACELLE	20	11
6. 767 NACELLE	3	2
7. 737 NACELLE	72	17
8. B-52	1	2
<hr/>		
9. B-1B	8	4
9. ELEC/ELEX	5	19
10. MOD LIA	0	0
11. KC-135	36	44
12. V-22	11	14
13. A-6	1	1
14. J-STAR	8	1
15. AF-1	89	73
Total	373	331

WITHHOLD TAG BACKLOG

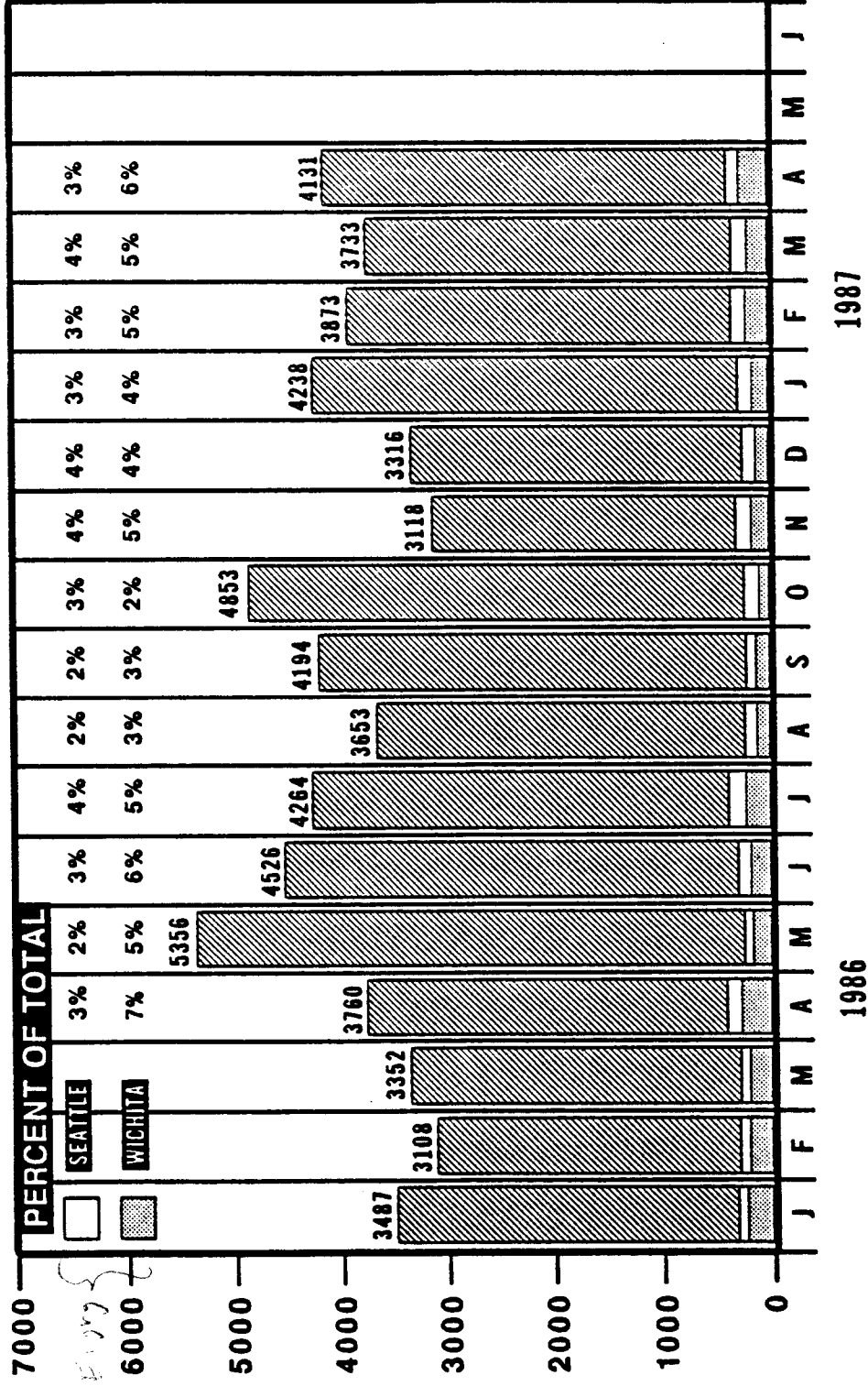
ENGINEERING LIAISON



	CURRENT MONTH	LAST MONTH
1. 767	10	5
2. 747	28	35
3. 737	20	50
4. 707/727	0	0
5. 757 SEC.41 NACELLE	15	17
6. 767 NACELLE	0	2
7. 737 NACELLE	26	14
7. 737 NACELLE	0	0
8. B-52	12	3
9. ELEC/ELEX B-1B	3	6
9. ELEC/ELEX B-1B	1	0
10. MOD LIA	120	81
11. KC-135	11	5
12. V-22	0	1
13. A-6	9	8
14. J-STAR	284	133
15. AF-1	1	2
	540	362

BOEING MILITARY AIRPLANE COMPANY

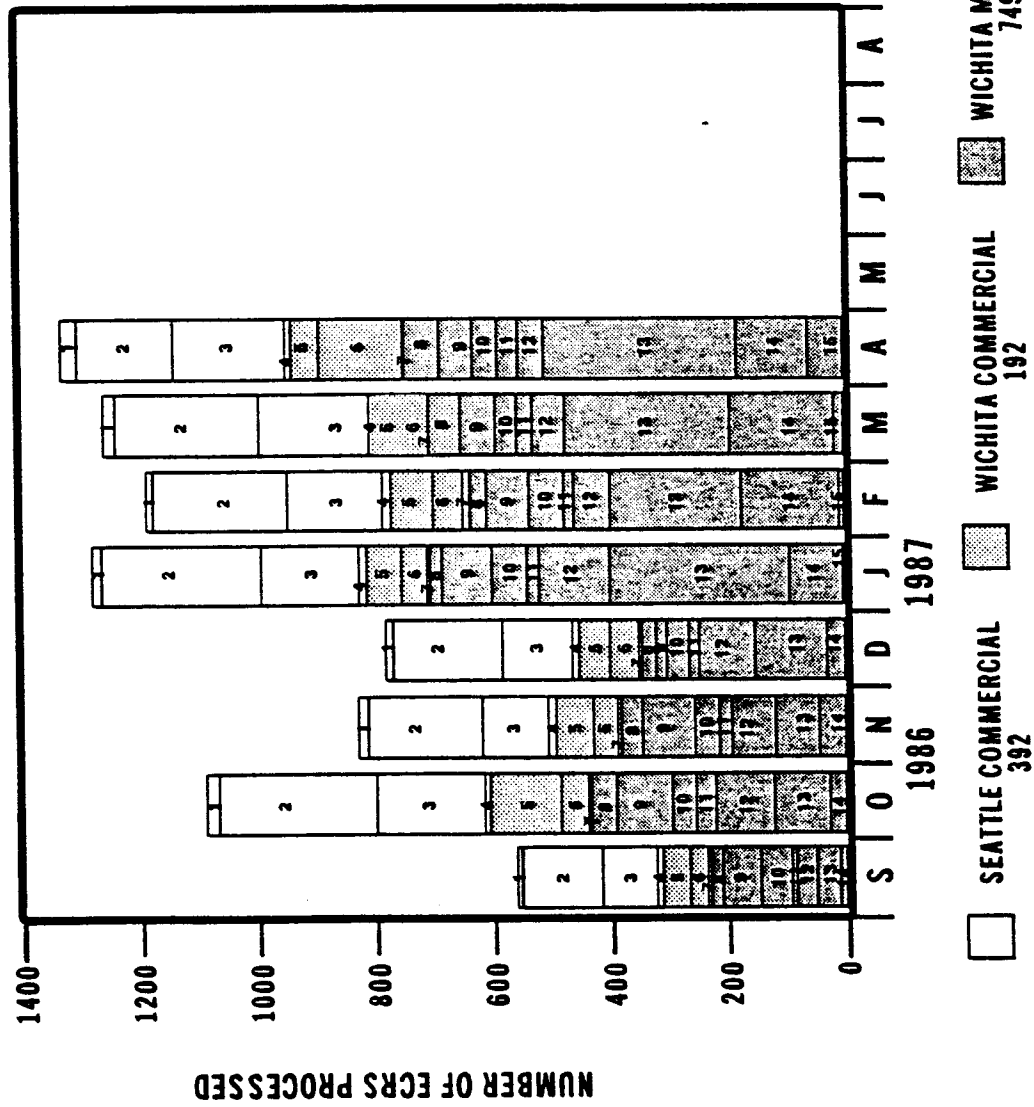
WITHOLD TAG HISTORY



KREVIEWIX.06

ECRS I,II,III

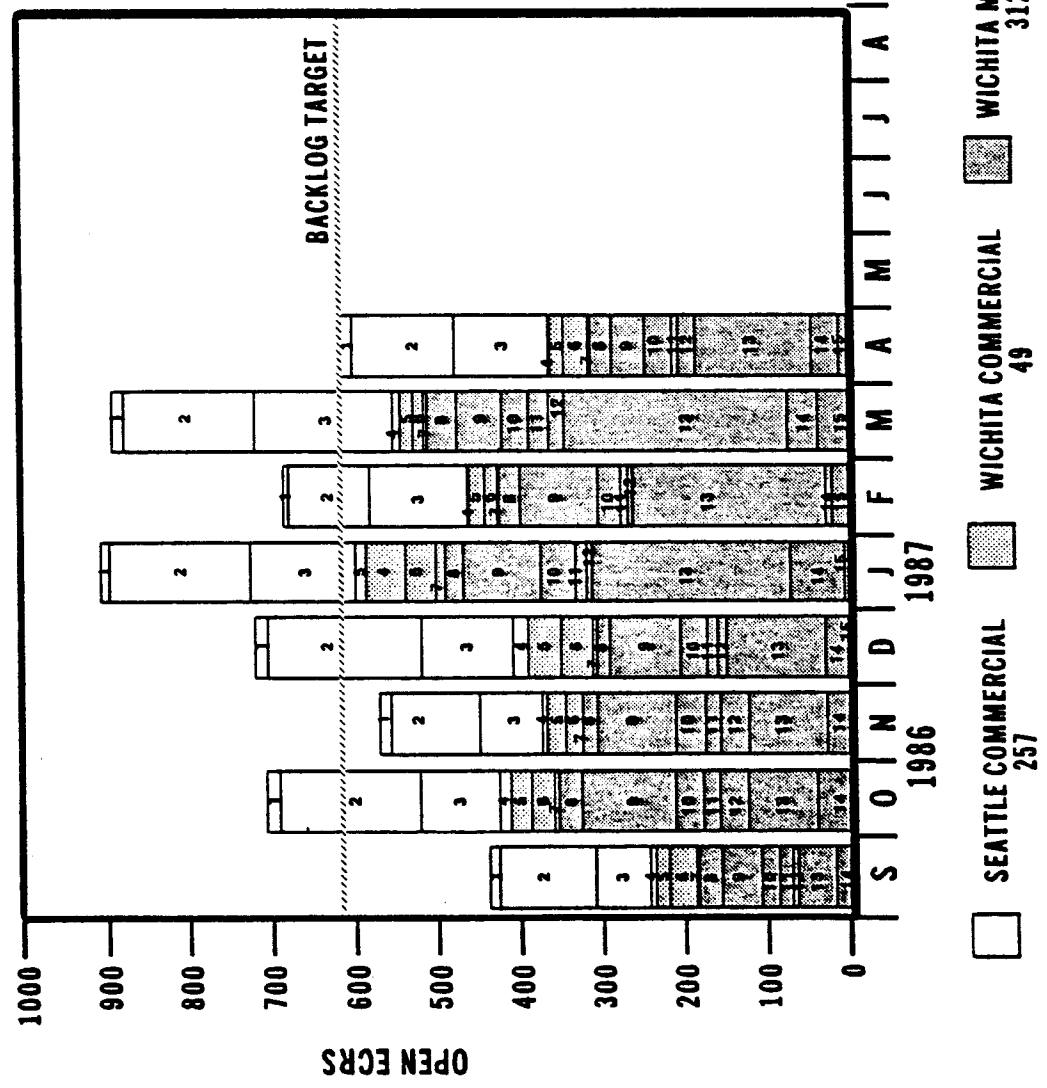
	CURRENT MONTH	LAST MONTH
1. 767	28	20
2. 747	164	245
3. 737	190	187
4. 707/727	10	10
<hr/>		
5. 757 SEC.41 NACELLE	27	35
6. 767 NACELLE	20	9
7. 737 NACELLE	143	44
8. B-52	2	4
<hr/>		
9. ELEC/ELEX B-1B	61	54
10. MOD LIA	40	46
11. KC-135	16	14
12. V-22	42	36
13. A-6	35	27
14. J-STAR	44	55
15. AF-1	330	283
	121	177
	60	16
	1333	1262



BOEING MILITARY AIRPLANE COMPANY

ECR BACKLOG ENGINEERING LIAISON

	CURRENT MONTH	LAST MONTH
1. 767	17	14
2. 747	24	160
3. 737	114	166
4. 707/727	2	9
<hr/>		
5. 757 SEC.41 NACELLE	13	12
6. 767 NACELLE	4	4
7. 737 NACELLE	29	13
	3	4
<hr/>		
8. B-52	27	37
9. ELEG/ELEX B-1B	34	34
	7	20
10. MOD LIA	33	33
11. KC-135	8	24
12. V-22	20	19
13. A-6	140	272
14. J-STAR	33	36
15. AF-1	10	36
	618	893



KREVIEWJK.12

DRAWING QUALITY

ERRORS PER DATA

MONTHLY DRAWING QUALITY ERROR PER DATA REPORT	ALWSI	ILS	A6	KC-135	SE	AF-1	JOINT	MTS	LIA	NAC	ECAD	COMM	ALL PROG TOTAL
				DESIGN	STARS								
JANUARY	1.0	*	0.8	1.2	0.3	0.5	0.8	*	0.1	0.2	1.6	0.3	0.6
FEBRUARY	1.0	*	1.1	1.1	1.4	0.6	0.7	*	0.2	0.1	1.3	0.3	0.6
MARCH	0.8	*	0.7	1.1	0.7	0.7	0.7	*	0.2	0.1	0.9	0.2	0.5
APRIL	0.9	*	0.8	0.6	0.5	0.7	0.6	*	0.1	0.1	1.1	0.3	0.6
MAY													
JUNE													
JULY													
AUGUST													
SEPTEMBER													
OCTOBER													
NOVEMBER													
DECEMBER													
CURRENT MONTH TOTAL DATA	632	*	461	55	2	399	489	*	790	147	34	251	8260
CURRENT MONTH BYPASSED DATA	53	*	0	0	0	0	2	*	0	0	0	25	80
CURRENT MONTH GRAND TOTAL	685	*	461	55	2	399	491	*	790	147	34	276	3240

*NO DATA SUBMITTED.

BOEING MILITARY AIRPLANE COMPANY

Aut. Parts List
Automated Parts List

APL/APR OPERATIONS

ERRORS PER DATA

1987 APL/APR OPERATIONS ERROR PER DATA REPORT	MILITARY													TOTAL ALL PROGRAMS
	PROJECT S1, F41	F-4 (R. HOSEMAN)	C7C-135 (G. BRIGGS)	ELEC CAD (P. BETER)	P/S. STANDARD (M. REAR)	LIASION (R. LAMPIN)	ACCEL (F. ROSS)	SMT EMT (J. BLANK)	J-STARS (N. RANSUOL)	A-6 B. THOMAS	M-1 (R. VANTRIC)			
JANUARY	.0	* .1	.0	* .2	.0	.1	.1	.1	.1	1.2	.4			.4
FEBRUARY	.0	1.4	.0	* .3	.0	.0	.0	.0	.0	1.0	.4			.2
MARCH	.0	.8	.2	* .3	* .1	.0	.2	.1	.6	.6	.6			.2
APRIL	.0	.1	.0	* .1	.0	.0	.0	.0	.8	.6	.6			.3
MAY														
JUNE														
JULY														
AUGUST														
SEPTEMBER														
OCTOBER														
NOVEMBER														
DECEMBER														
TOTAL DATA	41	39	10	*	†	80	1	8	160	303	229			1287
BYPASS DATA	0	0	0	†	†	0	0	0	0	0	0			0
GRAND TOTAL	41	39	10	†	†	80	1	8	160	303	229			1287

* NO DATA SUBMITTED

APL/APR OPERATIONS

ERRORS PER DATA

1987 APL/APR OPERATIONS ERROR PER DATA REPORT	MILITARY														CIVILIAN				TOTAL PROGRAMS	
	MS/CM (R. KLECKA)	EC-135 (R. KLECKA)	STAT RADAR (R. KLECKA)	DIG. SCAN CARV (R. KLECKA)	EC-135 S2 SFT (R. CARPENTER)	DEF. SYS. (L. BAMA)	A-22 (E. KEY)	ICMS/CM (R. KEY)	MPS (R. HANSEN)	B-10 (R. MILL)	CSPL (K. ZIEGLER)	CSPL1 (K. ZIEGLER)	A-22 (K. ZIEGLER)	ACSR (K. ZIEGLER)	ACM (K. ZIEGLER)	K. ZIEGLER (D. MATO)	LIASIM (D. MATO)	MADELE (E. KUSSE)		752 SGT. #2 (D. MILL)
JANUARY	.0	* .1	.0	.2	.2	*	.3	*	*	*	.0	.0	1.7	.0	.0	.0	.0	.0	.0	***
FEBRUARY	.0	* .1	.0	.3	.0	*	.0	*	.0	.0	.1	.1	.6	.0	.5	.1	.0	.0	.0	***
MARCH	.0	* .2	* .1	.6	* .0	*	.0	*	*	.1	.0	.3	.0	.1	.0	.0	.0	.0	.0	***
APRIL	.0	* .1	* .0	.0	* .0	*	.0	*	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	***
MAY																				
JUNE																				
JULY																				
AUGUST																				
SEPTEMBER																				
OCTOBER																				
NOVEMBER																				
DECEMBER																				
COMMENT #	TOTAL DATA	6	*	24	*	11	11	*	28	*	2	12	8	11	5	1	188	49	60	***
	BYPASS DATA	0		0		0	0		0		0	0	0	0	0	0	0	0	0	***
	GRAND TOTAL	6	*	24	*	11	11	*	28	*	2	12	8	11	5	1	188	49	60	***

* NO DATA SUBMITTED
 *** SEE PAGE 2 FOR PROGRAM TOTALS

ECR AND W/T COMPLETION STATUS

APRIL 1987

ECRS

PRI	QTY CLOSED	ALLOWED FLOW			AVG. ACTUAL FLOW			% ON TIME/ACTUALS			AVG. DAYS DELINQ.		
		LIA	BMAC DESIGN	SEATTLE LDAR	LIA	BMAC DESIGN	SEATTLE LDAR	LIA	BMAC DESIGN	SEATTLE LDAR	LIA	BMAC DESIGN	SEATTLE LDAR
I	714	3	8	13	8.8	24.5	25.0	51.5/ 336	46.5/ 20	36.8/ 7	7.0	30.7	10.5
II	408	11	16	21	18.0	16.2	29.3	42.4/ 154	76.5/ 26	63.6/ 7	16.6	26.1	36.6
III	163	22	25	30	19.4	33.8	39.4	62.7/ 89	75.0/ 12	60.0/ 3	12.9	57.3	12.9

W/TS

PRI	QTY CLOSED	ALLOWED FLOW			AVG. ACTUAL FLOW			% ON TIME			AVG. DAYS DELINQ.		
		LIA	BMAC DESIGN	SEATTLE LDAR	LIA	BMAC DESIGN	SEATTLE LDAR	LIA	BMAC DESIGN	SEATTLE LDAR	LIA	BMAC DESIGN	SEATTLE LDAR
II	374	10	15	20	15.7	32.6	21.3	34.4	32.9	39.4	11.3	21.9	9.5

ENGINEERING CHANGE REQUEST (ECR)

FORM E-3975 ESTABLISHED AND ADMINISTERED BY OPERATING PROCEDURE 55

USES

A. REQUEST ERROR CORRECTION ON ENGINEERING DRAWINGS.

1. TO BE USED IN THE PRE-HARDWARE STAGE.
2. TO CORRECT MINOR DRAWING DISCREPANCIES AFTER HARDWARE FABRICATION PROVIDED THE HARDWARE IS NOT PHYSICALLY AFFECTED.

B. REQUEST PRODUCTION FACILITY CHANGES TO EXISTING ENGINEERING.

C. PRIORITY LEVELS

1. ESTABLISHED BY ORIGINATOR (AUTOMATICALLY A PRIORITY III IF NOT ASSIGNED).
2. PRIORITY I REQUIRES THIRD LEVEL MANAGER SIGNATURE PLUS PRIORITY JUSTIFICATION STATEMENT.

Engineering Liaison

SUMMARY:

- THE PRIMARY DUTY IS SUPPORT OF MANUFACTURING IN THE RESOLUTION OF PROBLEMS PERTAINING TO ENGINEERING DATA AND HARDWARE DISCREPANCIES