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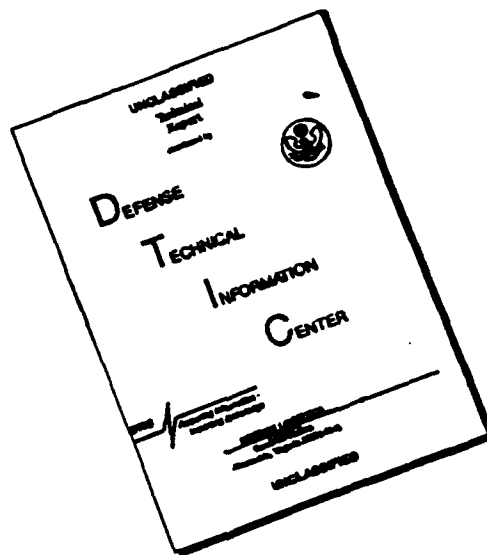
## DOCUMENTATION PAGE

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**TECHNOLOGY INSERTION-ENGINEERING SERVICES  
PROCESS CHARACTERIZATION  
TASK ORDER NO. 1  
(BLOCK 1)**

**DATABASE DOCUMENTATION BOOK**

**WR-ALC**

**MANPSA**

**CONTRACT SUMMARY REPORT  
14 AUGUST 1989**

**CONTRACT NO. F33600-88-D-0567  
CDRL SEQUENCE NO. B008**

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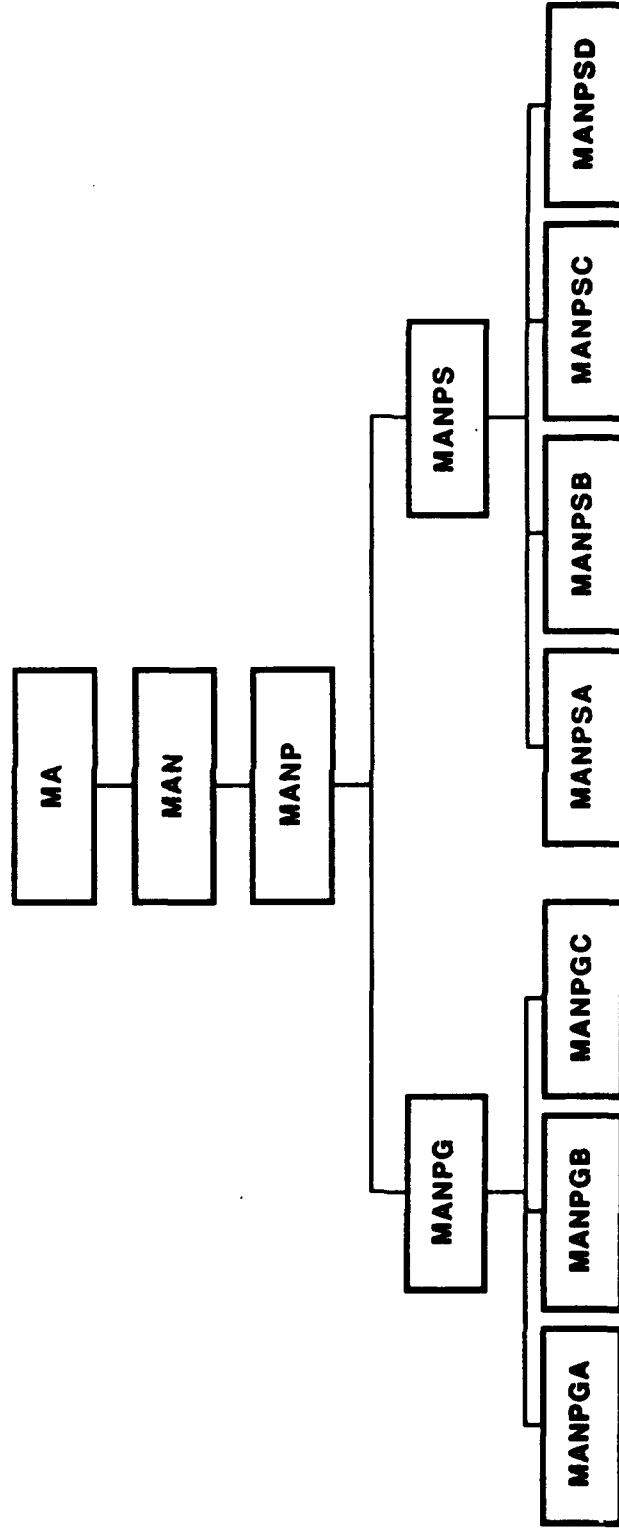
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**LEGEND:**

MA = DIR. OF MAINT.  
 MAN = INDUSTRIAL PRODUCTS DIVISION  
 MANPG = PRODUCTION BRANCH  
 MANPS = GYRO SECTION  
 MANPSA = GYRO REPAIR UNIT NO. 1  
 MANPSB = GYRO REPAIR UNIT NO. 2  
 MANPSD = GYRO REPAIR UNIT NO. 3

MANPS = SHEET METAL SECTION  
 MANPSA = ADHESIVE BONDING UNIT  
 MANPSB = SHEET METAL MANUFACTURING UNIT  
 MANPSC = SHEET METAL REPAIR UNIT  
 MANPSD = PLASTIC & MISC. SHEET METAL UNIT

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**WR-ALC RCC PROCESS CHARACTERIZATION COVERAGE**

**FIGURE 9.0-1**



## **WR-ALC (MANPSA)**

### **1.0 Identification of RCC**

Resource Control Center (RCC) MANPSA has been identified by the Statement of Work (SOW) of Contract F33600-88-D-0567, Technology Insertion Engineering Services, Cure Notice Response for Task Order No. 1, for Process Characterization.

*Resource control system*

## **2.0 General Information**

↳ MANPSA is an RCC with MANPS section of the Industrial Products Division (MAN) at WR-ALC. MANPSA is located in Building 169.

The primary workload in MANPSA consists of PDM, C-141 Ailerons and MISTR work consisting of other adhesive bonding work, namely, C-141 Petal Doors, Access Doors, Ailerons, Leading Edge, Horizontal Stabilizer, and the F-15 Speed Brake.

MANPSA will be discussed in more detail in the following Section 2.1 through 2.8.

### **2.1 Facility Layout Drawing**

The facility layout drawings of Building 169 represent the existing As-Is condition.

The drawings entitled Master Shop Layout File Building 169 were updated as of April 1989 and are of good quality.

### **2.2 Equipment**

MANPSA is comprised mainly of conventional sheet metal and certain specialized composite material fabrication equipment. MANPSA has large assembly and check fixtures, rivet installation holding fixtures, fixed tables and dollies, overhead lifting cranes, transport dollies, drying ovens, autoclaves, necessary equipment for autoclave support, and other ordinary support equipment.

MANPSA also has the normal sheet metal equipment to support the PDM/MISTR workload such as hand brakes, hand formers, drill press, band saw, hole punch, bench grinder, as well as all the rivet driving and upsetting tools necessary to support the numerous type of fasteners used in repair/overhaul work.

The majority of the equipment within MANPSA varies in age between ten and twenty years old, with some forty years old or older. The majority of the equipment is in good working and usable condition.

New, replacement pieces of equipment are being planned for purchase within the next ten years.

A listing of all equipment for MANPSA can be found in the Equipment Profile List of Section 5.0.

### **2.3 Workforce**

MANPSA has a less than adequate workforce. Other RCC areas such as the F-15 Wing Repair has priority over the MANPSA work and has drawn people from the MANPSA effort. The remaining workforce is well trained and well supervised. Personal interviews and the interviewees attendance at several "Quality Circle" and "QP 4" meetings has indicated a sense of professionalism and pride among the workforce.

The workforce is comprised mainly of Aircraft Sheet metal Mechanics of three basic classifications; namely, metal bond, autoclave, and the general sheet metal type, two foreman classifications, one leader-in-training, a secretary, a tool and parts attendant, and worker trainee.

The following constitutes a listing of the available manpower within MANPSA.

| <u>Skill Code</u> | <u>Skill Level</u> | <u>Quantity</u> | <u>Experience</u>  |
|-------------------|--------------------|-----------------|--------------------|
| 11582             | WS-14              | 2               | 20 Foreman 14      |
| 47881             | WS-10              | 2               | 15 Foreman 10      |
| 47891             | WS-10              | 37              | Metal Bond         |
| 50374             | WS-10              | 2               | Autoclave          |
| 9A014             | WS-10              | 2               | Mechanic A/C       |
| 49533             | WS-08              | 1               | Sheet metal worker |
| 49534             | WS-08              | 4               | Sheet metal worker |
| 50888             | WS-05              | 4               | Mechanic helper    |
| 3070A             | GS-04              | 3               | Secretary          |

## **2.4 Repair Process Technologies**

The repair process technologies within MANPSA consists of major unit manufacturing and small sheet metal conventional, honeycomb bonded and composite repairs on HIGH-VALUE C-141 and F-15 major aircraft assemblies. These assemblies are critical to flight safety and the performance of the aircraft in their assigned mission.

All of the aircraft assemblies to be inspected and repaired are received in Building 169 and are disassembled as required per the applicable Technical Order for inspection/repair/modification. They are reworked to incorporate all the aircraft modifications and Technical Order changes to meet the required configuration for the aircraft.

The sheet metal and composite components are repaired to a serviceable condition, otherwise are replaced with new parts. The repairs may consist of removing local corrosion, replacing damaged sections and those sections with major corrosion, replacing angles, brackets, rivets, fabricating special repair plates, etc. to repair damaged members of the minor or major structural component of the unit.

## **2.5 Workload Volume and Mix**

The workload within MANPSA consists mostly Management of Item Subject to Repair (MISTR) items with a small amount of Programmed Depot Maintenance (PDM) work.

The C-141 Aileron is a PDM workload at the present time, but will revert to a MISTR item in the future. The C-141 Petal Door, Leading Edge, Horizontal Stabilizer, Access Door and the F-15 Speed Brake are MISTR workload.

## **2.6 Material Handling**

Material handling in MANPSA involves the use of overhead cranes, slings, manpower, holding and transport dollies and work carts.

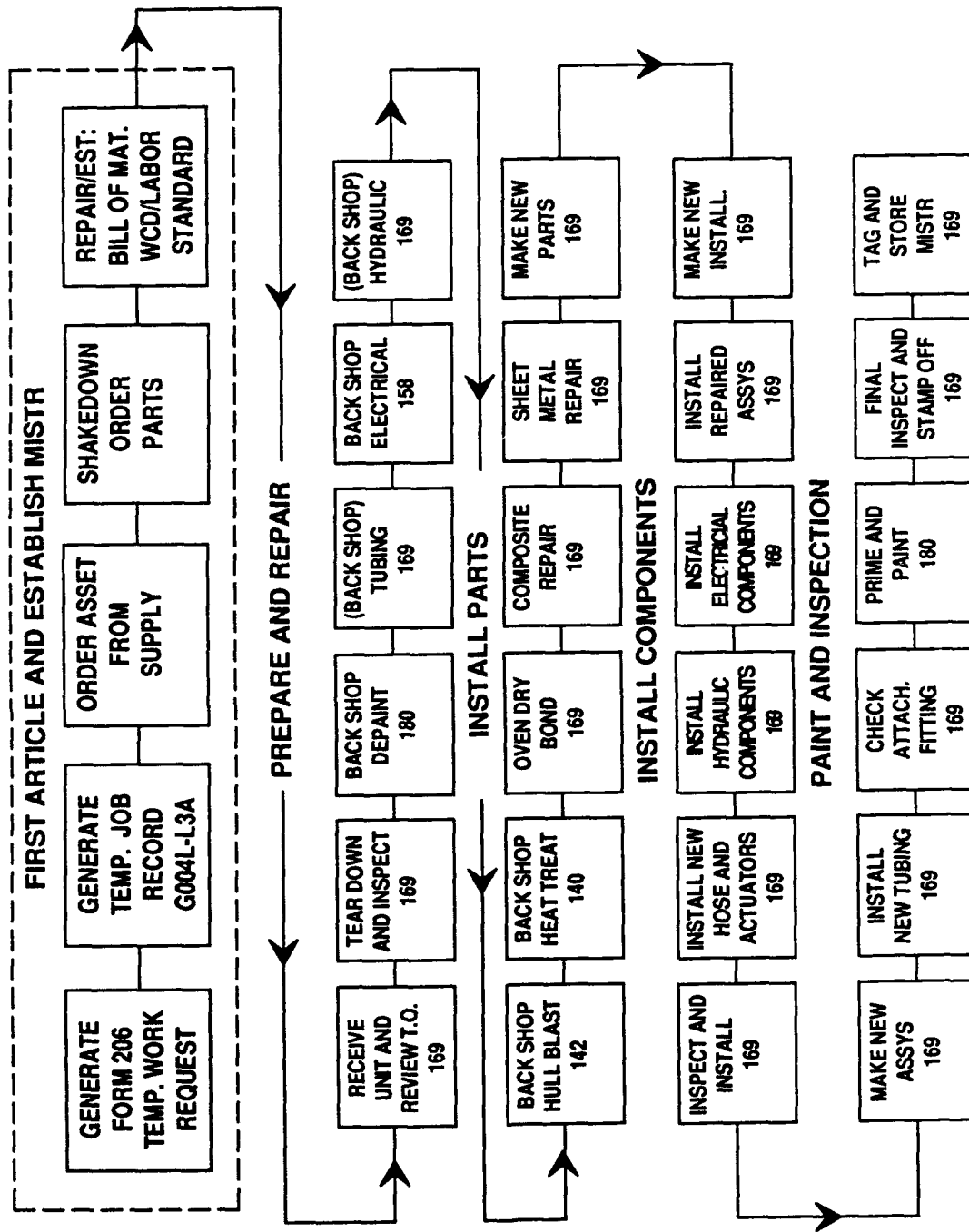
All the large and heavy items such as the C-141 Petal Doors and the Ailerons, etc. are loaded into and out of the check and assembly jigs and fixtures by the use of cranes and slings. Some of the assemblies over by "manpower" requiring several workers to accomplish the task. Some of the assemblies are moved and/or flip-

flopped or taken in and out of the jig or fixture as much as six or seven times before completion.

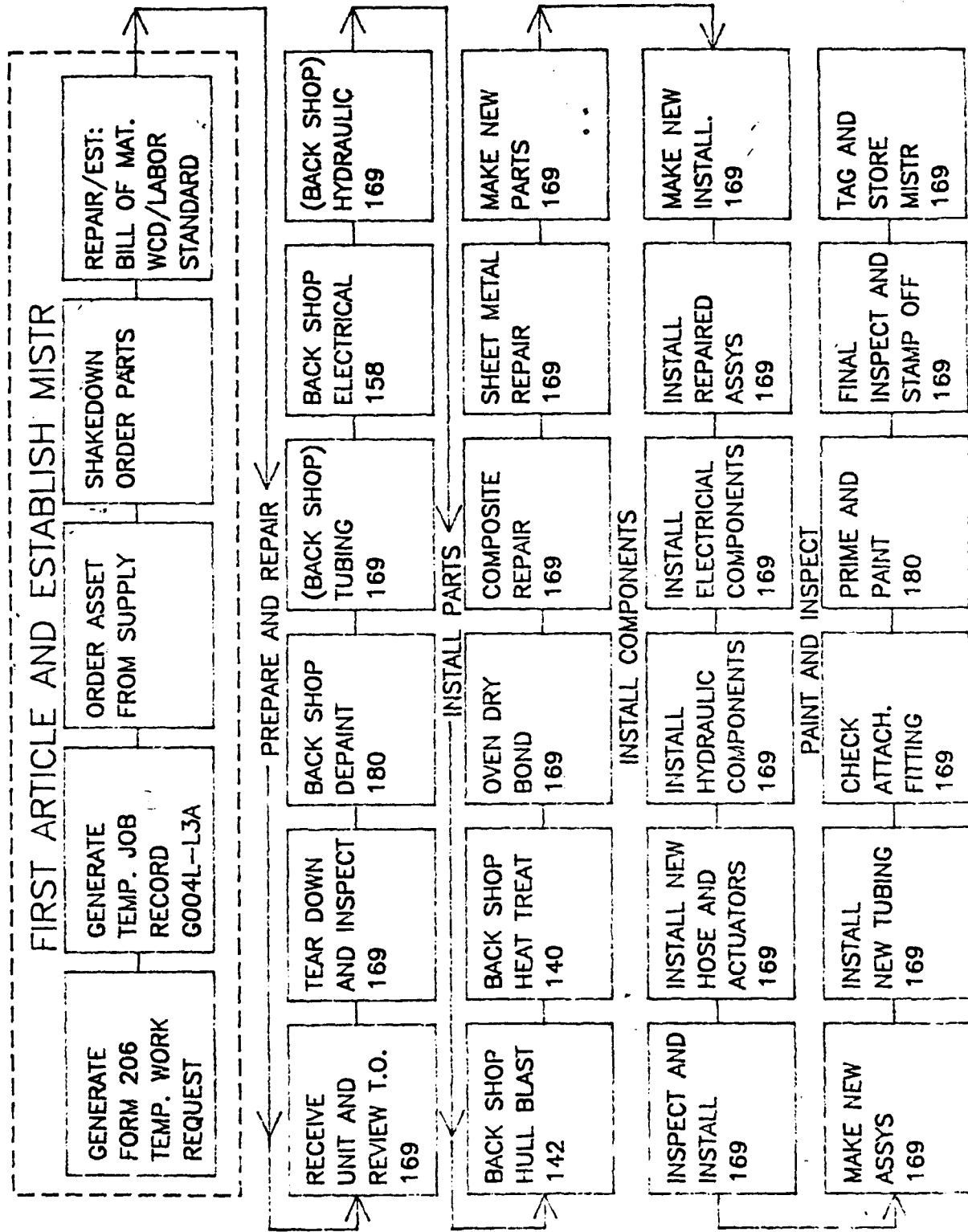
All work is moved, as required, by the mechanic workforce. Some moves are made by the overhead crane and sling, but the majority of material handling is by manhandling or by work dollies with wheels.

## **2.7 Storage**

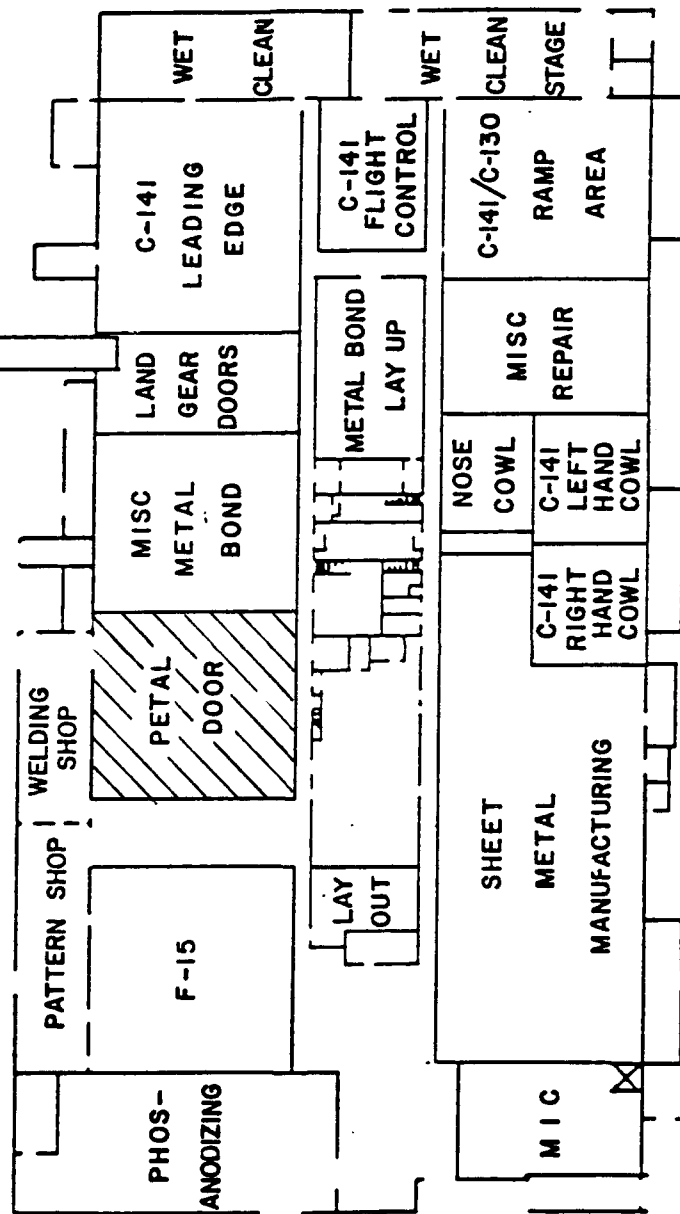
The only dedicated storage in the MANPSA area is several parts handling and storage bins in the Aileron and Petal Door areas. Large assemblies such as the Petal Door Skins are stored within the work area, making it difficult to work. The large items not being used should be returned to outside storage and not in Building 169. The skins and other large, bulky items are normally stored in wooden crates outside the MANPSA area.



WR-ALC MANPSA PROCESS FLOW CHART  
FIGURE



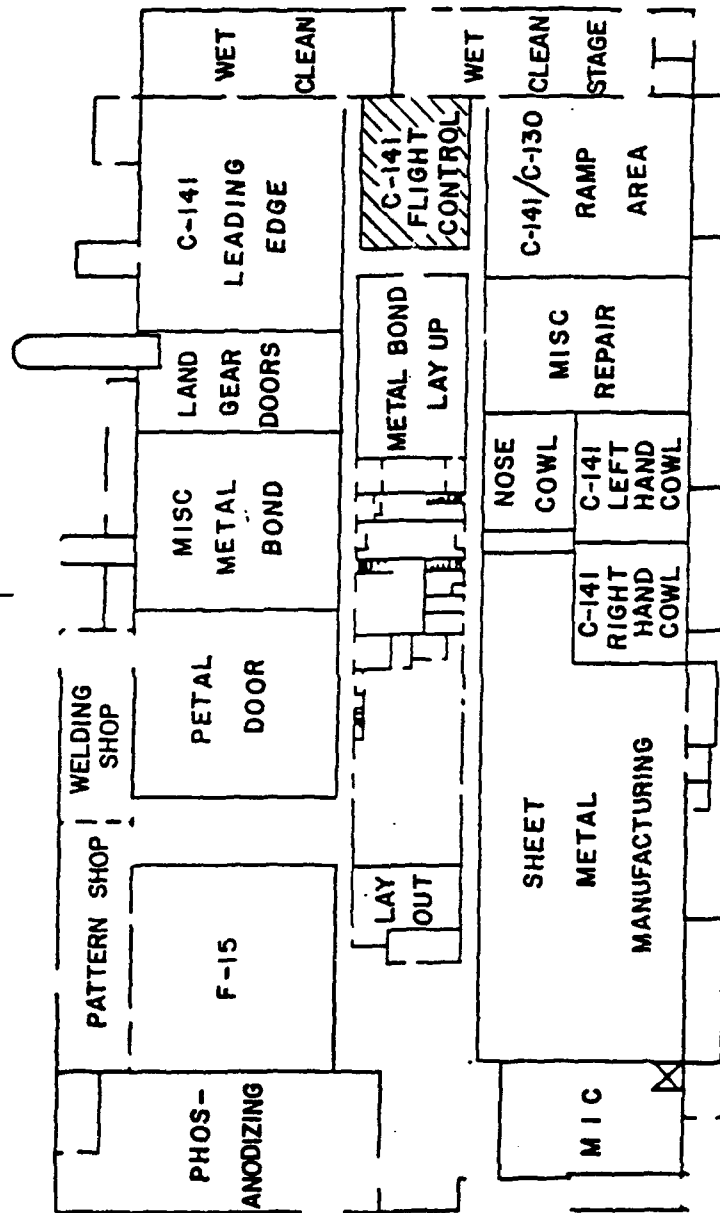
N



BLDG 169

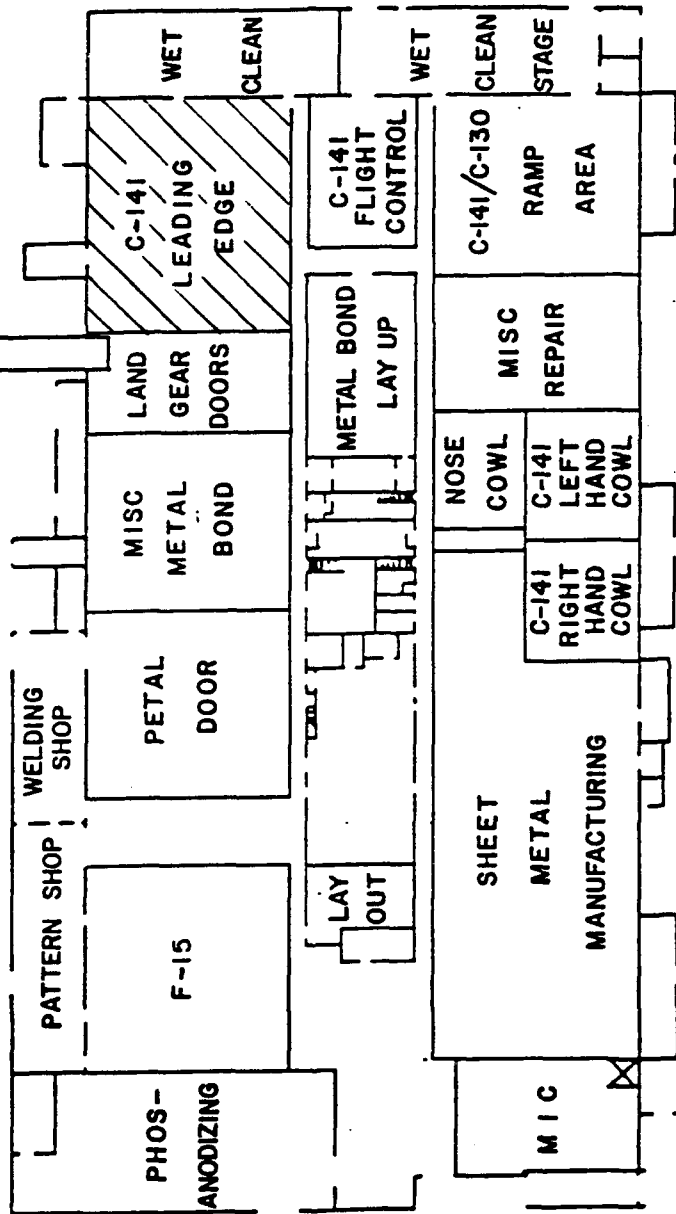


N



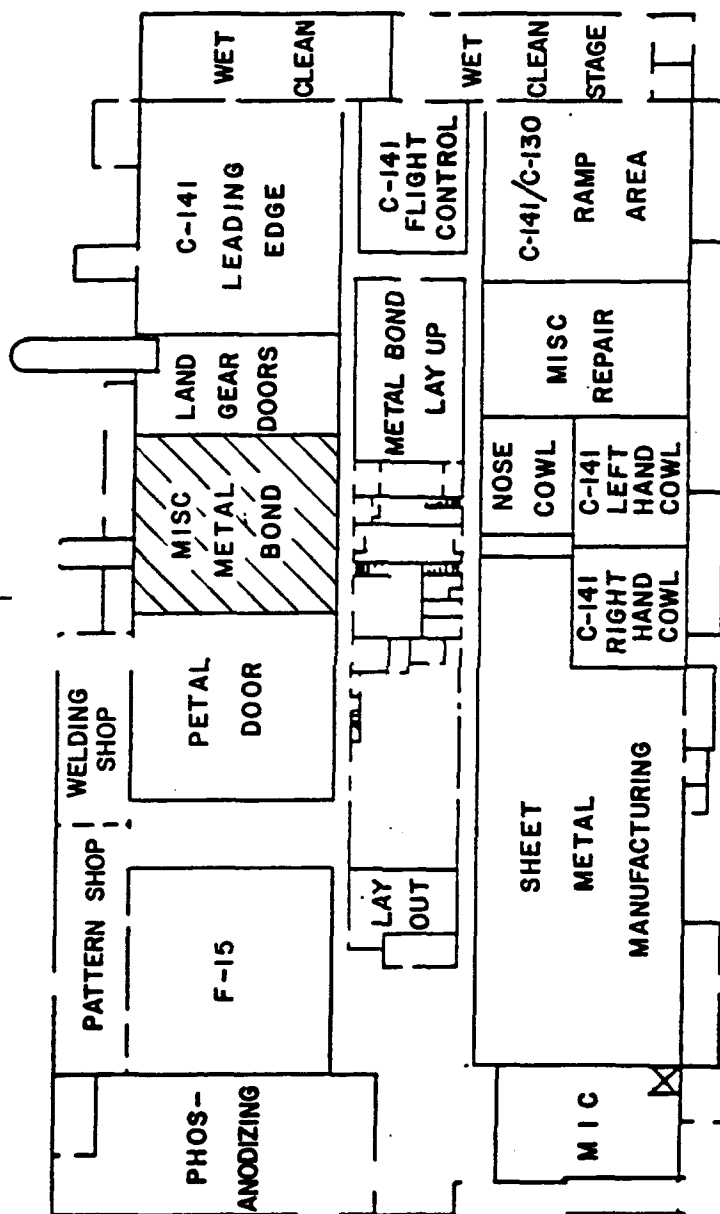
Bldg 169

N



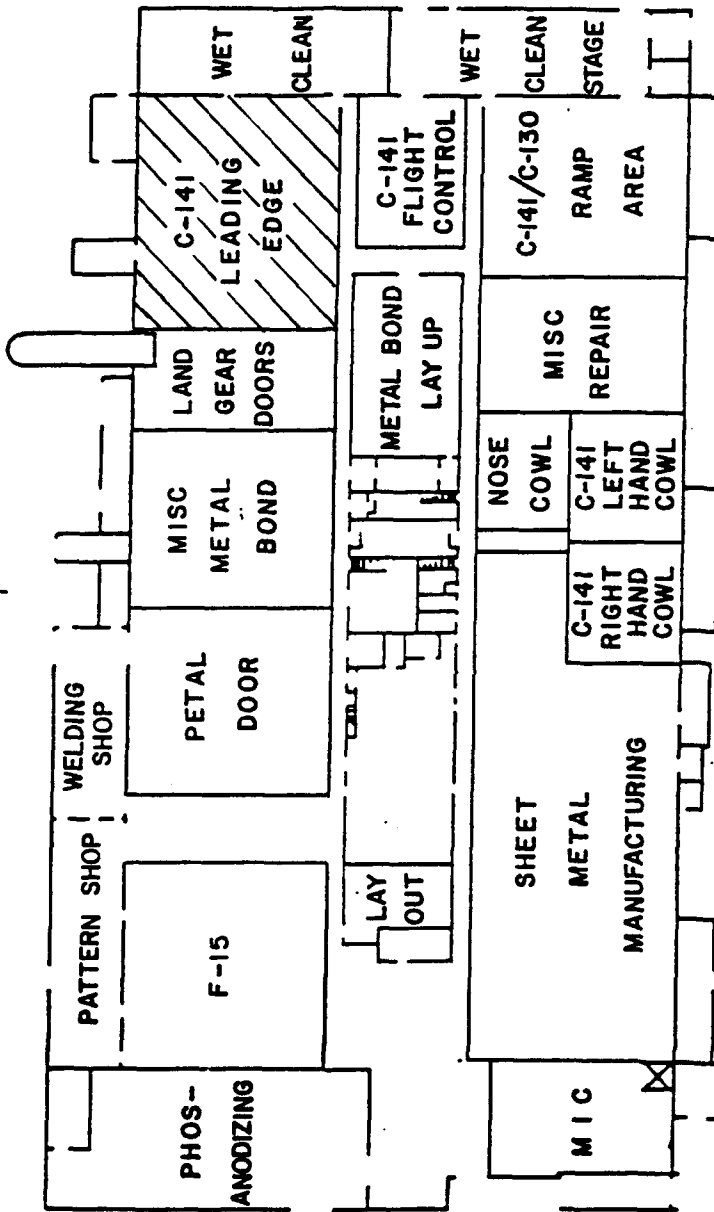
BLDG 169

N

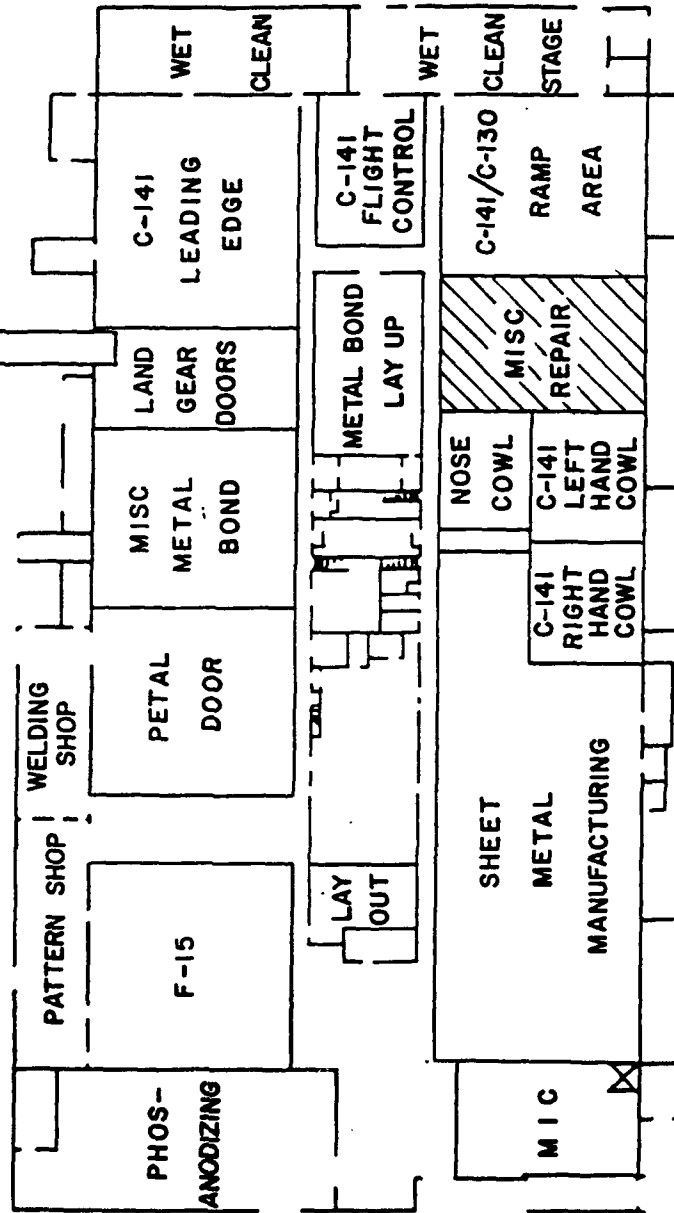


BLDG 169

N



BLDG 169



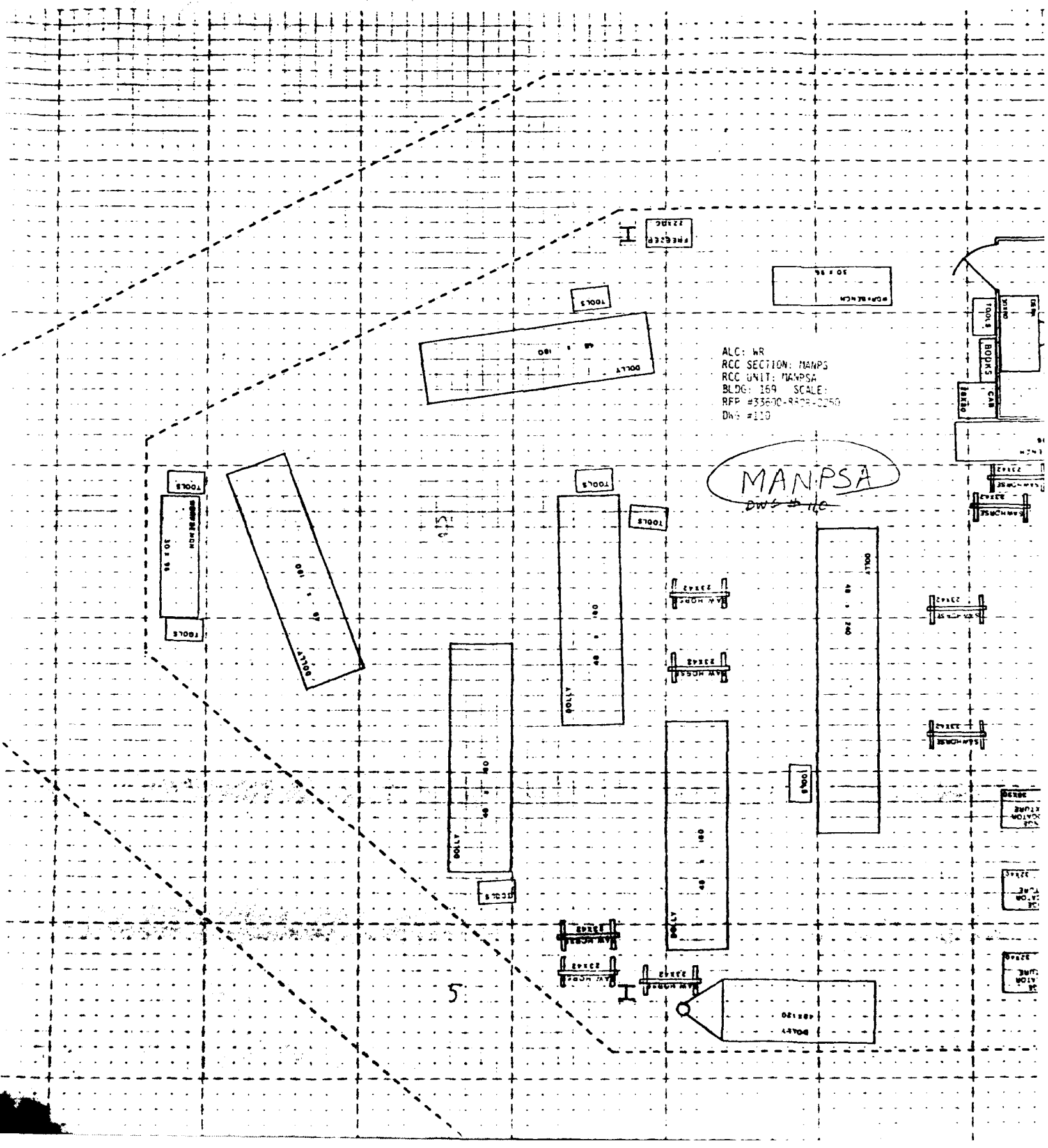
BLDG 169



ALC: WR  
RCC SECTION: MANPS  
RCC UNIT: MANPSA  
BLOG: 169 SCALE:  
RFP #33600-9429-0250  
DWG #110

MANPSA

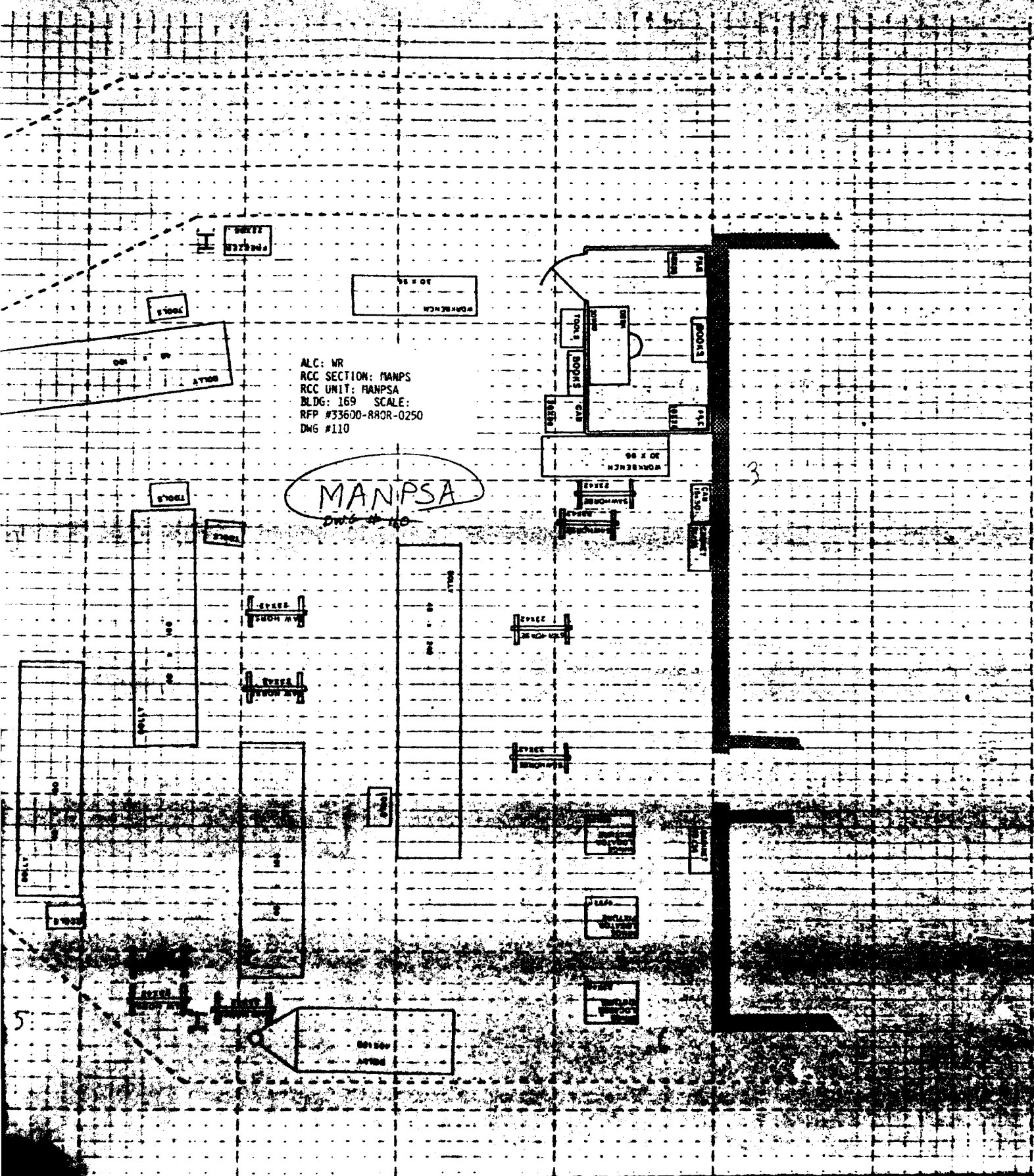
DWG #110



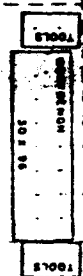
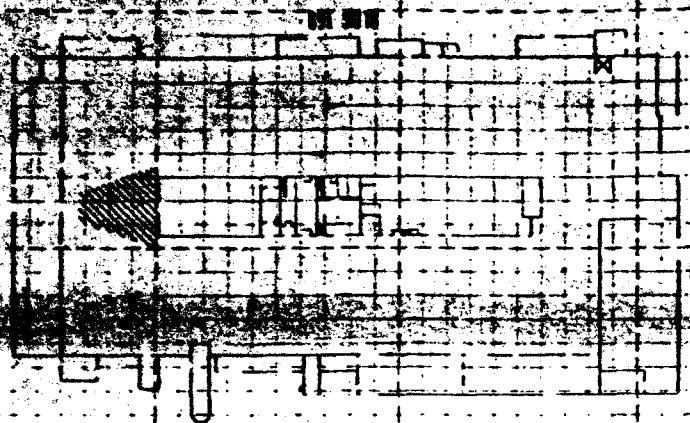
ALC: WR  
RCC SECTION: MANPS  
RCC UNIT: MANPSA  
BLDG: 169 SCALE:  
RFP #33600-880R-0250  
DWG #110

MANPSA

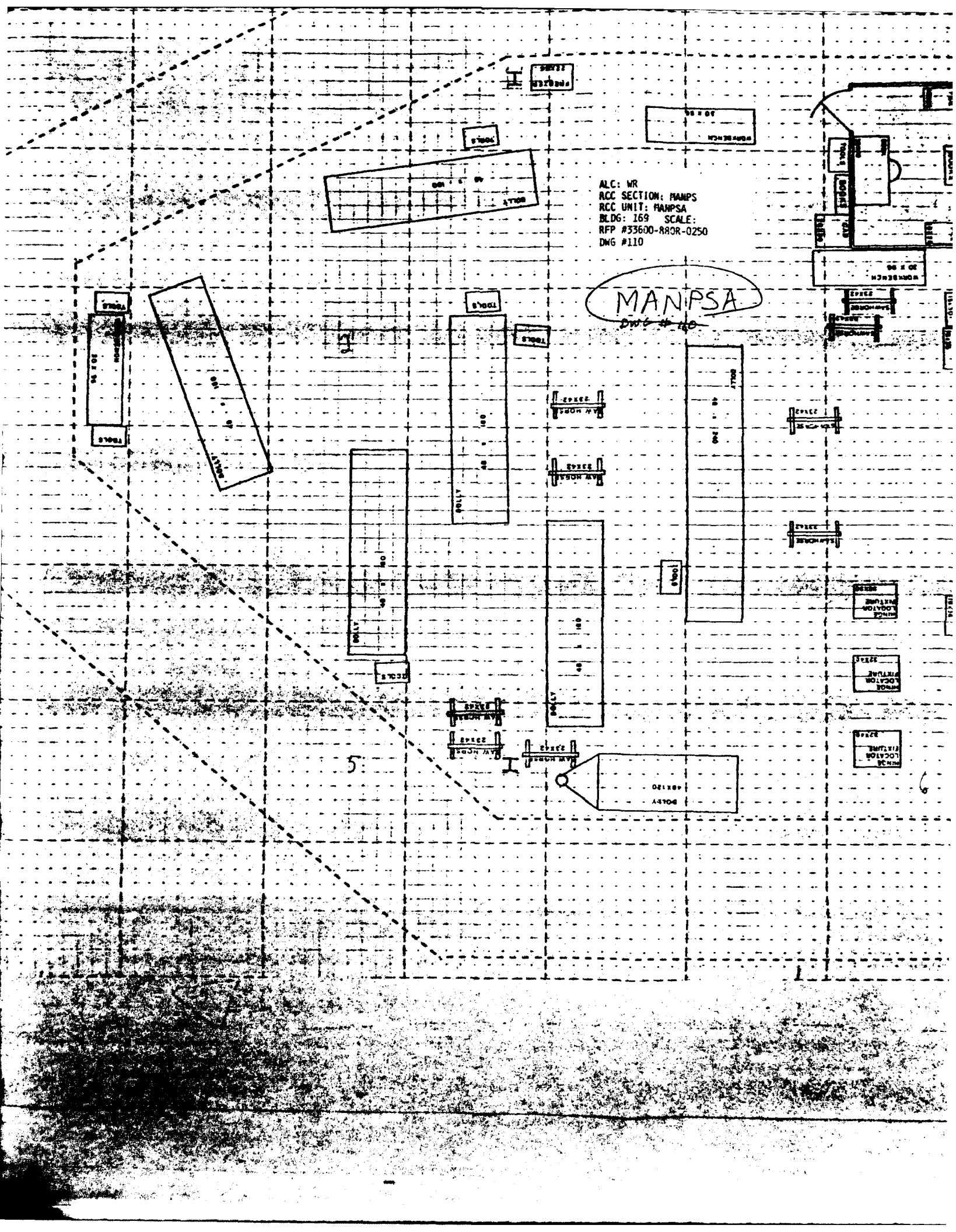
DWG # 110





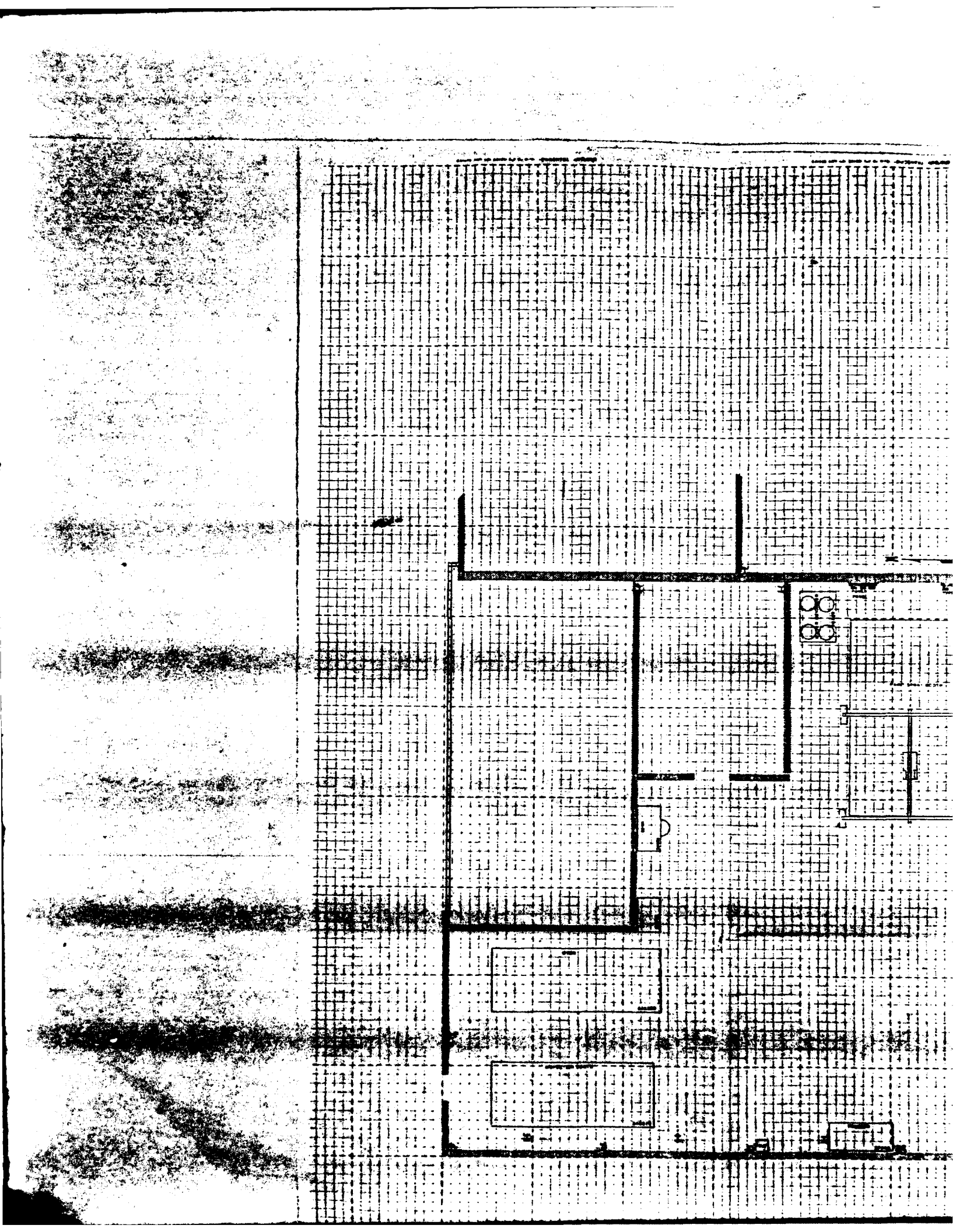
[illegible]

MANIPSA  
DWC # 110

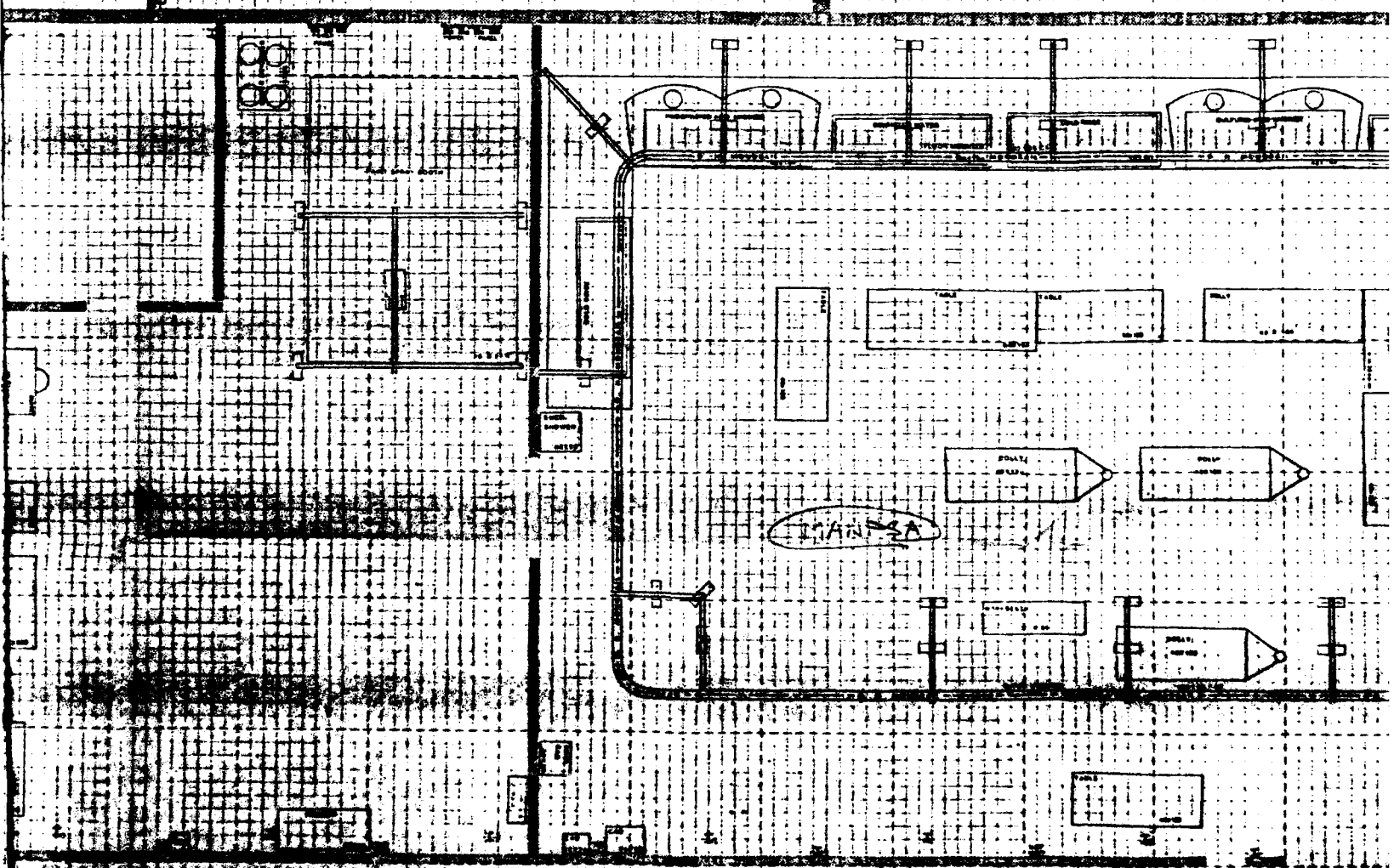


MANIPSA

~~CONFIDENTIAL~~

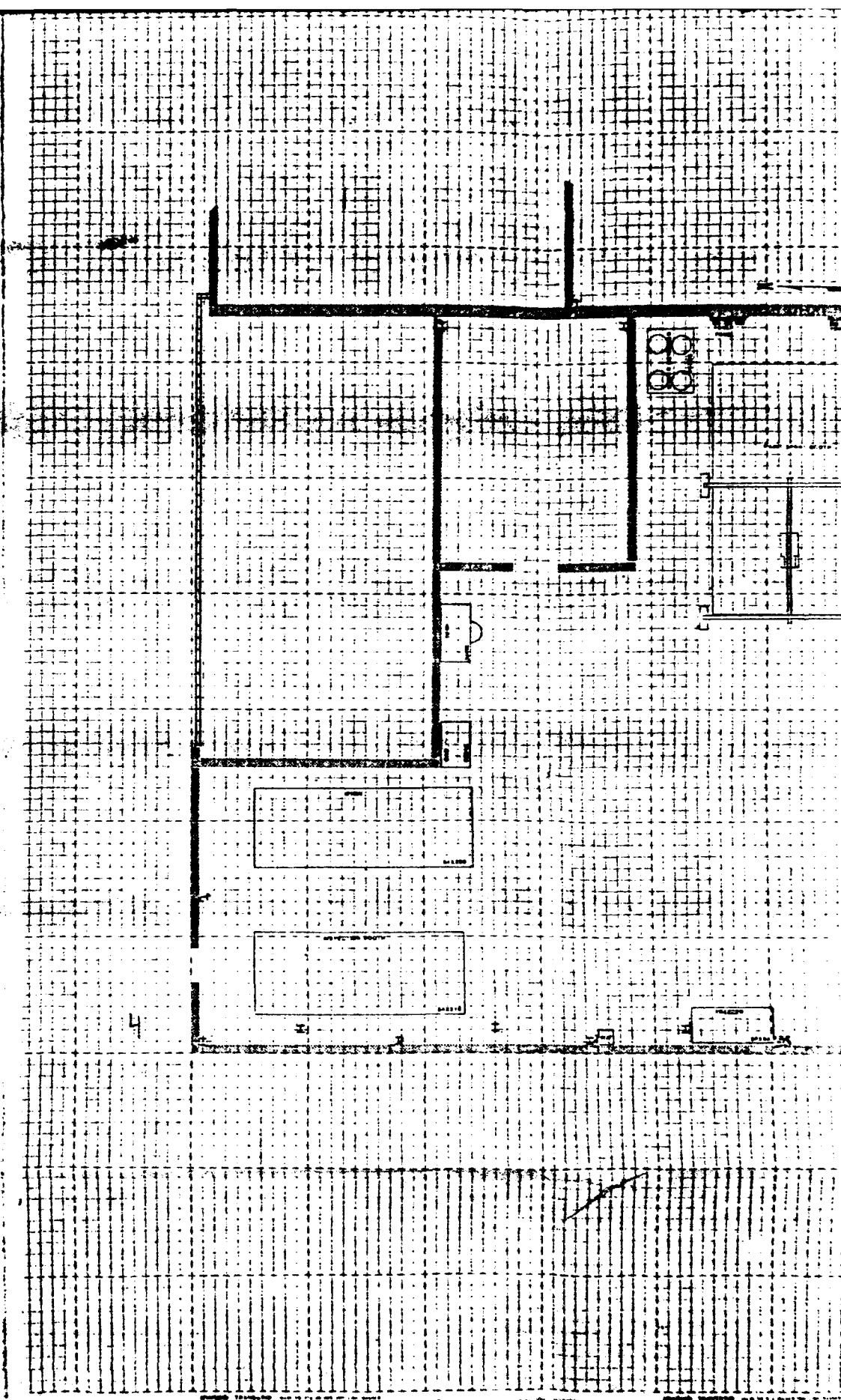


2

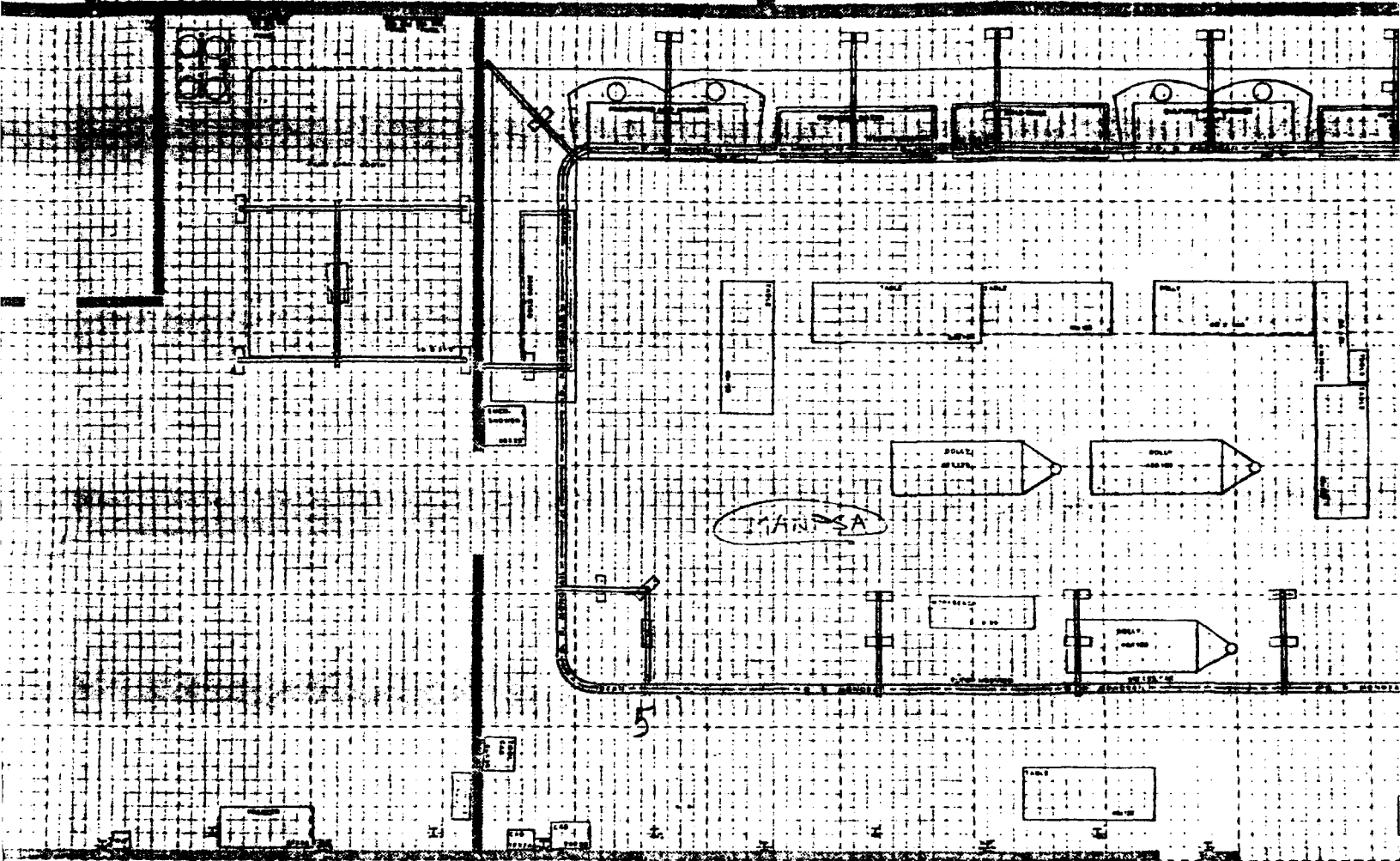




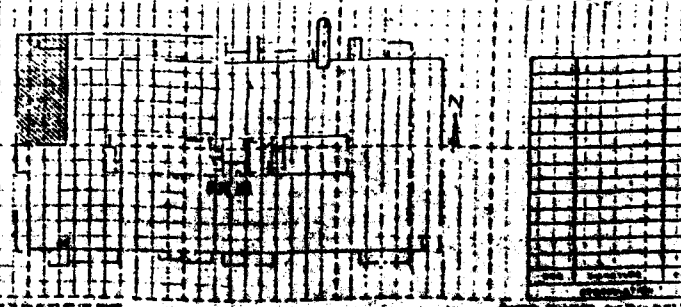




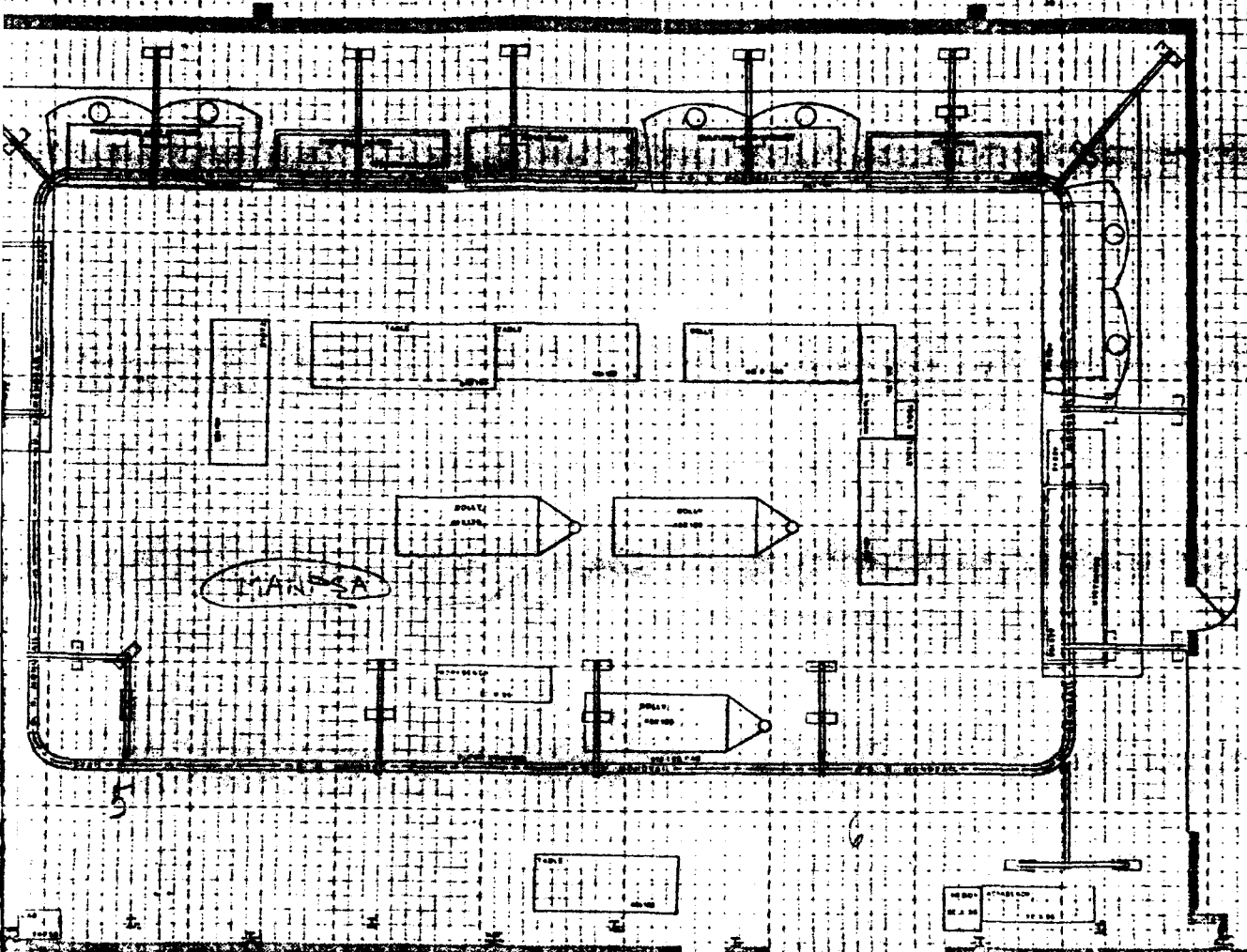
2



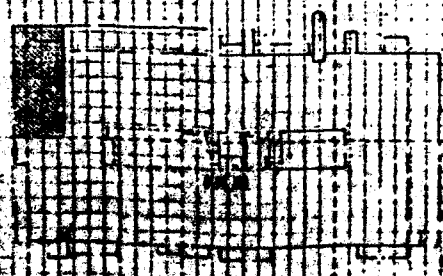
5



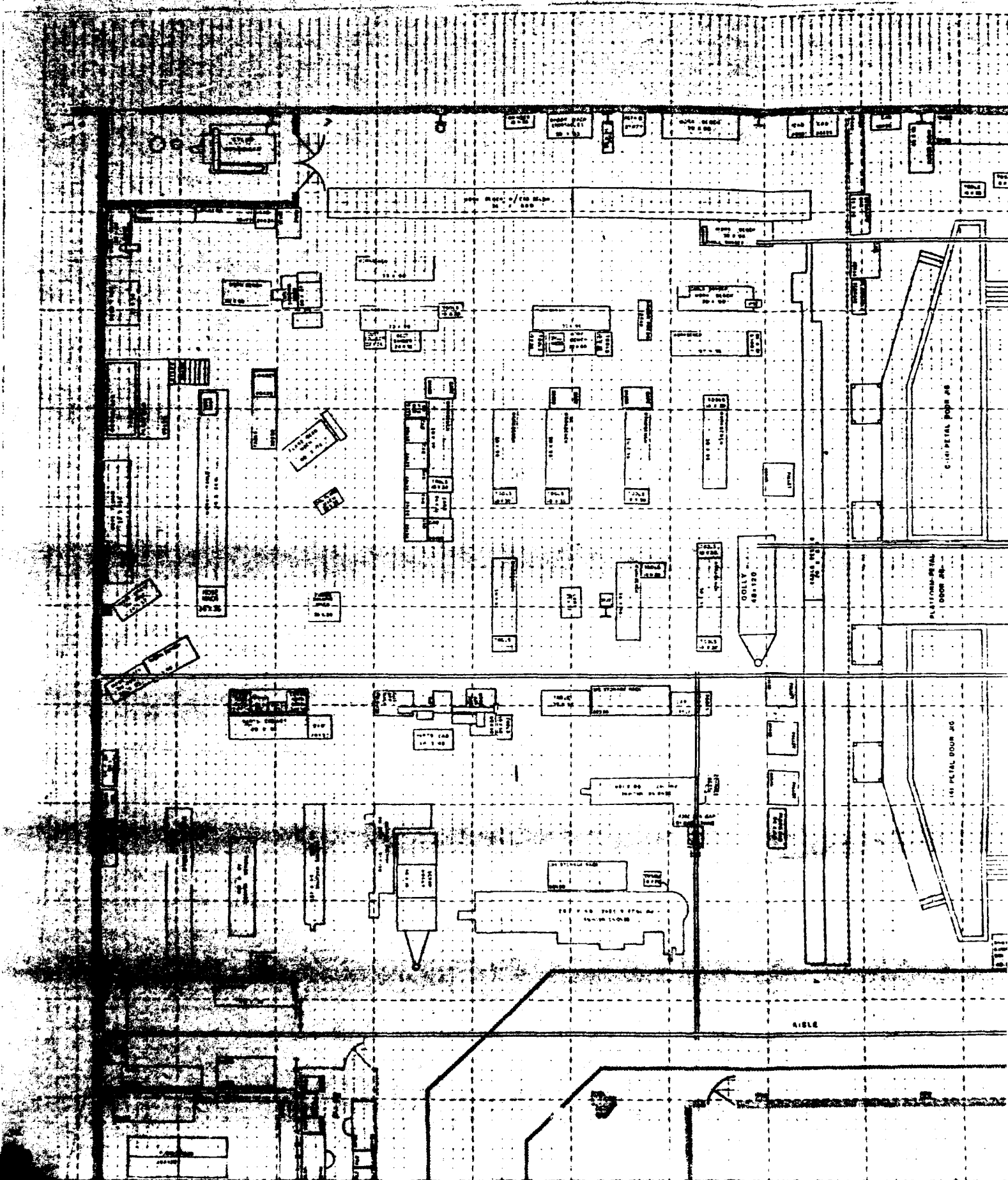


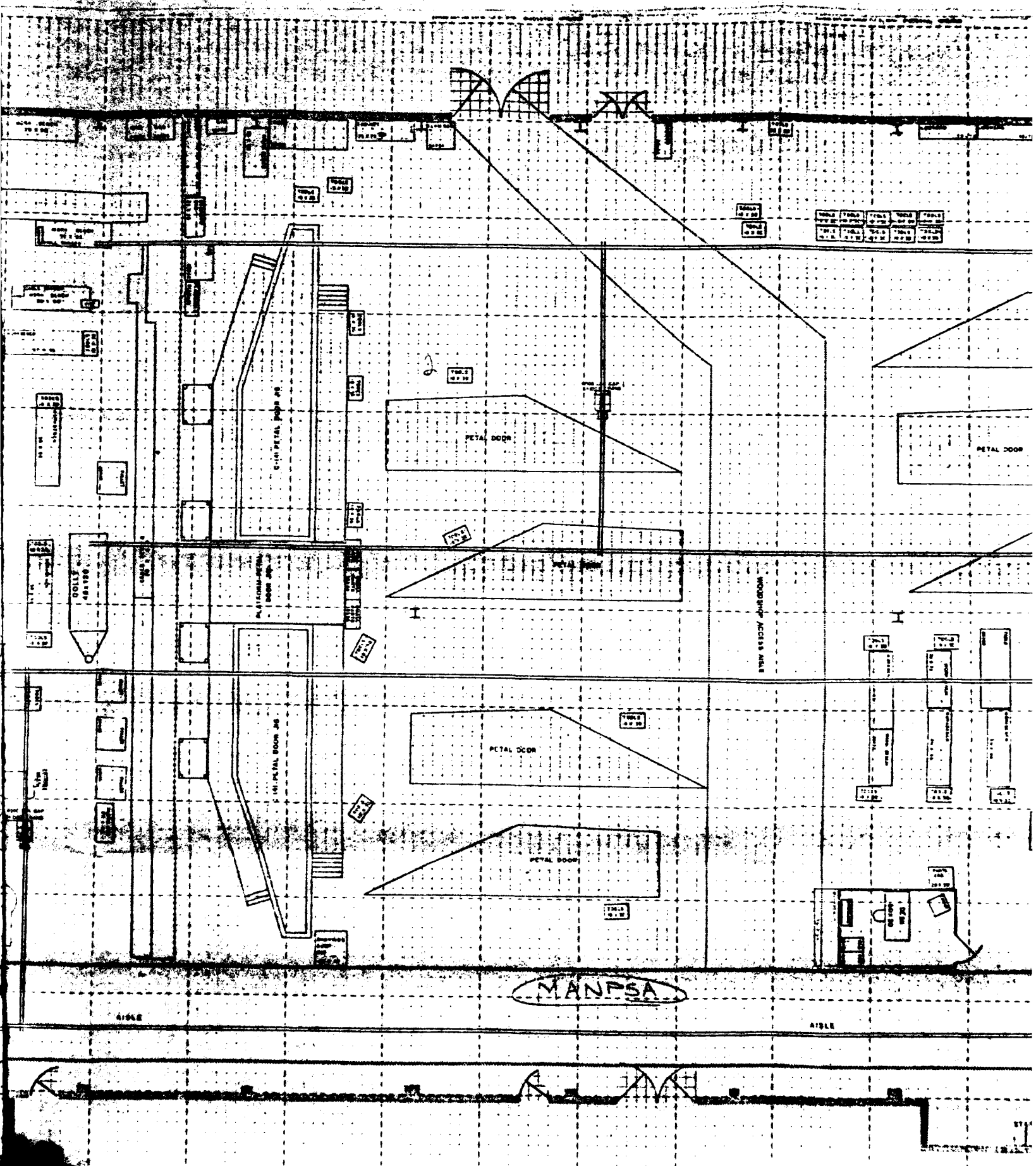


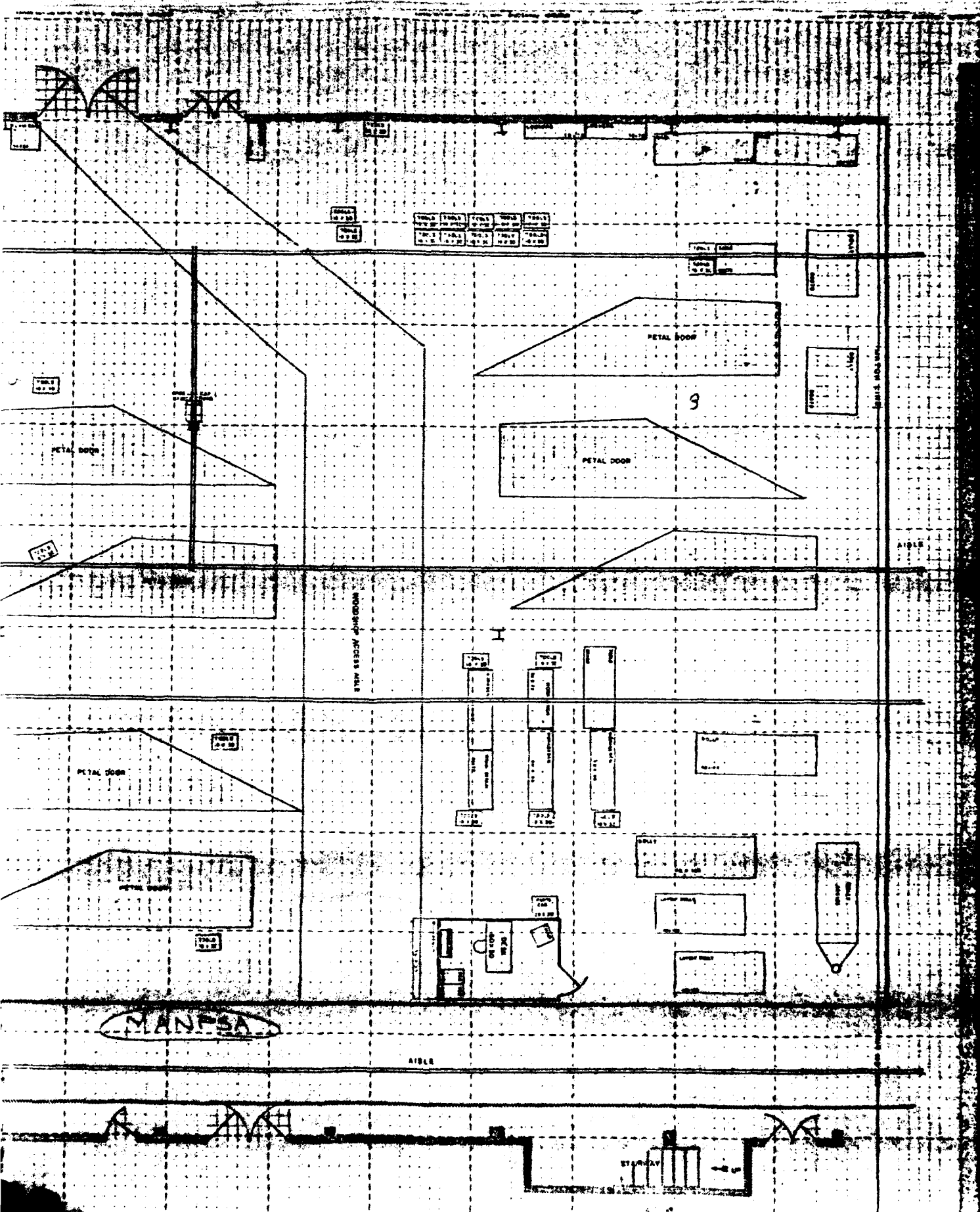
ALL IN  
SECTION: TRANS  
PER: TRANS  
A. 10.00 SCALE:  
200' 1:1000 1/4"=100'  
200' 1:1000 1/4"=100'



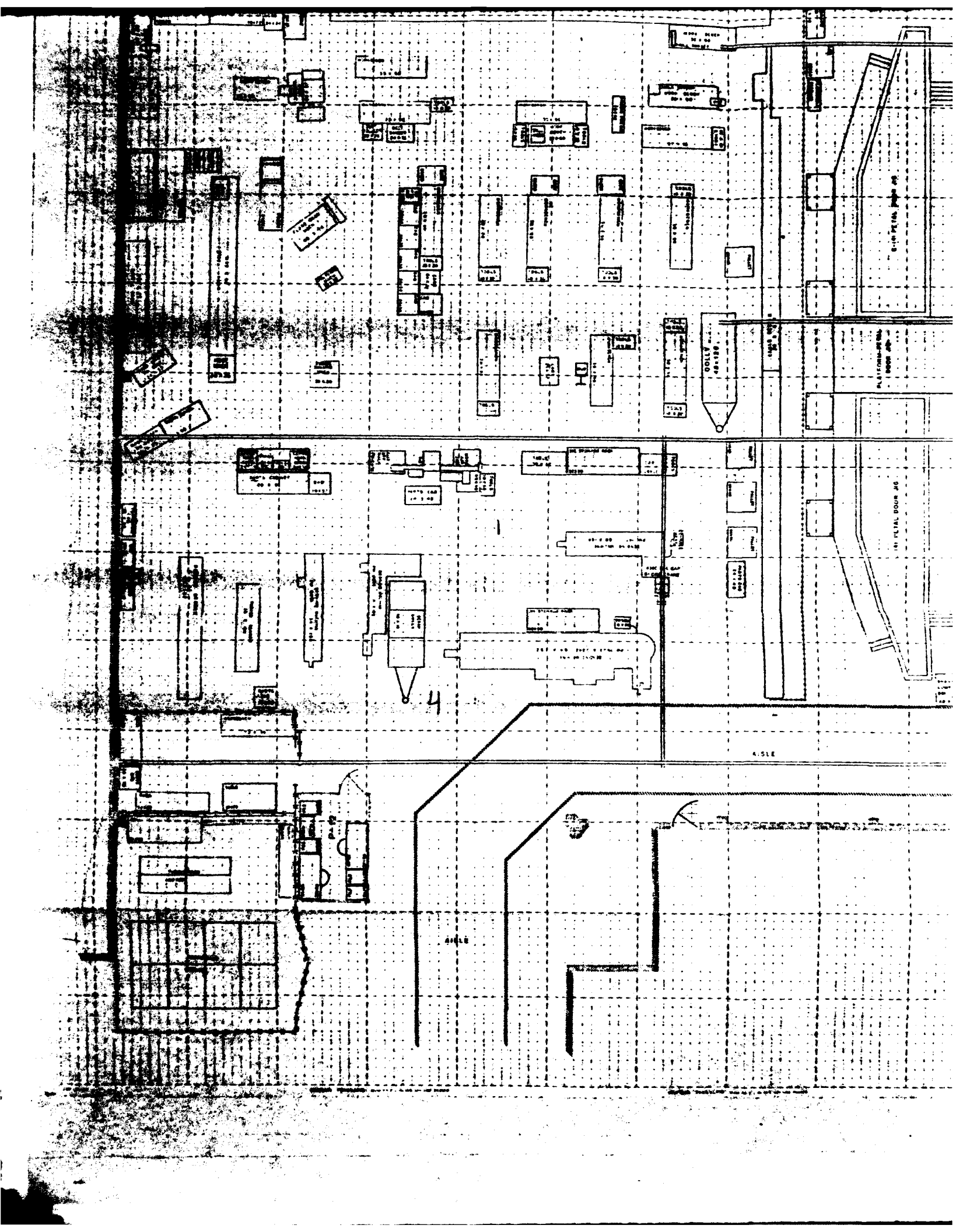
| AIR RAMP FORCE |      |
|----------------|------|
| 1              | 1000 |
| 2              | 1000 |
| 3              | 1000 |
| 4              | 1000 |
| 5              | 1000 |
| 6              | 1000 |
| 7              | 1000 |
| 8              | 1000 |
| 9              | 1000 |
| 10             | 1000 |
| 11             | 1000 |
| 12             | 1000 |
| 13             | 1000 |
| 14             | 1000 |
| 15             | 1000 |
| 16             | 1000 |
| 17             | 1000 |
| 18             | 1000 |
| 19             | 1000 |
| 20             | 1000 |
| 21             | 1000 |
| 22             | 1000 |
| 23             | 1000 |
| 24             | 1000 |
| 25             | 1000 |
| 26             | 1000 |
| 27             | 1000 |
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| 29             | 1000 |
| 30             | 1000 |
| 31             | 1000 |
| 32             | 1000 |
| 33             | 1000 |
| 34             | 1000 |
| 35             | 1000 |
| 36             | 1000 |
| 37             | 1000 |
| 38             | 1000 |
| 39             | 1000 |
| 40             | 1000 |
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| 42             | 1000 |
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| 44             | 1000 |
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| 46             | 1000 |
| 47             | 1000 |
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| 95             | 1000 |
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| 97             | 1000 |
| 98             | 1000 |
| 99             | 1000 |
| 100            | 1000 |

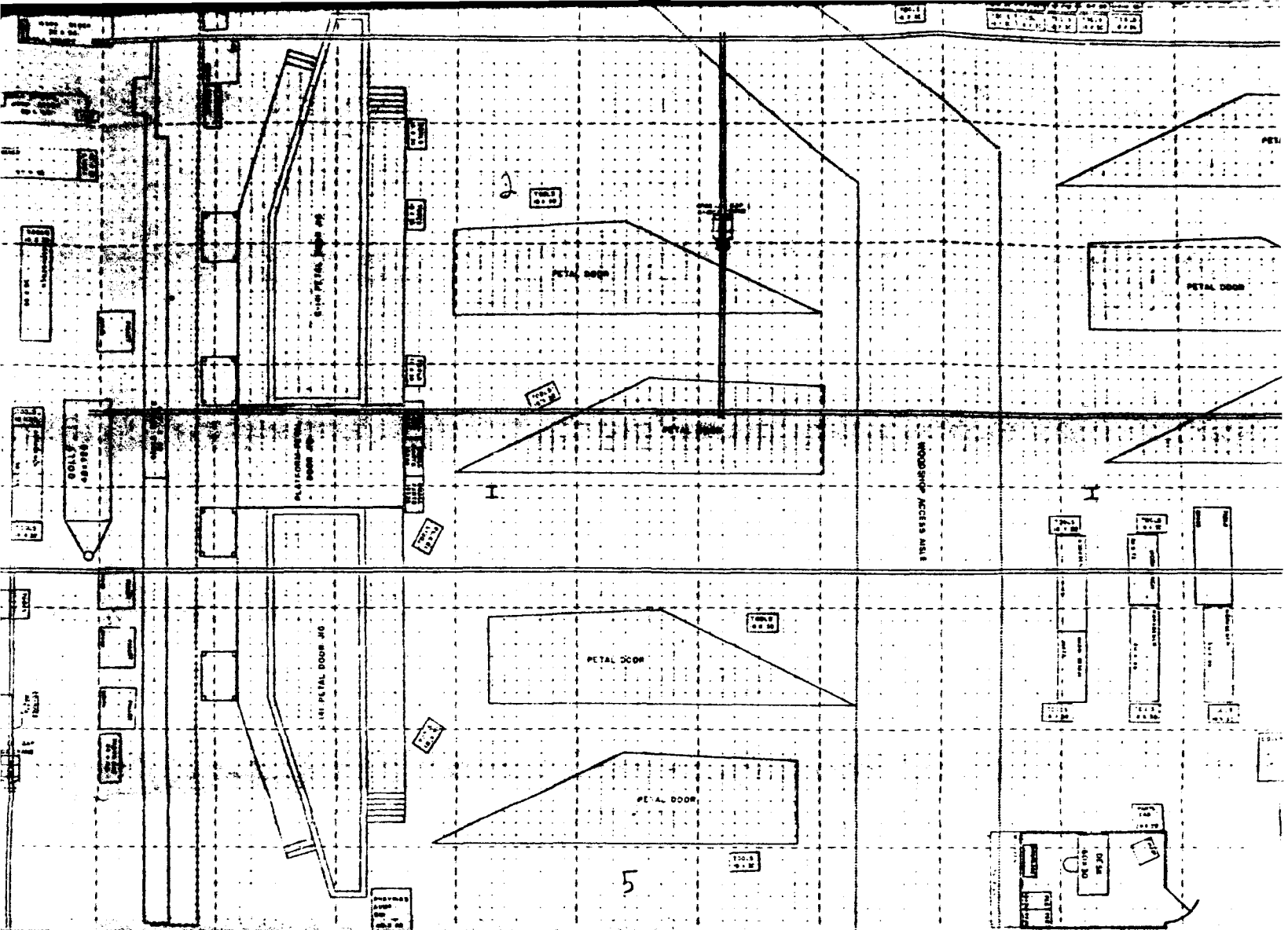




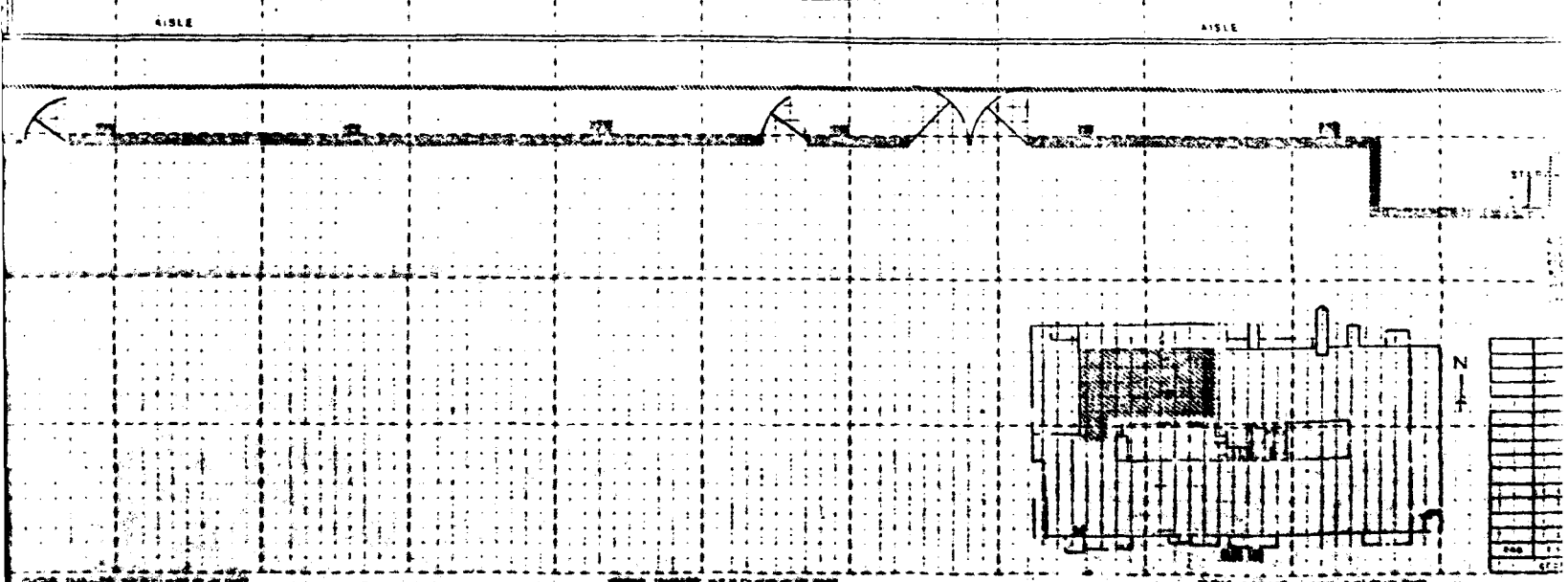


B-169 NORTHWEST END (11)



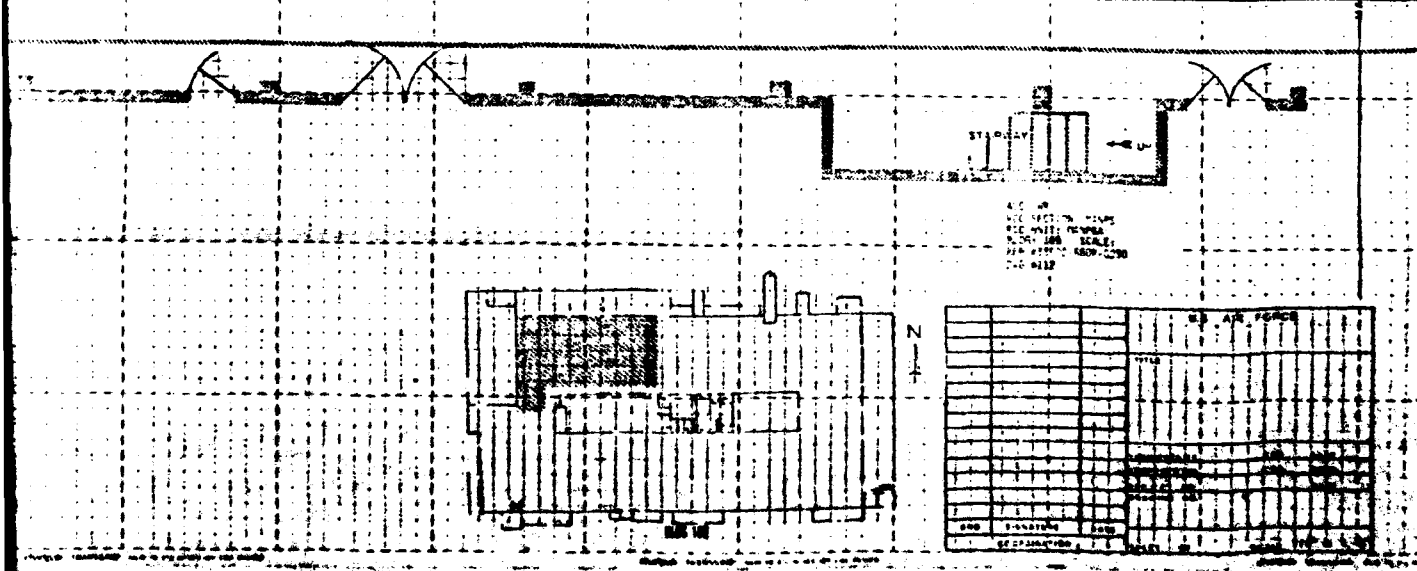
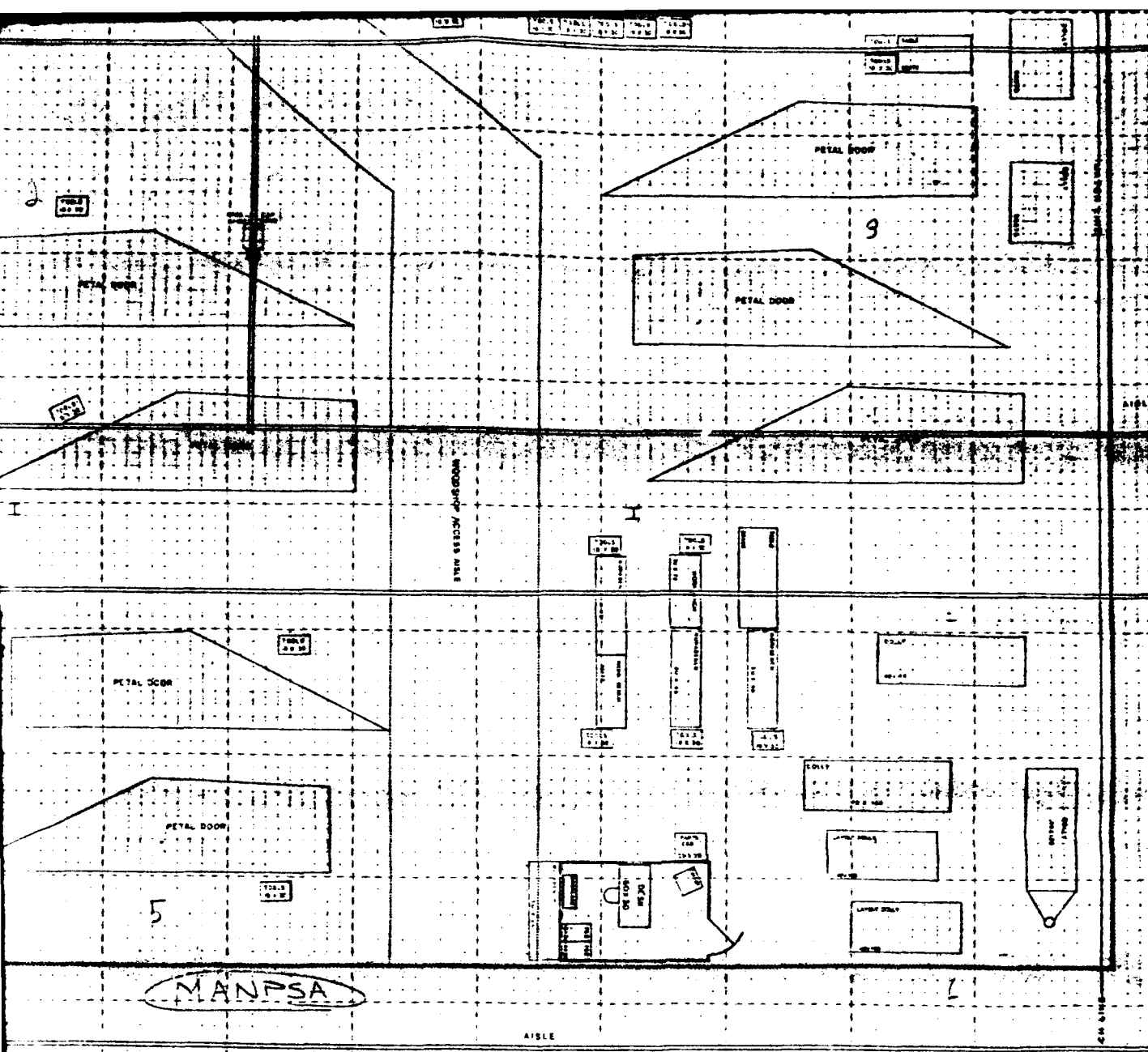


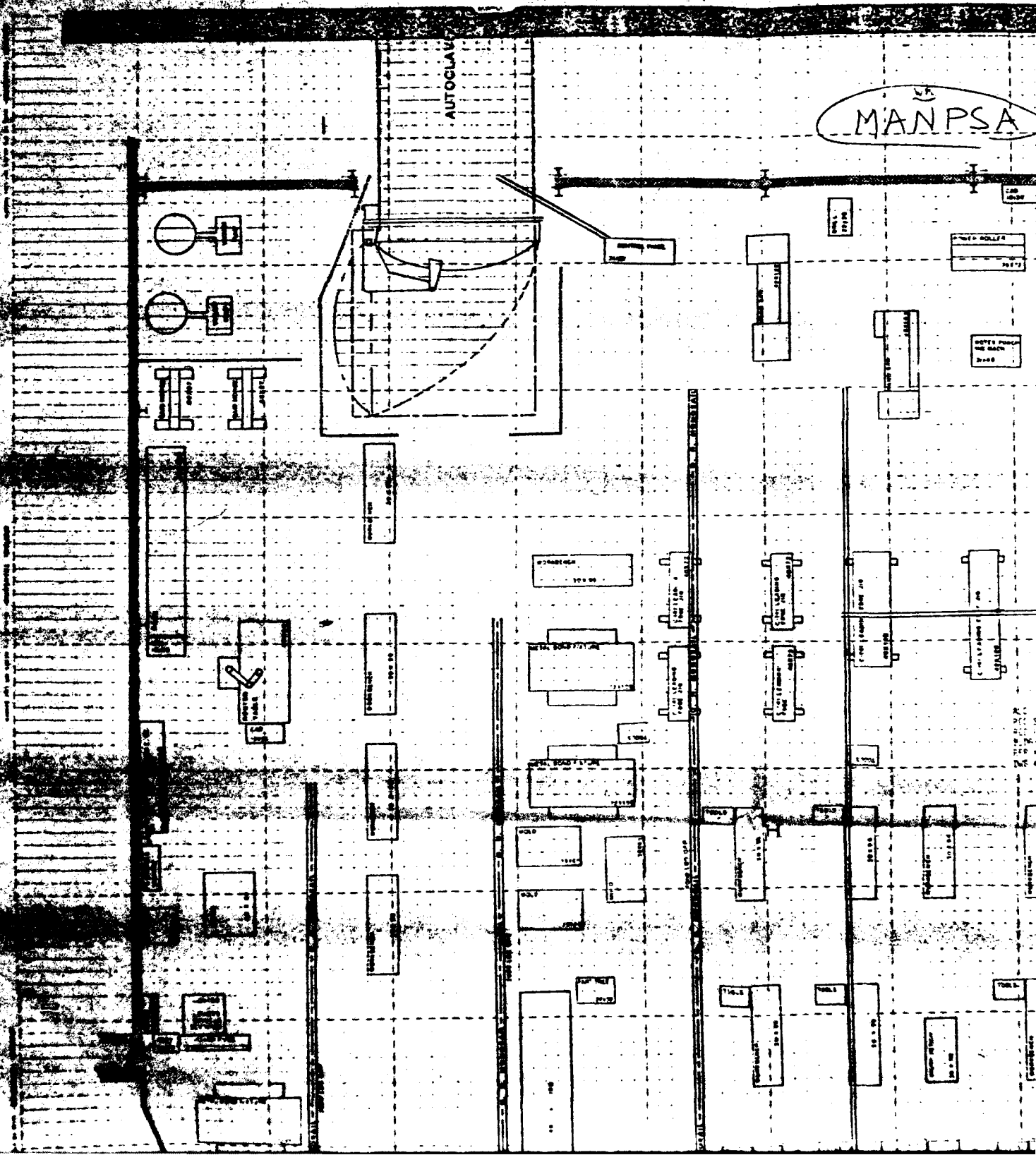
MANPSA



N

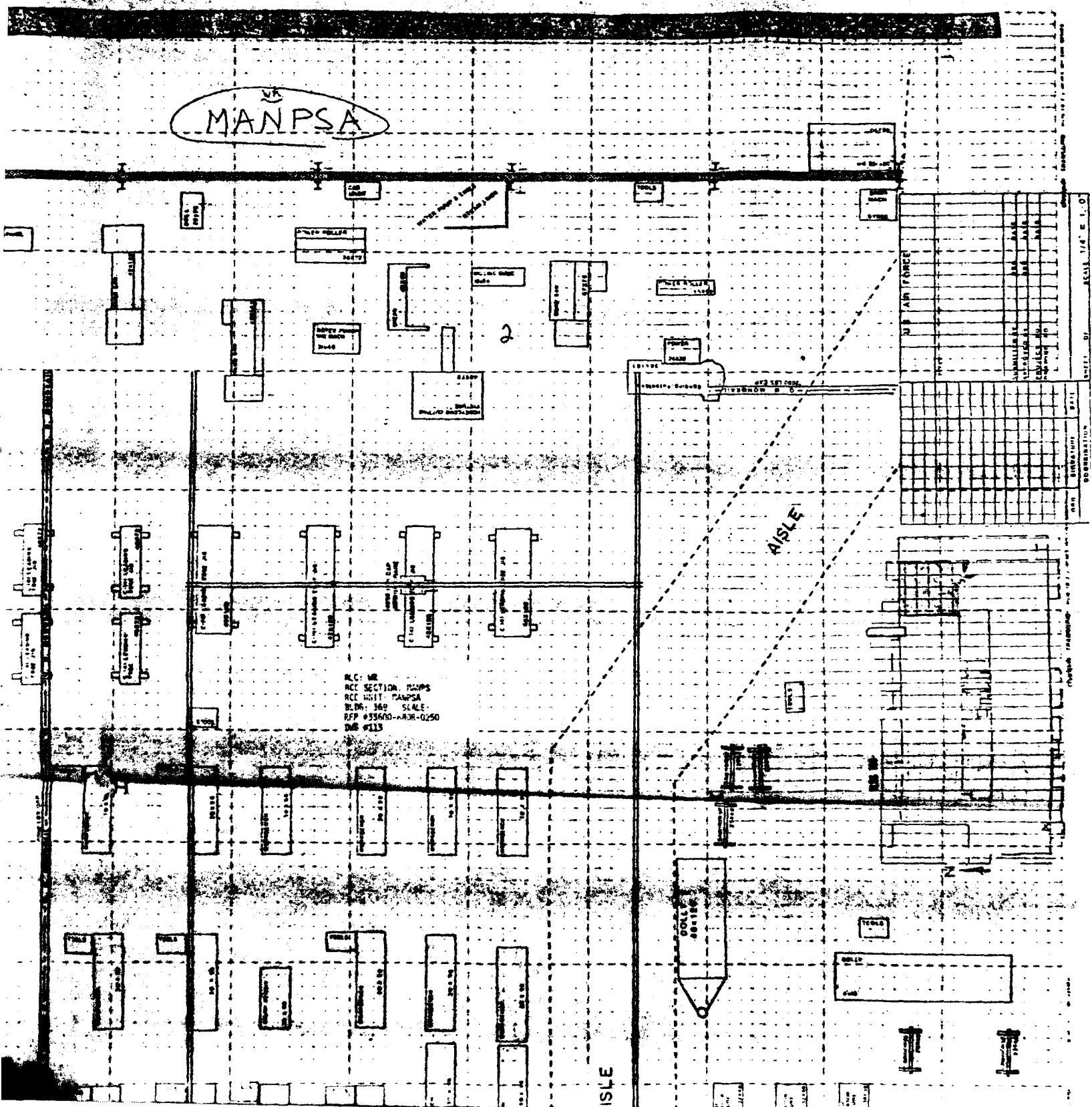


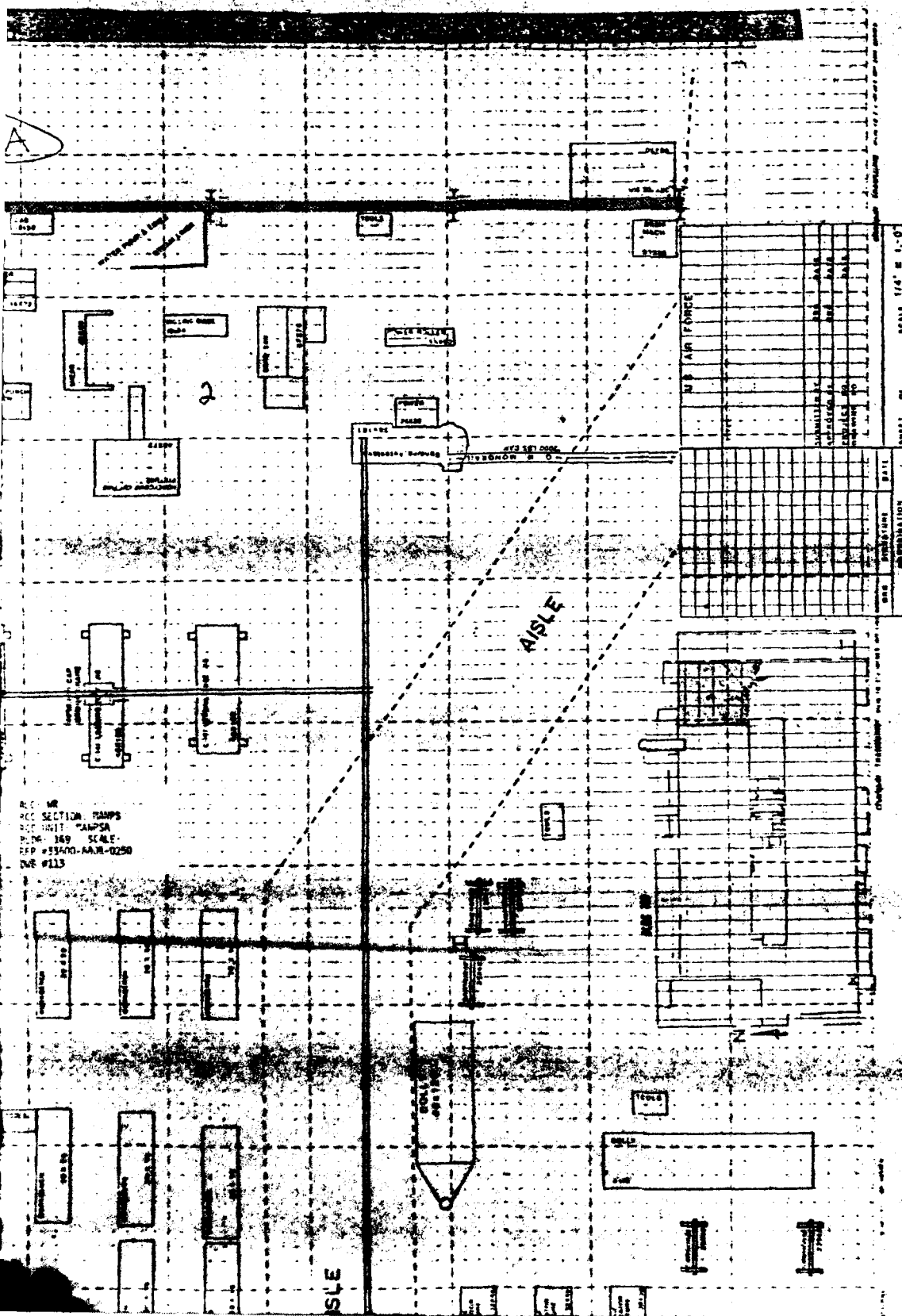




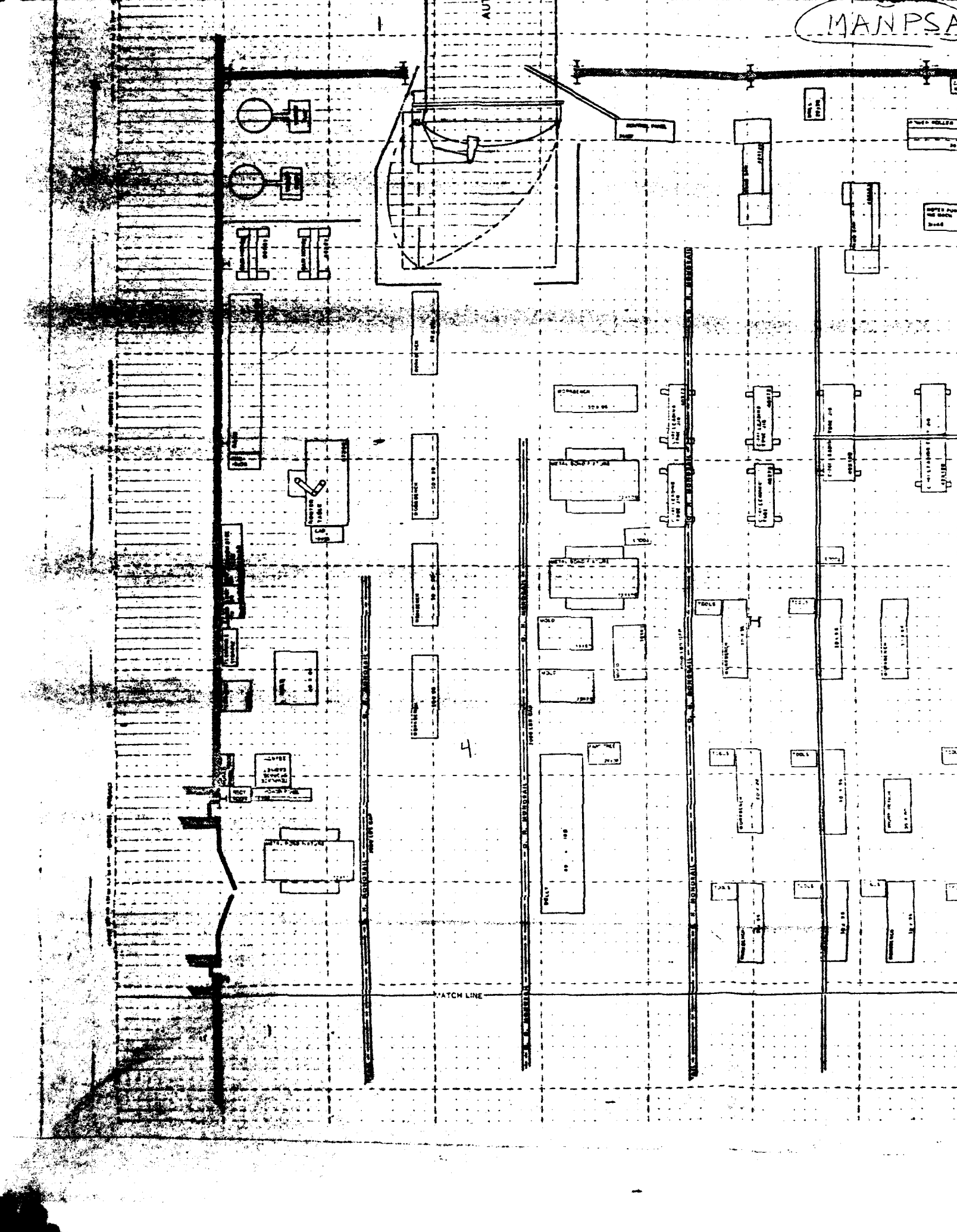


B-109 NORTHEAST END 13





MANPSA



REC: WR  
REC SECTION: TRAPPS  
REC UNIT: TRAPPSA  
BLTH: 164 SCALE:  
RFP #33400-ARJA-0250  
DWG #113

**ASLE**

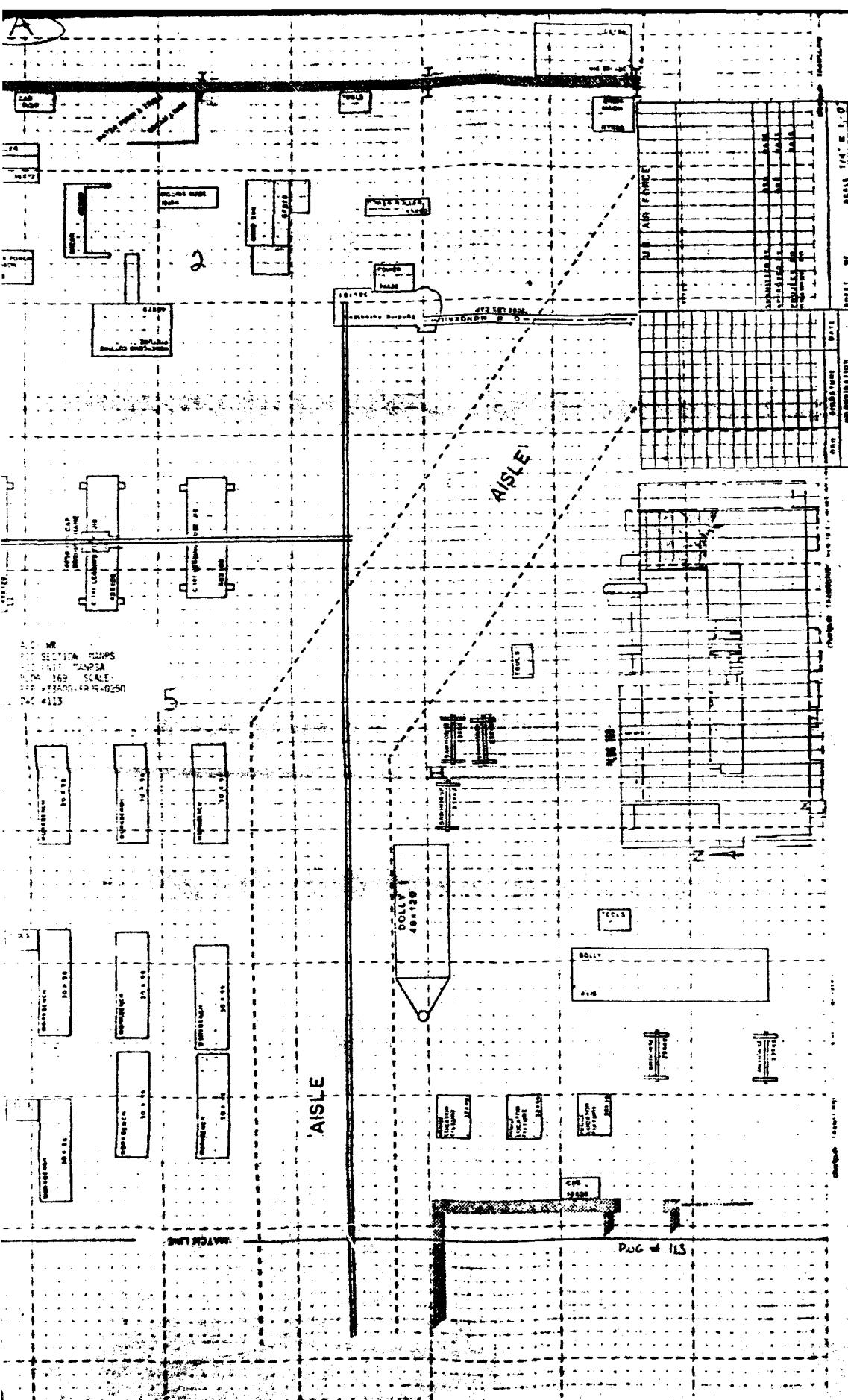
aisle

U.S. AIR FORCE

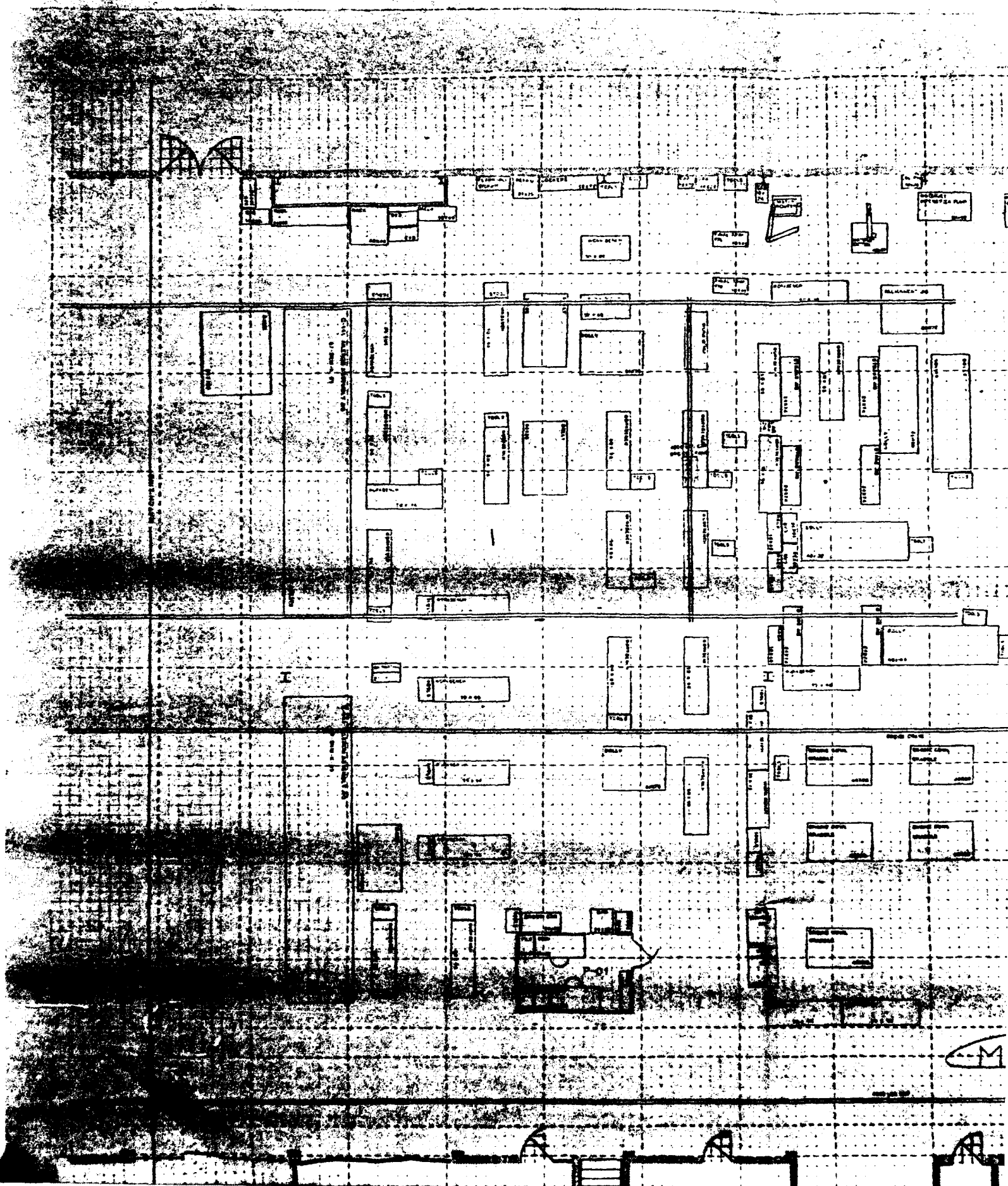
661 3076

DC.

113

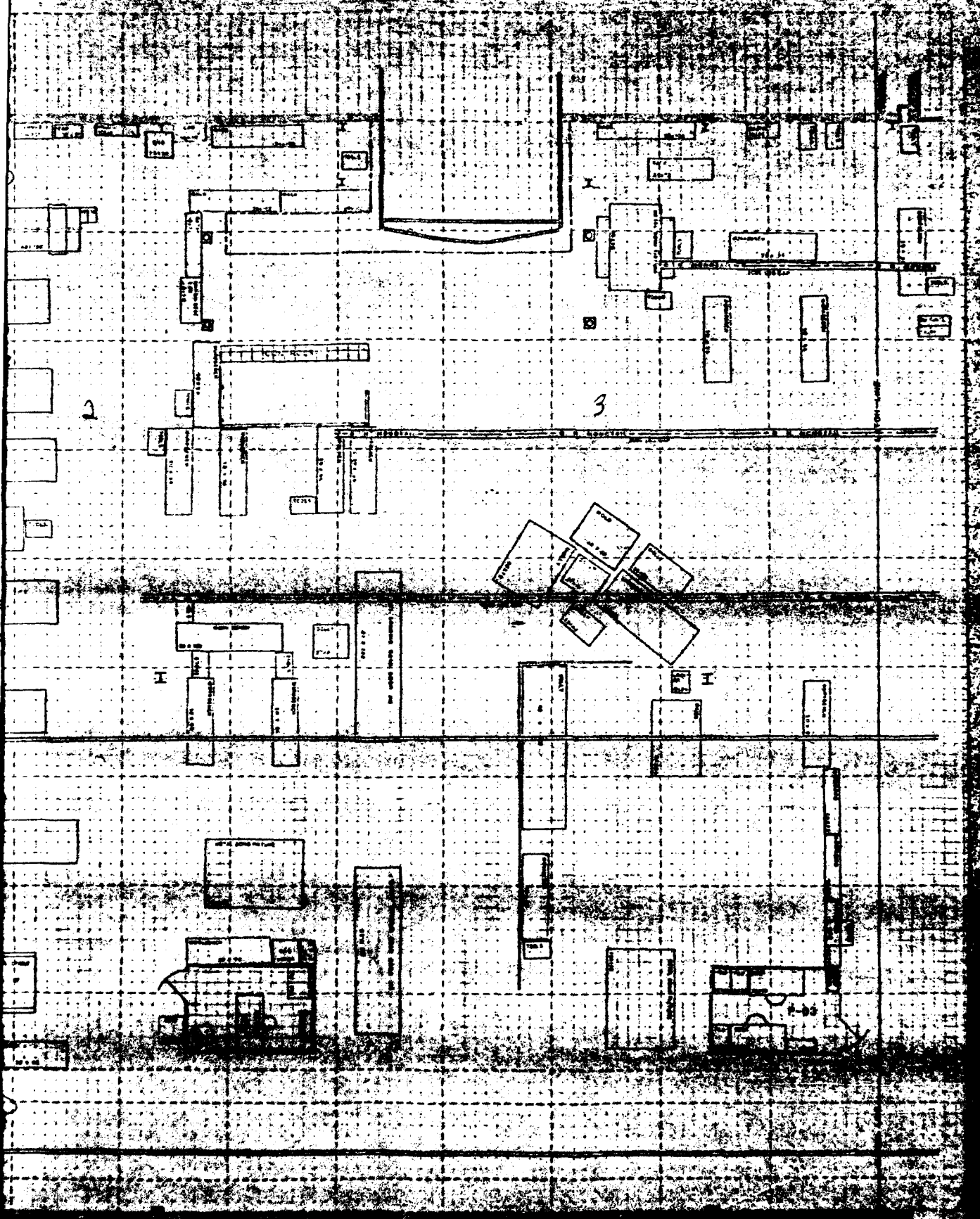


6



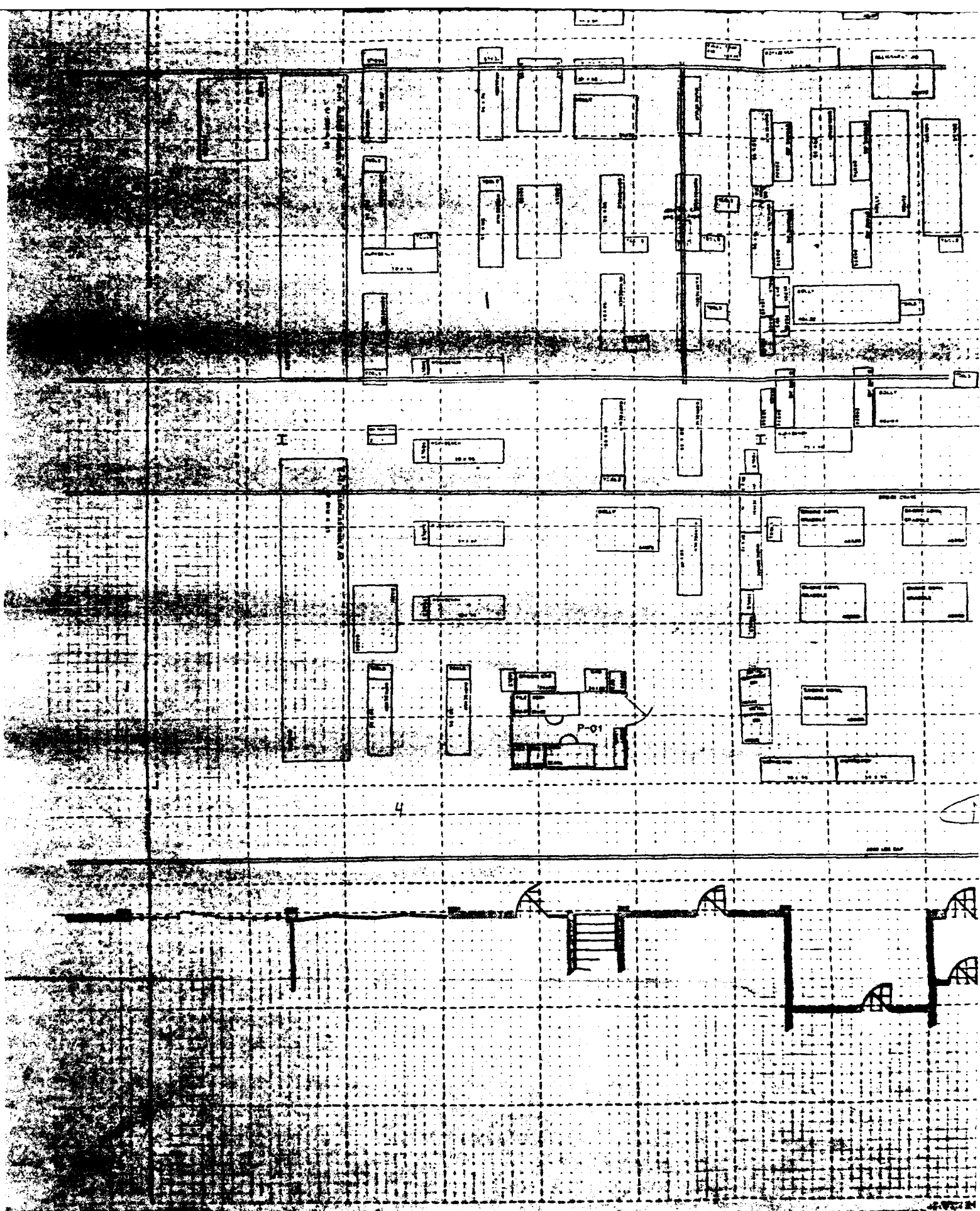


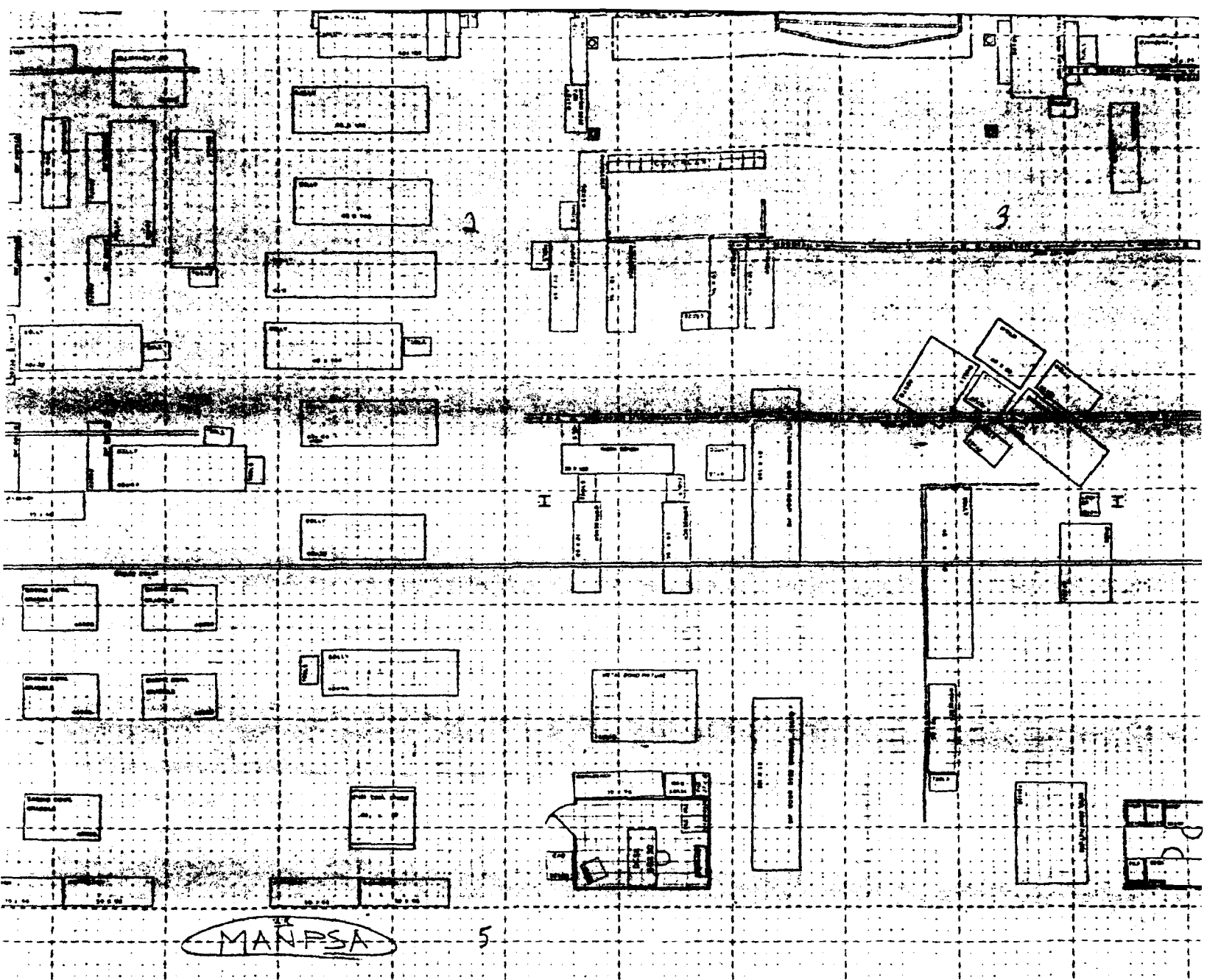




B-169 NORTHEAST CENTER 12



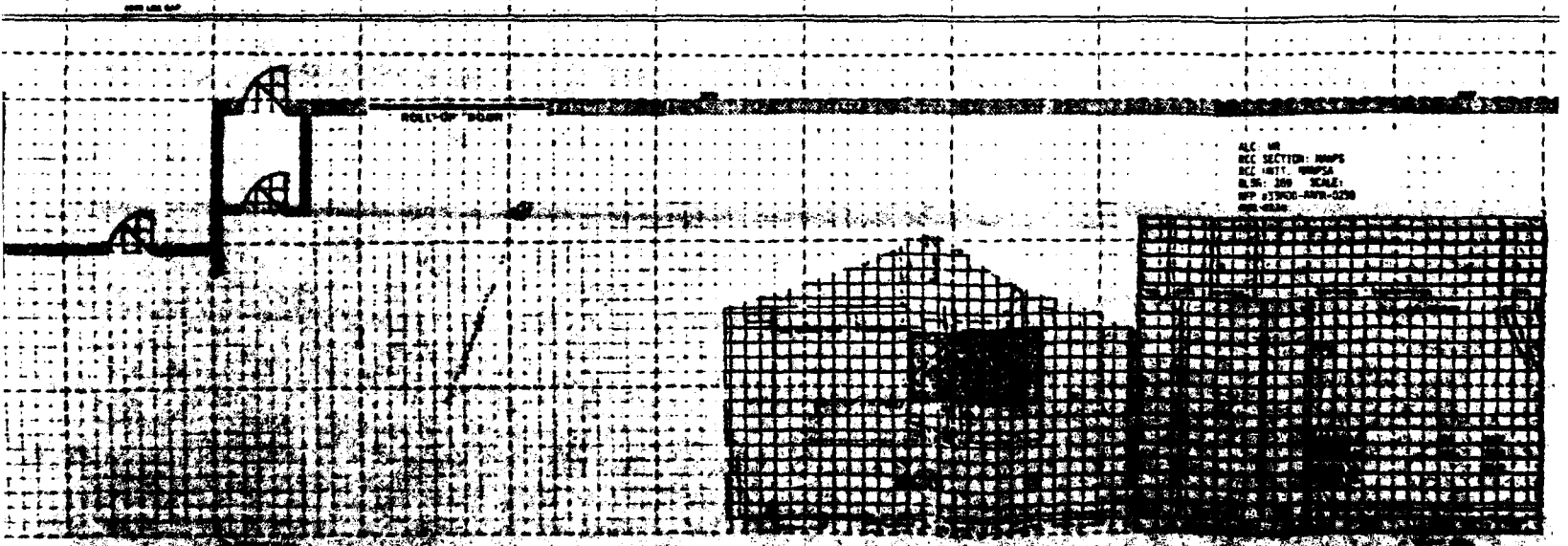




MANPSA

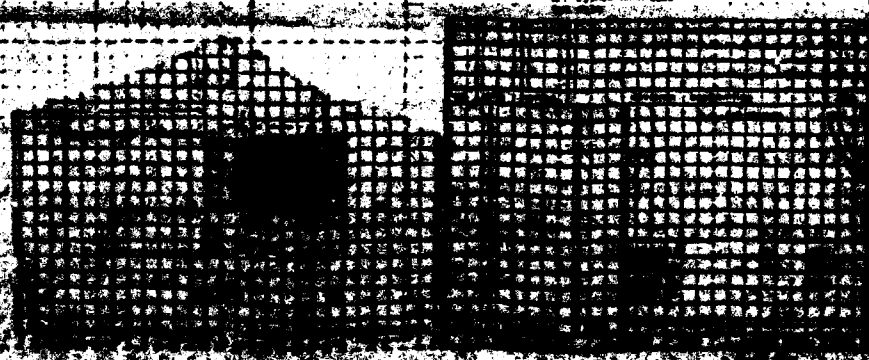
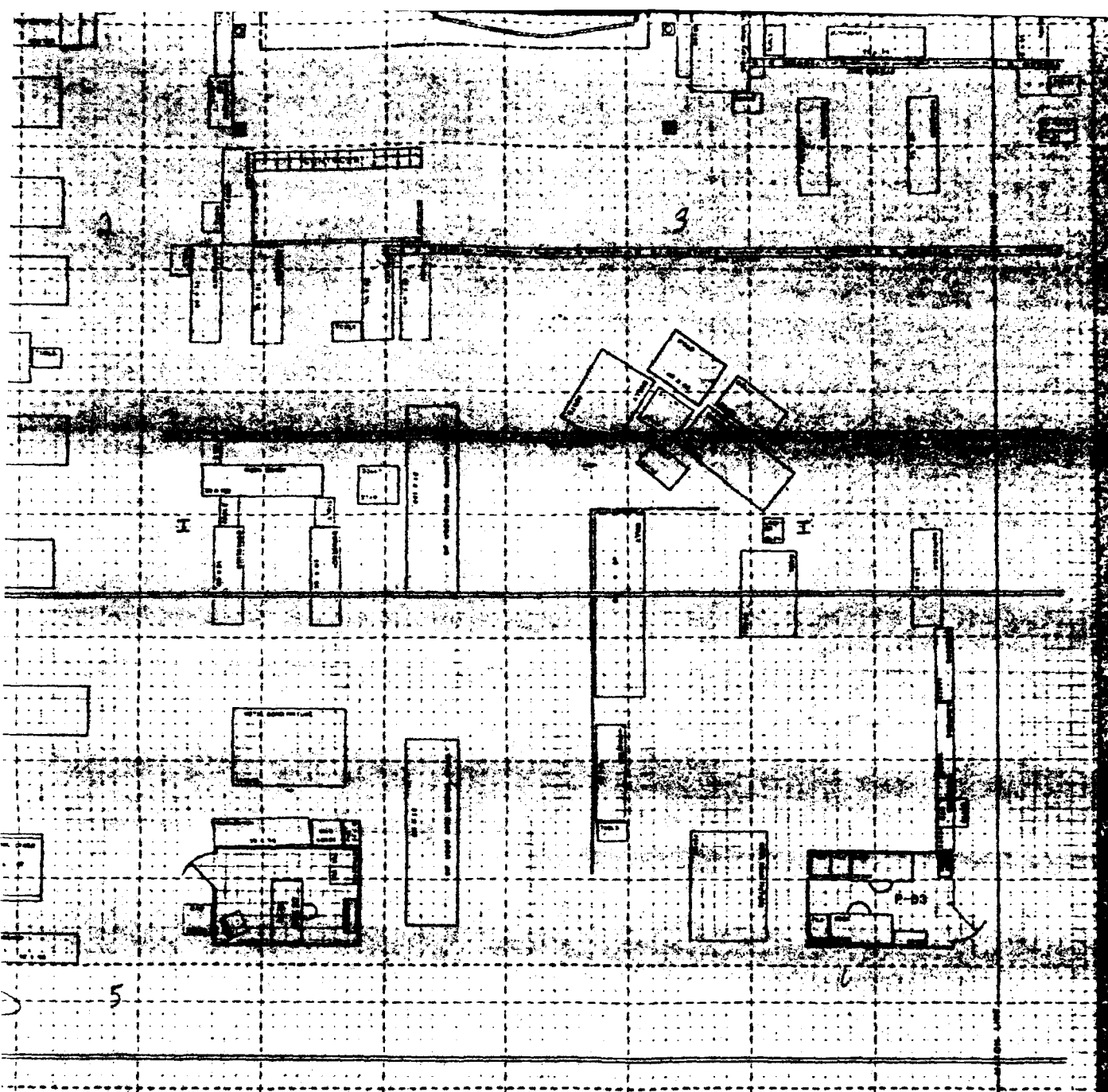
5

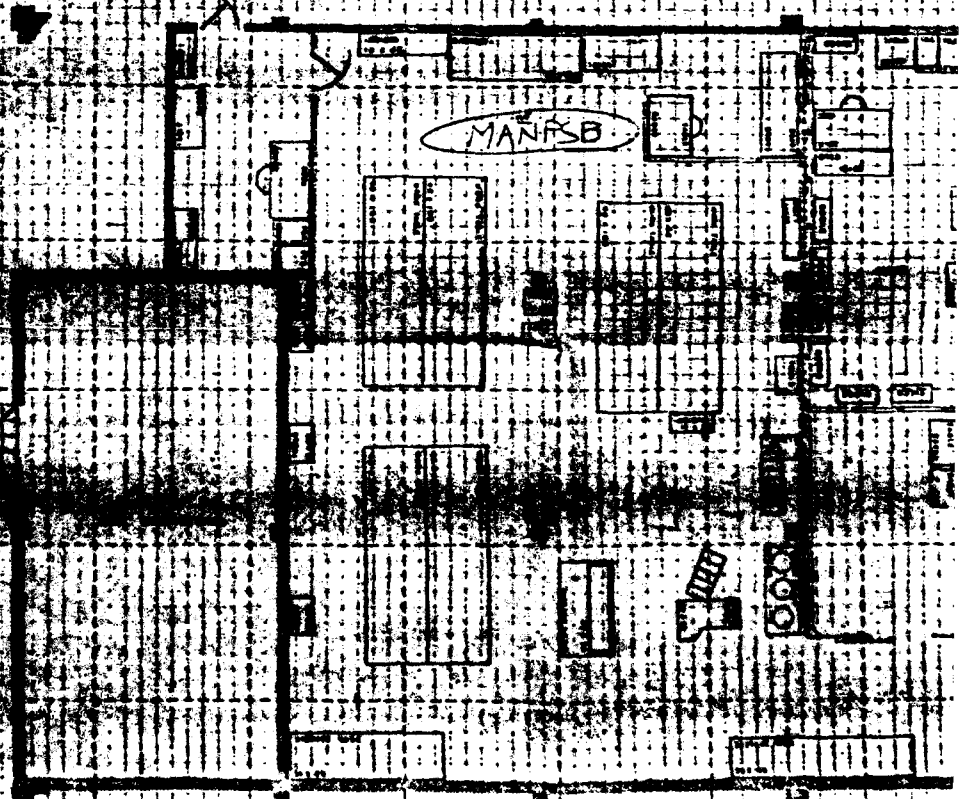
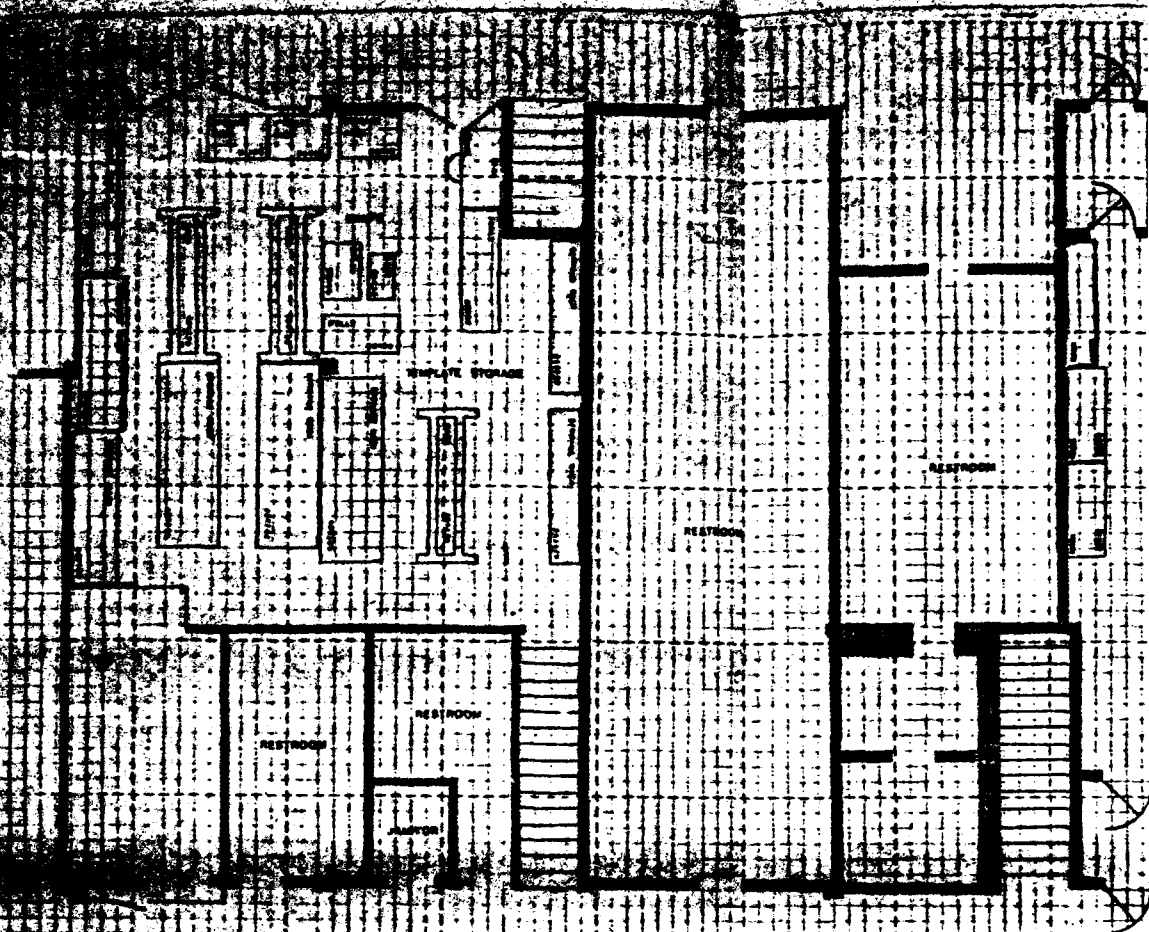
ALC. NO.  
REC. SECTION: MANPSA  
REC. UNIT: MANPSA  
BL. SH: 300 SCALE:  
DTP #13700-0000-0200  
MPS-0000



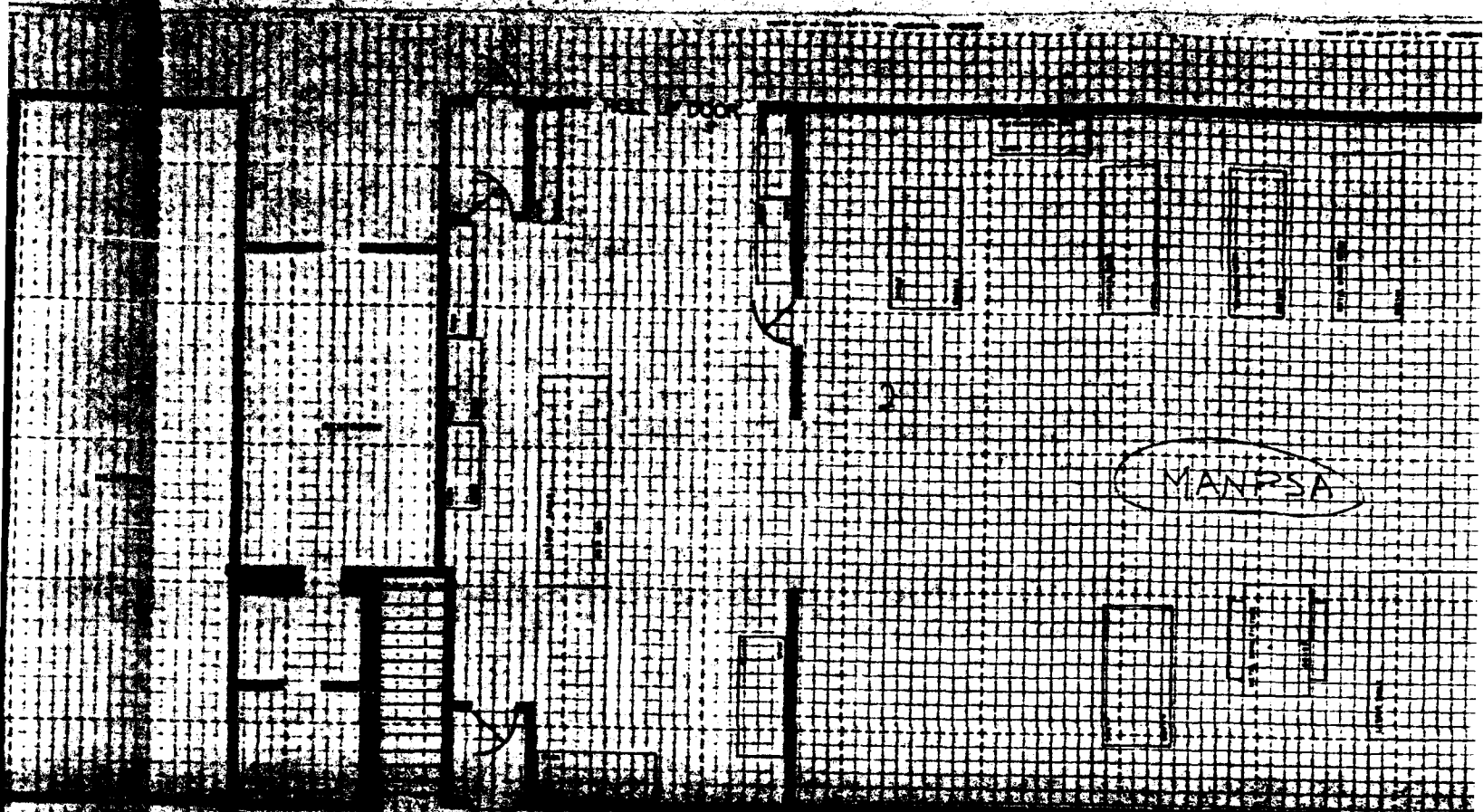
2-100 NORTHEAST CENTER 12

ALL IN  
ONE SECTION: MAPS  
ALL UNIT: MAPS  
B. 101-100 SCALE:  
BPP 61500-1000-0200  
BPP 1000

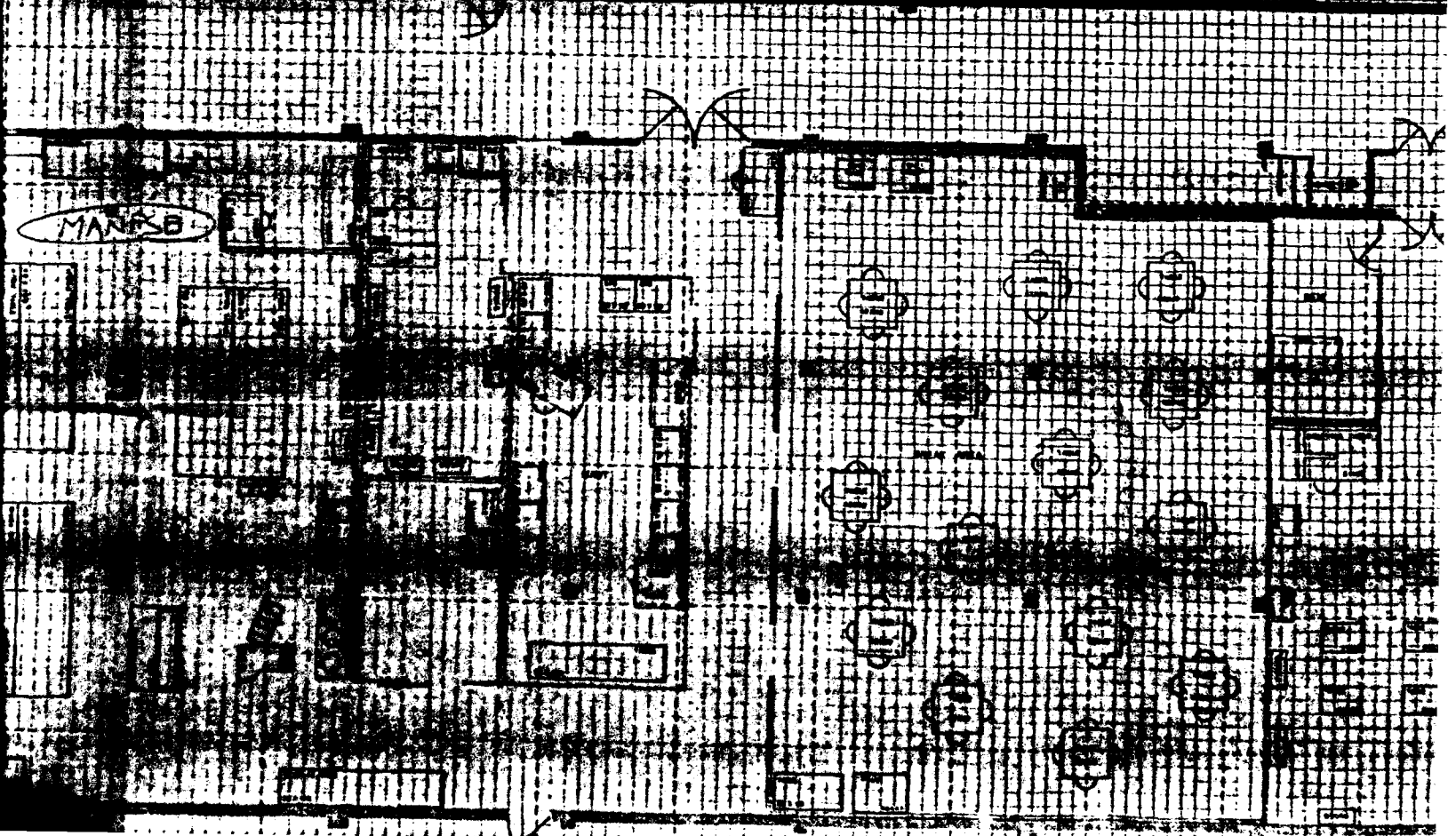




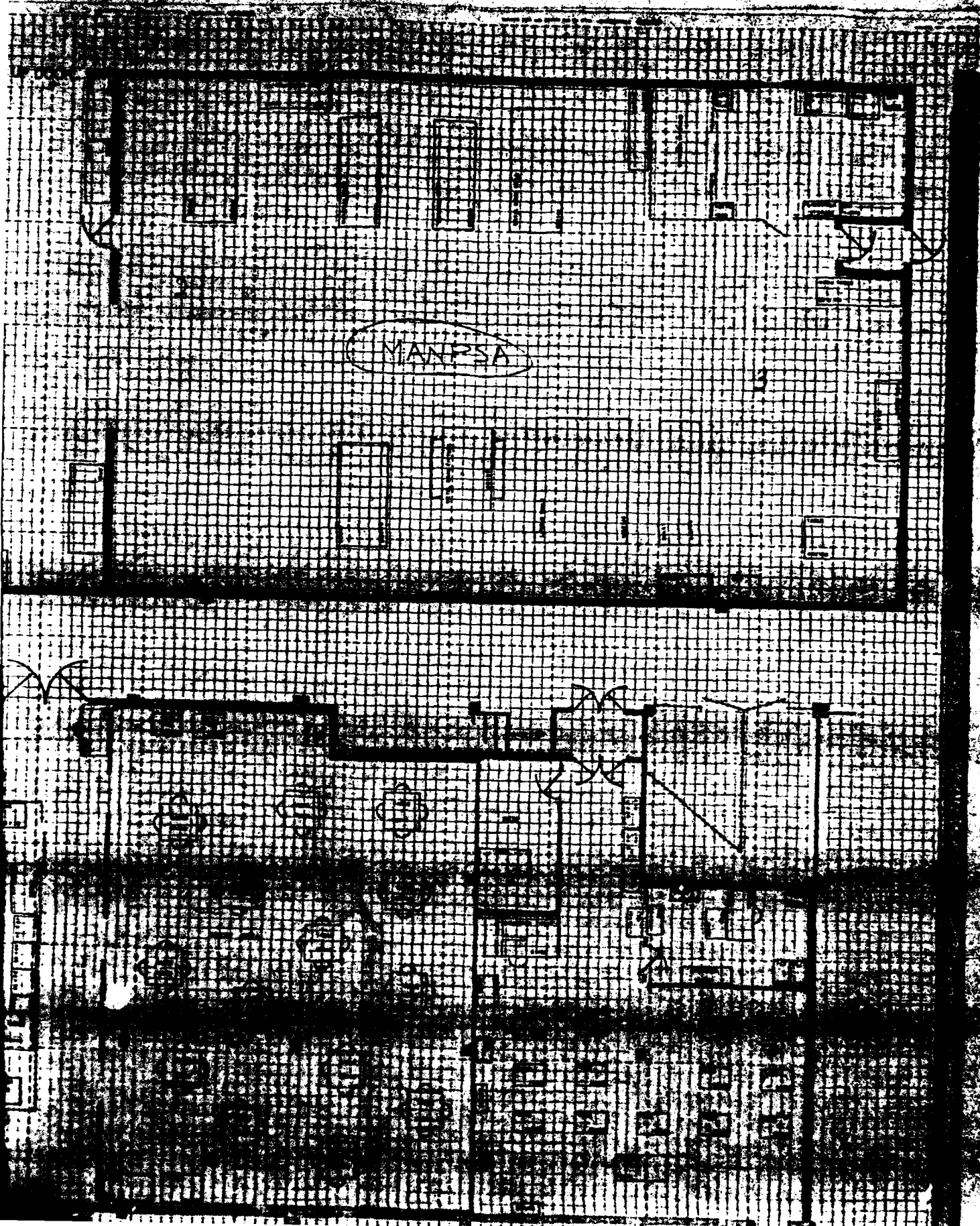




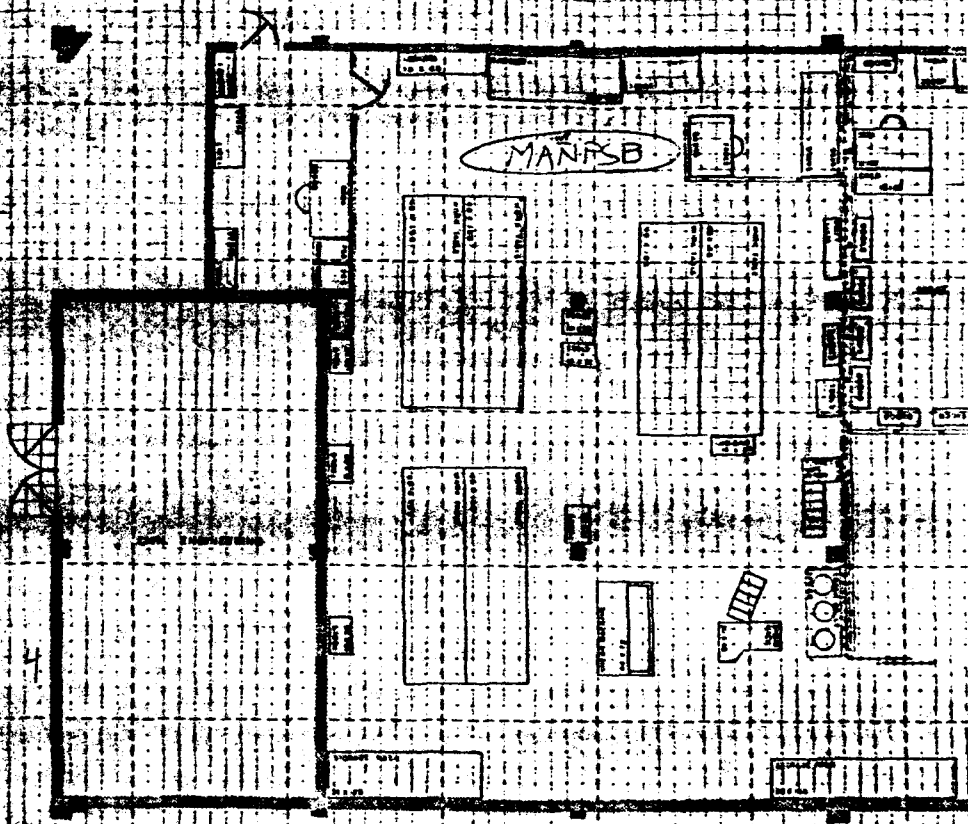
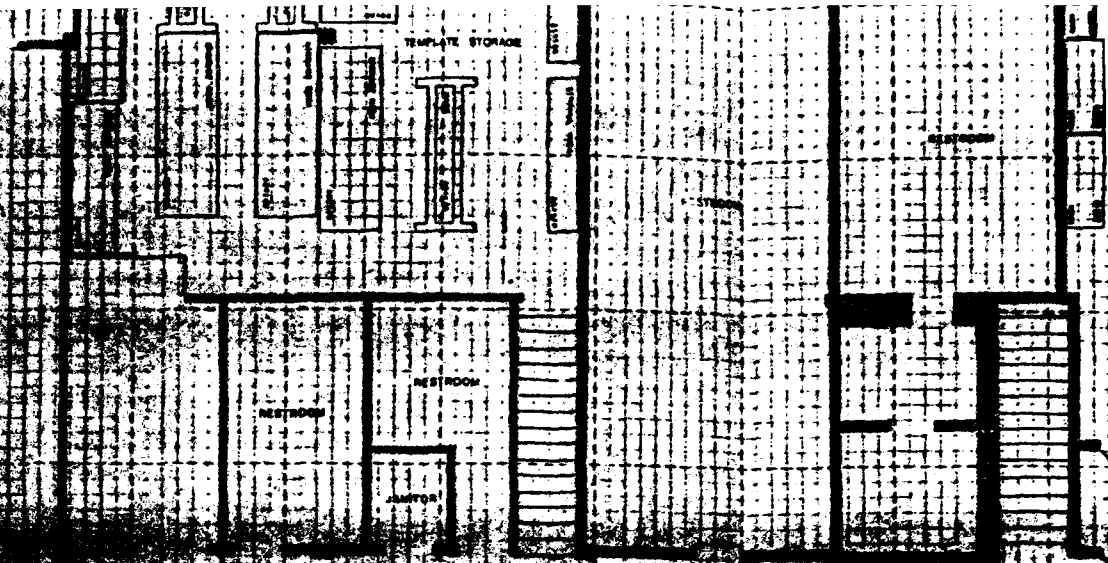
MANPSA



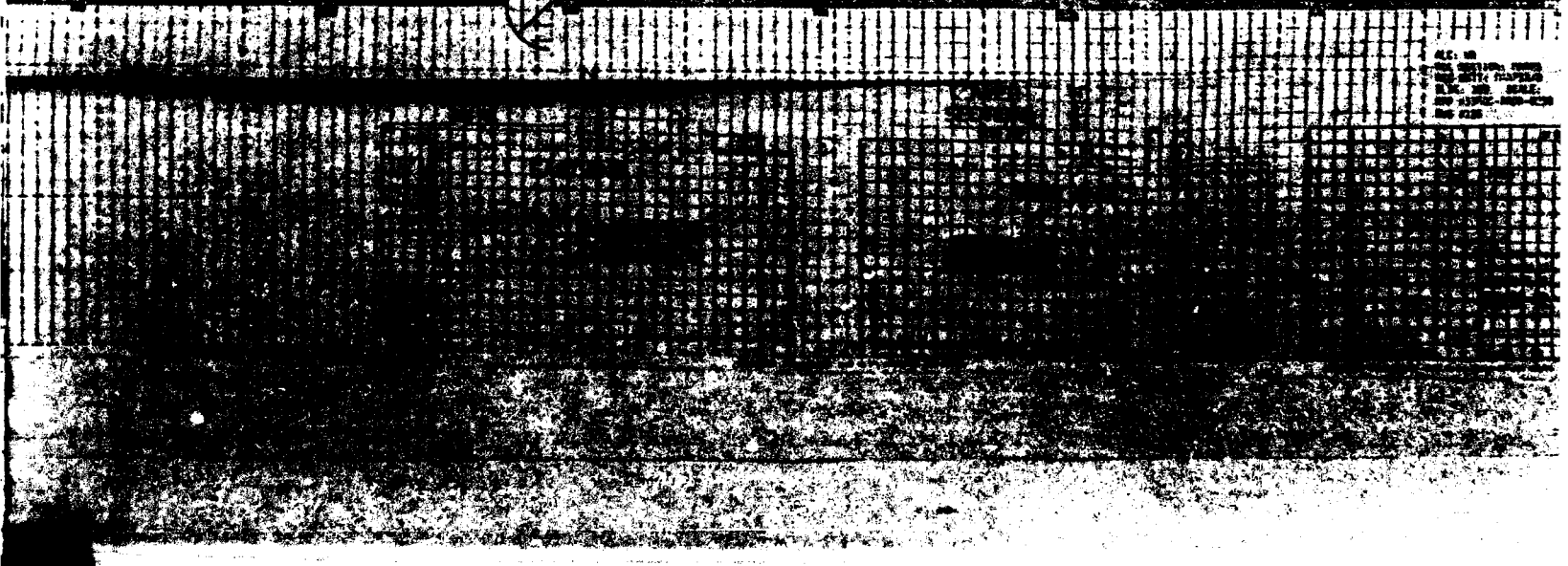
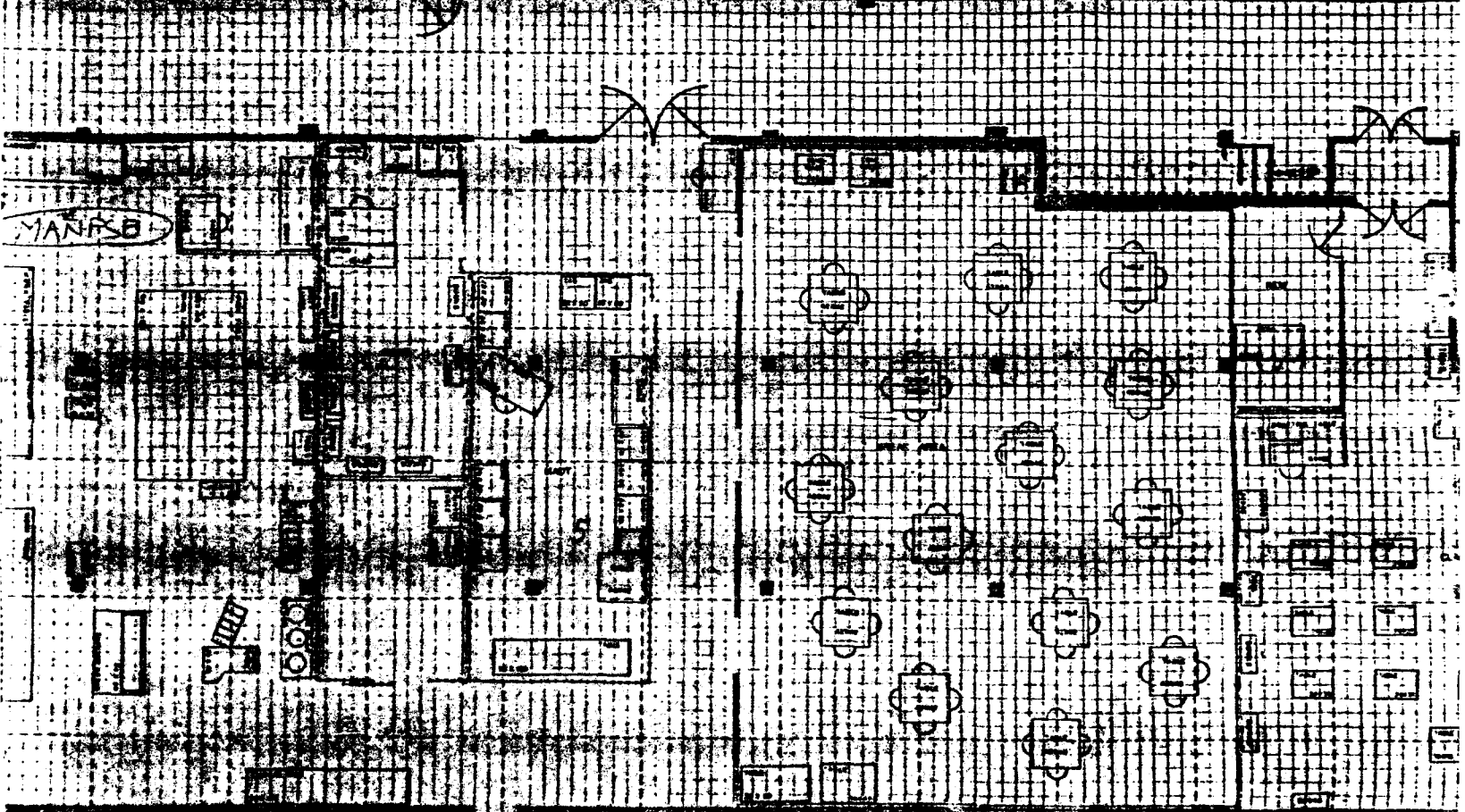
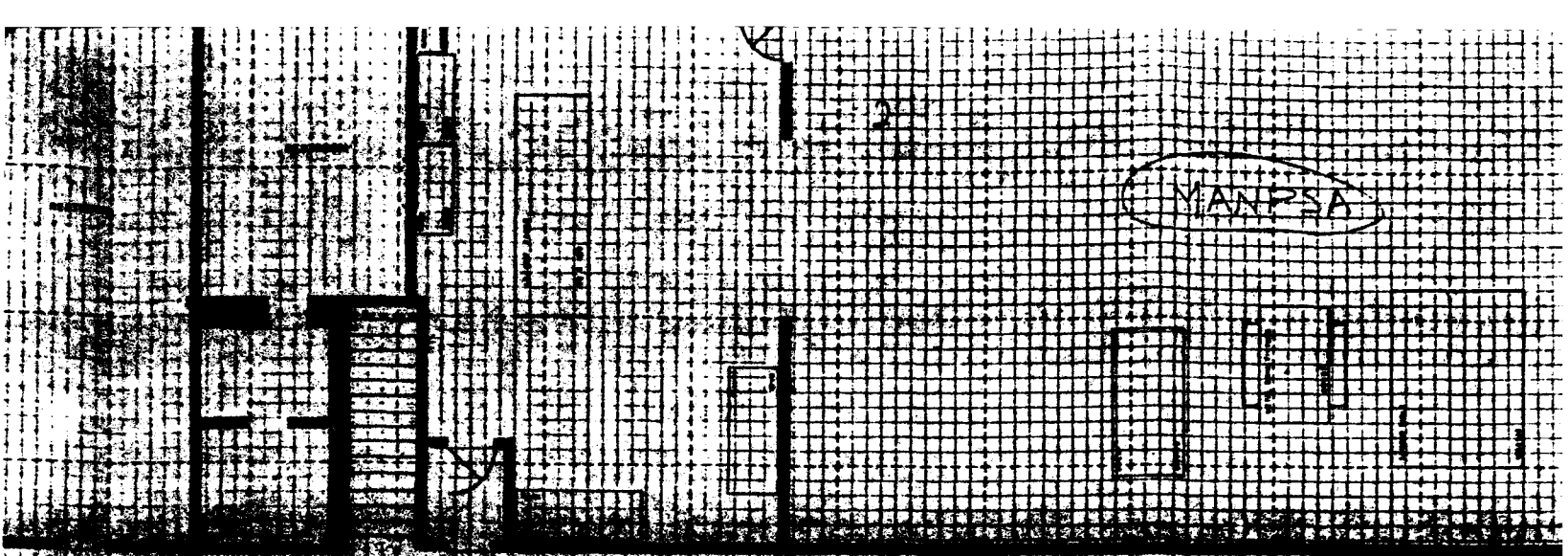
MANPSA



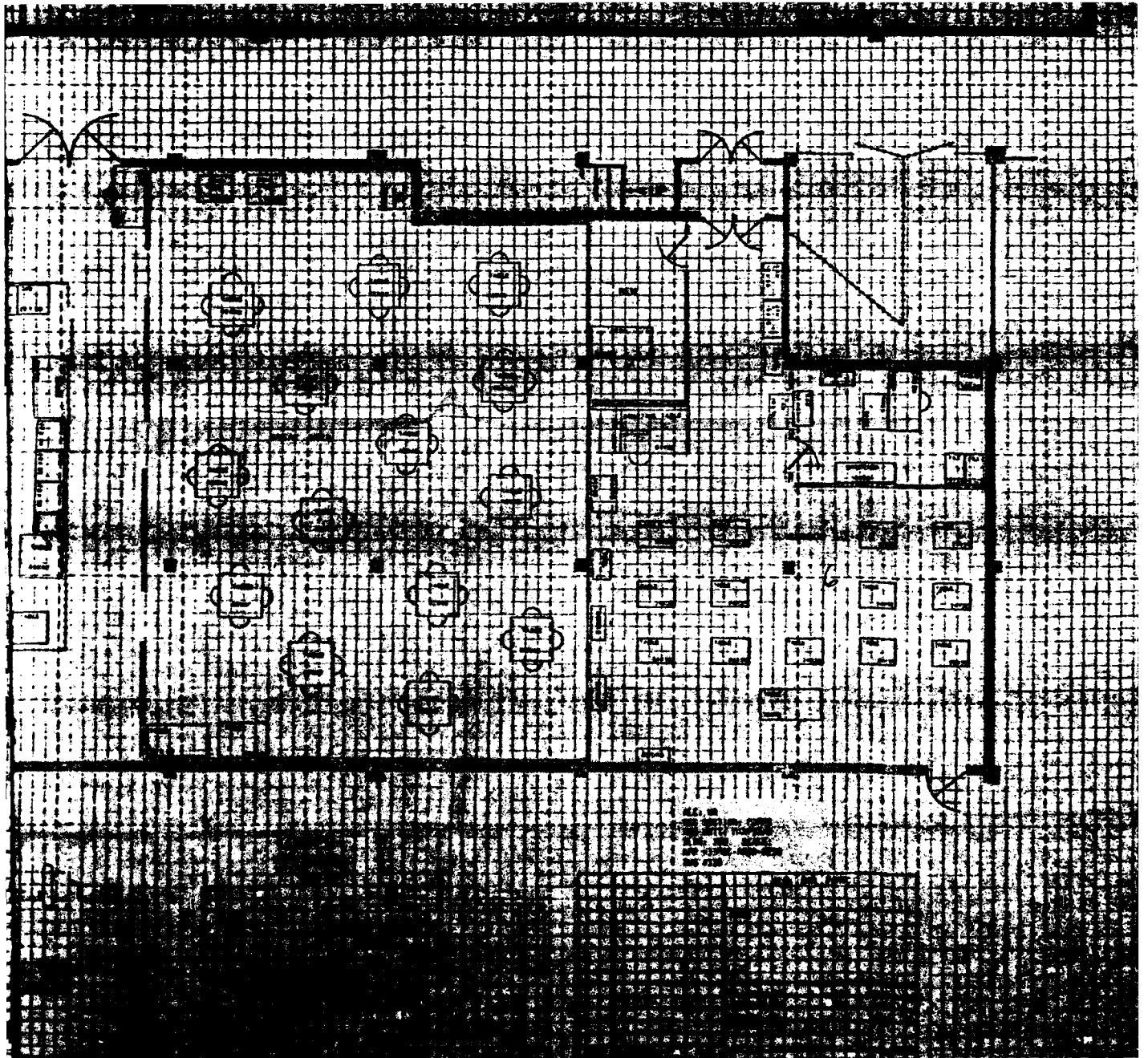
B-100 CENTER SECTION  
(GROUND LEVEL)











| ALC - WR | RCC - MANPSA | MODEL WORKLOAD FILE | 7/ 5/1989 |        |    |
|----------|--------------|---------------------|-----------|--------|----|
| 01900A   | MB006B       | 0 4 6 11 20 11      | 78.70     | 69.10  | OA |
| F-15     | .0           | .0 .0 .0000 .0000   | 0         | .047   | B  |
| 05502A   | MB017Y       | 0 0 17 15 22 23     | 483.50    | 420.20 | OA |
| C-141    | .0           | .0 .0 .0000 .0000   | 0         | .456   | B  |
| 05502AA  | MBA17Y       | 0 0 0 0 0 0         | .00       | 18.20  | OA |
| C-141    | .0           | .0 .0 .0000 .0000   | 0         | .020   | B  |
| 05502AC  | MBC17Y       | 0 0 0 0 0 0         | .00       | .00    | OA |
| C-141    | .0           | .0 .0 .0000 .0000   | 0         | .000   | B  |
| 05502AD  | MBD17Y       | 0 0 0 0 0 0         | .00       | .00    | OA |
| C-141    | .0           | .0 .0 .0000 .0000   | 0         | .000   | B  |
| 51334A   | MB008B       | 0 4 0 3 3 5         | 92.80     | 65.00  | 1A |
| C-141    | .0           | .0 .0 .0000 .0000   | 0         | .010   | B  |
| 51352A   | MB010B       | 0 4 74 26 54 26     | 25.40     | 26.60  | 1A |
| C-141    | .0           | .0 .0 .0000 .0000   | 0         | .068   | B  |
| 51418A   | MB032B       | 0 4 10 13 13 8      | 134.30    | 117.10 | 2A |
| C-141    | .0           | .0 .0 .0000 .0000   | 0         | .073   | B  |
| 51454A   | MB030B       | 0 4 8 9 8 10        | 556.90    | 642.00 | OA |
| C-141    | .0           | .0 .0 .0000 .0000   | 0         | .317   | B  |
| 51454AA  | MBA30B       | 0 4 0 0 0 0         | .00       | 3.70   | OA |
| C-141    | .0           | .0 .0 .0000 .0000   | 0         | .002   | B  |
| 51454AC  | MBC30B       | 0 4 0 0 0 0         | .00       | .00    | OA |
| C-141    | .0           | .0 .0 .0000 .0000   | 0         | .000   | B  |
| 51454AD  | MBD30B       | 0 4 0 0 0 0         | .00       | 16.00  | OA |
| C-141    | .0           | .0 .0 .0000 .0000   | 0         | .008   | B  |
| 51454AE  | MBE30B       | 0 4 0 0 0 0         | .00       | .00    | OA |
| C-141    | .0           | .0 .0 .0000 .0000   | 0         | .000   | B  |

# CONTROL NUMBERS BY RCC

|       | <u>RCC</u>            | <u>C/N</u>    | <u>NOUN</u>       | <u>ORIGINALS</u> |
|-------|-----------------------|---------------|-------------------|------------------|
|       | MNPSA                 | 51454A 51455A | PETAL DOOR        | 19105            |
|       |                       | 01900A        | BRAKEAER          | 9171             |
|       | (6) (4 <sup>+</sup> ) | 51352A 51353A | DOOR              | 8342             |
|       |                       | 51418A 51419A | LEADING           | 6480 43098       |
| 11/23 | ADD                   | 05502A 05503A | AILERON           |                  |
|       |                       | 51334A        | HORIZ. STABILIZER |                  |
|       | MNPSC                 | 06691A 06692A | COWLING R4L       | 97484            |
|       |                       | 50164A        | SCUP              | 4032             |
|       |                       | 51402A        | DR THRUST         | 3110             |
|       | 5                     | 50266A        | ELEVATOR          | 2770             |
|       |                       | 50242A 50244A | FLAP              | 3504 110900      |
|       |                       | (50454A)      |                   |                  |
|       | MNPSD                 | 03172A        | CANOPY            | 49719            |
|       |                       | 51344A        | NOZZEL            | 34626            |
|       |                       | 09193A F15    | RADOME            | 21107            |
|       | (7) (6 <sup>+</sup> ) | 41059A C130   | RADOME ASSY       | 9310             |
|       |                       | 03427A        | CANOPY            | 6900             |
|       |                       | 40208A C141   | RADOME            | 5495 127157      |
| 11/23 | ADD                   | 51420A        | LEADING EDGE      | 281155           |

## SHEET METAL SHOP

BB  
10/14/88

|  | <u>RCC</u> | <u>ORG HRS</u> | <u>80%</u> | <u>NO. OF HRS<br/>SELECTED FOR STUDY</u> |
|--|------------|----------------|------------|------------------------------------------|
|  | MANPSA     | 53450          | 42760      | 43098 (81%)                              |
|  | MANPSC     | 144209         | 115367     | 110900 (77%)                             |
|  | MANPSD     | 156501         | 125200     | 127157 (81%)                             |

CALCULATED FROM DOC. GORC AS OF 22 SEP 88 FOR RCC MANPS  
AND ALLOCATED C/N'S FOR UNITS A, C & D.

BB  
12/13

MANPSA DATA BOOK

C-141 Petal Door  
C/N 51454A/51455A

F-15 Speed Brake  
C/N 01900A

C-141 Access Door  
C/N 51352A/51353A

C-141 Leading Edge  
C/N 51418A/51419A

C-141 Aileron  
C/N 05502A/05503A

C-141 Horizontal Stabilizer  
C/N 51334A

EQUIPMENT PROFILE SAS

NAME: BILL RICH

SHEET 1 OF L

NOTES

RCC: MANPSA

DATE: 5-8-89

ALC: WR

UNSCHE X NOT FOOTPRINT  
MTBF MTR AVAIL MIN MAX

PREV MAINT  
FRQ S TIME

QUANT AVAIL  
S1 S2 S3

EQUIP  
DESCR

SOURCE

ALT

EQP

10

10

10

10

10

10

10

10

10

10

10

10

10

10

10

10

10

1191

10

100 175.0

180 1

1

OVEN

1178

1190

1190

1190

10

120 56.0

180 2

2

JIG ASSY

3774

3874

3774

1190

10

365 1

1

90.0

JIG ASSY

4325

4325

4325

1190

10

180 2

24.0

24.0

AILERON JIG

9450

9450

9450

1190

10

180 2

24.0

24.0

AILERON JIG

0570

0570

0570

1190

10

180 2

24.0

24.0

AILERON JIG

0570

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0570

1190

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180 2

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AILERON JIG

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AILERON JIG

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0570

1190

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180 2

24.0

24.0

AILERON JIG

0570

0570

0570

NAME: BILL BUCH

## MANPOWER PROFILE

**SAS**

8:11 WEDNESDAY, APRIL 5, 1989

**ALC: WR**

DATE: 5-8-59

**RCC: MANPSA**

SHEET 7 OF 2

| SK CODE | DESCRIPYIN QTR | QUANTITY AVAILABLE |   |   | AVAILABLE HRS (PER SHIFT) |   |     | HOLIDAY | HOLIDAY | ALTERNATE<br>SKILL CD/LVL | NOTES |
|---------|----------------|--------------------|---|---|---------------------------|---|-----|---------|---------|---------------------------|-------|
|         |                | WORK WEEK<br>1     | 2 | 3 | WORK WEEK<br>1            | 2 | 3   |         |         |                           |       |
| 47891   | WG-1Q, MB 1    | .                  | . | . | .                         | . | 5.6 | .       | .       | .                         | .     |
|         |                | 1                  | 2 | 3 | 1                         | 2 | 3   | 1       | 2       | 3                         |       |

✓ 47891 WC-10, MB 1

✓ 47891 WG-10, MB 4

•

49533

✓ 49533 WG-08, SMW I

$$50888 \overline{) 47891}$$

149533 WC-08, SNW

### 5.3

50888/47891

49534 WG-08, 5 MW, I

50888/47891

9.

49534 WG-08, S11W 4

50888 | 47891

3.

50888 WG-05 SMH I

9.

50888 WG-05. S11H

3.

9A014 WJG-10.5MM

9.

49532

MANPOWER PROFILE SAS

NAME: BILL BIGH

DATE: 5-8-89

SHEET 2 OF 2

RCC: MANPSA

| SK CODE | DESCRIPTN QTR | QUANTITY AVAILABLE |      |      | HOLIDAY |      |      | HOURS (PER SHIFT) |      |      | ALTERNATE |     |       |
|---------|---------------|--------------------|------|------|---------|------|------|-------------------|------|------|-----------|-----|-------|
|         |               | WEEK               | WEEK | WEEK | WEEK    | WEEK | WEEK | WEEK              | WEEK | WEEK | CD        | LVL | NOTES |
| 1       | 2             | 3                  | 1    | 2    | 3       | 1    | 2    | 3                 | 1    | 2    | 3         | 1   | 2     |

✓ 9A014 WG-10, SMM 4

5.6

49533





SHEET 2 OF 2

NOTES

| NAME <u>BILL RICH</u> |                | WORKLOAD PROFILE |        | SAS                 |                    | DATE <u>5-5-89</u> |    | RCC MANPSA |    | STD       |         |
|-----------------------|----------------|------------------|--------|---------------------|--------------------|--------------------|----|------------|----|-----------|---------|
| ITEM CODE             | AIRCRAFT MODEL | WCD              | ALC WR | WKL FLOAT TYP STOCK | INDUCTIONS PER QTR | Q1                 | Q2 | Q3         | Q4 | NO OF FPS | MAX WIP |
| ✓ PCN 51454A          | C-141          | MBF30B           |        | 4                   | -                  | -                  | -  | -          | -  | -         | -       |
| ✓ PCN 51454A          | C-141          | MBG30B           |        | 4                   | -                  | -                  | -  | -          | -  | -         | -       |
| ✓ PCN 51454A          | C-141          | MBH30B           |        | 4                   | -                  | -                  | -  | -          | -  | -         | -       |
| ✓ PCN 51454A          | C-141          | MBI30B           |        | 4                   | -                  | -                  | -  | -          | -  | -         | -       |
| ✓ PCN 51454A          | C-141          | MBJ30B           |        | 4                   | -                  | -                  | -  | -          | -  | -         | -       |
| ✓ PCN 51454A          | C-141          | MBQ30B           |        | 4                   | -                  | -                  | -  | -          | -  | -         | -       |
| ✓ PCN 51454A          | C-141          | MBDA1B           |        | 4                   | -                  | -                  | -  | -          | -  | -         | -       |
| ✓ PCN 51454A          | C-141          | MB030B           |        | 4                   | -                  | 8                  | 9  | 8          | 10 | -         | -       |

502

PETAL DOOR

**DATASET: I7S150ED.ALC.WRMANPSA.WORLKD**

START  
COL

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

C-141 Petal Door  
C/N 51454A/51455A

Operation Profile ✓

Disassembly/Assembly Profile ✓

In/Out

Process Flow

Operation Description

# OPERATION FILE

| NAME <u>BILL RICH ALC</u> DATE <u>4-15-89</u> ICC <u>MANPSA</u> SHEET <u>1</u> OF <u>1</u> |        | WCD <u>ABO30-B</u> WCD DATE <u>88064</u> |                             | MANPOWER       |                  | EQUIPMENT       |      | DATA SOURCE COMMENTS |                 |      |                |                 |      |                                        |
|--------------------------------------------------------------------------------------------|--------|------------------------------------------|-----------------------------|----------------|------------------|-----------------|------|----------------------|-----------------|------|----------------|-----------------|------|----------------------------------------|
| OPERATION NUMBER                                                                           | ICC    | OPERATION DESCRIPTION                    | MANDATORY OCCURRENCE FACTOR | OPERATION TYPE | MANDATORY FLOW % | TIME REQUIRED % | QTY. | SKILL CODE/LEVEL     | TIME REQUIRED % | QTY. | EQUIPMENT CODE | TIME REQUIRED % | QTY. | DATA SOURCE COMMENTS                   |
| 0000                                                                                       | MANPSA | REC                                      | 1.00                        | TRANSIT        | -                | -               | -    | -                    | -               | -    | -              | -               | -    | L. JACKSON (ALTERNATE) 926-4812        |
|                                                                                            |        |                                          |                             | SETUP          | -                | -               | -    | -                    | -               | -    | -              | -               | -    | M. MORRISON (PLANNER)                  |
|                                                                                            |        |                                          |                             | PROCESS        | 1.0              | 0.1             | 1    | 50374                | 0.1             |      |                |                 |      |                                        |
| 010                                                                                        | MANPSA | REV                                      | 1.00                        | TRANSIT        | -                | -               | -    | -                    | -               | -    | -              | -               | -    | T.O. IC - 141B-3 & APPLICABLE DRAWINGS |
|                                                                                            |        |                                          |                             | SETUP          | -                | -               | -    | -                    | -               | -    | -              | -               | -    |                                        |
|                                                                                            |        |                                          |                             | PROCESS        | 1.0              | 1.0             | 1    | 50374                | 1.0             |      |                |                 |      |                                        |
|                                                                                            |        |                                          |                             | TRANSIT        | -                | -               | -    | -                    | -               | -    | -              | -               | -    |                                        |
|                                                                                            |        |                                          |                             | SETUP          | -                | -               | -    | -                    | -               | -    | -              | -               | -    |                                        |
|                                                                                            |        |                                          |                             | PROCESS        | -                | -               | -    | -                    | -               | -    | -              | -               | -    |                                        |
|                                                                                            |        |                                          |                             | TRANSIT        | -                | -               | -    | -                    | -               | -    | -              | -               | -    |                                        |
|                                                                                            |        |                                          |                             | SETUP          | -                | -               | -    | -                    | -               | -    | -              | -               | -    |                                        |
|                                                                                            |        |                                          |                             | PROCESS        | -                | -               | -    | -                    | -               | -    | -              | -               | -    |                                        |
|                                                                                            |        |                                          |                             | TRANSIT        | -                | -               | -    | -                    | -               | -    | -              | -               | -    |                                        |
|                                                                                            |        |                                          |                             | SETUP          | -                | -               | -    | -                    | -               | -    | -              | -               | -    |                                        |
|                                                                                            |        |                                          |                             | PROCESS        | -                | -               | -    | -                    | -               | -    | -              | -               | -    |                                        |
| 9999                                                                                       | MANPSA | SEL                                      | 1.00                        | TRANSIT        | -                | -               | -    | -                    | -               | -    | -              | -               | -    | T. CHERRY (SUPERVISOR) 926-4812        |
|                                                                                            |        |                                          |                             | SETUP          | -                | -               | -    | -                    | -               | -    | -              | -               | -    | L. JACKSON (PLANNER)                   |
|                                                                                            |        |                                          |                             | PROCESS        | 1.0              | 2.0             | 1    | 50374                | 2.0             |      |                |                 |      |                                        |

WCD OPERATIONS LISTED FROM 020 THRU 640 REVISED PER MARKED-UP COMPUTER COPY. BILL RICH 4-15-89

T = TRANSIT  
S = SETUP

C-11, PETAL DOOR

P = PROCESS

NAME BILL RICH OPERATION PROFILE SAS 9:46 TUESDAY, MARCH 28, 1989 64

ITEM CD PCN'51454A~ WCD MB030B WCD MB030B DATE 5-5-89 SHEET 1 OF 20

| OPER NUMB | RCC    | OPER HIST MAND | MAND F | HRS | SKILL CD/LVL | QTY   | % | HRS | EQUIP CODE | QTY | % | HRS | NOTES |
|-----------|--------|----------------|--------|-----|--------------|-------|---|-----|------------|-----|---|-----|-------|
| 20        | MANPSA | INS            | 1.00   | T   | 0            |       |   |     |            |     |   |     |       |
| 20        | MANPSA | INS            |        | S   | 0            |       |   |     |            |     |   |     |       |
| 20        | MANPSA | INS            |        | P   | 0            | 47891 | 1 | 0.5 |            |     |   |     |       |
| 20        | MANPSA | INS            | 1.00   | P   | 0            | 49533 | 1 | 0.5 |            |     |   |     |       |
| 30        | MANPSA | DIS            | 1.00   | T   | 0            |       |   |     |            |     |   |     |       |
| 30        | MANPSA | DIS            |        | S   | 0            |       |   |     |            |     |   |     |       |
| 30        | MANPSA | DIS            |        | P   | 0            | 47891 | 1 | 1.5 |            |     |   |     |       |
| 30        | MANPSA | DIS            | 1.00   | P   | 0            | 49533 | 1 | 1.5 |            |     |   |     |       |
| 40        | MANPSA | DIS            | 0.88   | T   | 0            |       |   |     |            |     |   |     |       |
| 40        | MANPSA | DIS            | 1.00   |     | 0            |       |   |     |            |     |   |     |       |
| 40        | MANPSA | DIS            | 1.00   | S   | 0            |       |   |     |            |     |   |     |       |
| 40        | MANPSA | DIS            |        | P   | 0            | 47891 | 1 | 0.5 |            |     |   |     |       |
| 40        | MANPSA | DIS            |        | P   | 0            | 49533 | 1 | 0.5 |            |     |   |     |       |
| 50        | MANPSA | DIS            | 0.88   | T   | 0            |       |   |     |            |     |   |     |       |
|           |        |                | 1.00   |     |              |       |   |     |            |     |   |     |       |

WCD MB030B





SAS

OPERATION PROFILE

NAME BILL RICH

ITEM CD PCN 51454A

ALC WR

DATE 5-5-89

RCC MANPSA

WCD MB030B WCD DATE 88064

OPER NUMB  
RCC  
MANPSA DIS  
MANPSA DIS  
MANPSA DIS  
MANPSA DIS  
MANPSA PROC  
MANPSA PROC  
MANPSA PROC  
MANPSA PROC  
MANPSA INS  
MANPSA INS  
MANPSA INS  
MANPSA INS  
MANPSA PROC

OPER DESC  
DIS  
DIS  
DIS  
DIS  
PROC  
PROC  
PROC  
PROC  
INS  
INS  
INS  
INS  
PROC

HIST MAND OPER  
OCCR TYPE  
1.0 T  
1.0 S  
P  
P  
T  
S  
P  
P  
T  
S  
P  
P  
T

MAND F HRS  
1.0  
0  
0  
0  
0  
0  
0  
0  
0  
0  
0  
0  
0  
0

SKILL CD/LVL  
19533  
47891  
49533  
47891  
49533  
47891  
49533  
47891  
49533

QTY  
1.0  
2  
2  
2  
2  
2  
2  
1  
1

HRS  
1.0  
12.5  
12.5  
1.3  
1.3  
4.0  
4.0

EQUIP CODE  
1.0  
1.0  
1.0  
1.0  
1.0  
1.0  
1.0  
1.0  
1.0

NOTES

INSPECT HYD. TUBING -  
REPLACES AS REQUIRED.  
TO. IC-141B-3

CLEAN & PREPARE  
FOR INSPECT. FOR  
FRAME ASSY.

SUPPLEMENTAL  
WCD MBH30B

**SAS**

## OPERATION PROFILE

NAME Bill Rich

5-5-89

**RCC MANPSA**

DATE \_\_\_\_\_

ALC WR

NAME **BILL RICH**  
ITEM CD PCN 51454A

WCD MB030B WCDATE 88064

| OPER<br>NUMB | RCC | OPER<br>DESC | HIST<br>OCCR | MAND<br>OCCR | OPER<br>TYPE | MAND<br>F | HRS | SKILL<br>CD/LVL |
|--------------|-----|--------------|--------------|--------------|--------------|-----------|-----|-----------------|
| 00000000     |     |              |              |              |              |           |     |                 |

## NOTES

HRS

QTY

**CODE 17067**

120 MANPSA PROC S

| 120 | MANPSA | PROC | P |       |   |      |
|-----|--------|------|---|-------|---|------|
|     |        |      |   | 47891 | 1 | 0.3  |
|     |        |      |   |       |   | 4325 |
|     |        |      |   |       |   | 1    |
|     |        |      |   |       |   | 0.3  |

| 120 | MANPSA | PROC |   |     |  |
|-----|--------|------|---|-----|--|
| 120 | MANPSA | PROC | 1 | 0.3 |  |

[illegible]

|     |        |      |   |   |    |
|-----|--------|------|---|---|----|
| 130 | MANPSA | PROC | . | S | {. |
| 130 | MANPSA | PROC | . | S | {. |

| 130 | MANPSA | PROC | . | P | ( | . | 1 | . | 0.8 | 4325 | 1 | . | 0.1 |
|-----|--------|------|---|---|---|---|---|---|-----|------|---|---|-----|
| 130 | MANPSA | PROC | . | P | ( | . | 1 | . | 0.8 | 4325 | 1 | . | 0.1 |

| 130 | MANPSA | PROC | 1.0 P | 0.8 |
|-----|--------|------|-------|-----|
| 130 | MANPSA | PROC | 1.0 P | 0.8 |

|     |        |      |      |   |   |    |   |   |   |
|-----|--------|------|------|---|---|----|---|---|---|
| 140 | MANPSA | PROC | 1.00 | . | T | 0. | . | . | . |
|-----|--------|------|------|---|---|----|---|---|---|

|        |      |   |   |     |   |   |   |
|--------|------|---|---|-----|---|---|---|
| MANPSA | PROC | . | S | (.) | . | . | . |
| 140    |      |   |   |     |   |   |   |

|     |        |      |   |   |   |    |       |   |   |     |      |   |   |     |
|-----|--------|------|---|---|---|----|-------|---|---|-----|------|---|---|-----|
| 140 | MANPSA | PROC | . | P | . | C. | 47891 | 2 | . | 0.4 | 4325 | 1 | . | 0.4 |
|-----|--------|------|---|---|---|----|-------|---|---|-----|------|---|---|-----|

| 140 | MANPSA | PROC | . | 10 | P | U | . | 2     | . | 0.4 | . | . |
|-----|--------|------|---|----|---|---|---|-------|---|-----|---|---|
| 140 | MANPSA | PROC | . | 10 | P | U | . | 2     | . | 0.4 | . | . |
|     |        |      |   |    |   |   |   | 49533 |   |     |   |   |

130 MANPSA PROC 1.00 . . . . .





## SAS

## OPERATION PROFILE

| NAME | ITEM CD | PCN  | 51454A | WCD  | MB030B | WCDDATE | 88084  | ALC | WR  | DATE | RCC  | MANPSA | NOTES |
|------|---------|------|--------|------|--------|---------|--------|-----|-----|------|------|--------|-------|
| OPER | NUMB    | RCC  | DESC   | OPER | MAND   | SKILL   | CD/LVL | QTY | %   | HRS  | QTY  | %      | HRS   |
| 210  | MANPSA  | PROC | .      | P    | Q      | 47891   | 2      | .   | 0.8 | 4325 | 1    | .      | 0.8   |
| 210  | MANPSA  | PROC | .      | 10 P | Q      | 49533   | 2      | .   | 0.8 |      | .    | .      | .     |
| 220  | MANPSA  | PROC | 1.00   | .    | T      | Q       |        | .   | .   | .    | .    | .      | .     |
| 220  | MANPSA  | PROC | .      | .    | S      | Q       |        | .   | .   | .    | .    | .      | .     |
| 220  | MANPSA  | PROC | .      | .    | P      | Q       | 47891  | 2   | .   | 0.8  | 4325 | 1      | 0.8   |
| 220  | MANPSA  | PROC | .      | 10 P | Q      | 49533   | 2      | .   | 0.8 |      | .    | .      | .     |
| 230  | MANPSA  | PROC | 1.00   | .    | T      | Q       |        | .   | .   | .    | .    | .      | .     |
| 230  | MANPSA  | PROC | .      | .    | S      | Q       |        | .   | .   | .    | .    | .      | .     |
| 230  | MANPSA  | PROC | .      | .    | P      | Q       | 47891  | 2   | .   | 0.5  | 4325 | 1      | 0.5   |
| 230  | MANPSA  | PROC | .      | 10 P | Q      | 49533   | 2      | .   | 0.5 |      | .    | .      | .     |
| 240  | MANPSA  | PROC | 1.00   | .    | T      | Q       |        | .   | .   | .    | .    | .      | .     |
| 240  | MANPSA  | PROC | .      | .    | S      | Q       |        | .   | .   | .    | .    | .      | .     |
| 240  | MANPSA  | PROC | .      | 10 P | Q      | 47891   | 2      | .   | 0.5 |      | .    | .      | .     |

9:46 TUESDAY, MARCH 28, 1989 71

SHEET 8 OF 20

OPERATION PROFILE SAS

| OPERATION PROFILE  |        |            |           |           |           |        |              |     |   |      |            |               |   |            |  |  |  |  |
|--------------------|--------|------------|-----------|-----------|-----------|--------|--------------|-----|---|------|------------|---------------|---|------------|--|--|--|--|
| NAME               |        | ALC WR     |           |           |           |        |              |     |   |      |            | DATE          |   | RCC MANPSA |  |  |  |  |
| ITEM CD PCN 51454A |        | WCD MB030B |           |           |           |        |              |     |   |      |            | WCDDATE 88064 |   |            |  |  |  |  |
| OPER NUMB          | RCC    | OPER DESC  | HIST OCCR | MAND TYPE | OPER TYPE | MAND F | SKILL CD/LVL | QTY | % | HRS  | EQUIP CODE | QTY           | % | HRS        |  |  |  |  |
| 240                | MANPSA | PROC       |           | 1.0       | P         | 0      | 49533        | 2   |   | 0.5  | 4325       | 1             |   | 0.5        |  |  |  |  |
| 250                | MANPSA | PROC       |           | 1.00      | T         | 0      |              |     |   |      |            |               |   |            |  |  |  |  |
| 250                | MANPSA | PROC       |           |           | S         | 0      |              |     |   |      |            |               |   |            |  |  |  |  |
| 250                | MANPSA | PROC       |           |           | P         | 0      | 47891        | 2   |   | 0.3  |            |               |   |            |  |  |  |  |
| 250                | MANPSA | PROC       |           | 1.0       | P         | 0      | 49533        | 2   |   | 0.3  | 4325       | 1             |   | 0.3        |  |  |  |  |
| 260                | MANPSA | DIS        |           | 0.95      | T         | 0      |              |     |   |      |            |               |   |            |  |  |  |  |
| 260                | MANPSA | DIS        |           | 1.00      | S         | 0      |              |     |   |      |            |               |   |            |  |  |  |  |
| 260                | MANPSA | DIS        |           |           | P         | 0      | 47891        | 1   |   | 1.5  |            |               |   |            |  |  |  |  |
| 260                | MANPSA | DIS        |           |           | P         | 0      | 49533        | 1   |   | 1.5  |            |               |   |            |  |  |  |  |
| 270                | MANPSA | PROC       |           | 0.95      | T         | 0      |              |     |   |      |            |               |   |            |  |  |  |  |
| 270                | MANPSA | PROC       |           | 1.00      | S         | 0      |              |     |   |      |            |               |   |            |  |  |  |  |
| 270                | MANPSA | PROC       |           | 1.00      | P         | 0      | 47891        | 2   |   | 25.0 |            |               |   |            |  |  |  |  |

SEE  
SUPPLEMENTAL  
WCD  
MBA 30B

SEE  
SUPPLEMENTAL  
WCD  
MBH 30B



OPERATION PROFILE SAS

RCC MANPSA

DATE

ALC WR

NAME

ITEM CD PCN 51454A F WCD MB030B WCD DATE 88064

OPER NOMB RCC OPER HIST MAND OPER MAND SKILL EQUIP  
DESC OCCR TYPE F HRS CD/LVL QTY % HRS CODE

NOTES

QTY

%

HRS

QTY

%

HRS

QTY

%

HRS

QTY

%

HRS

|     |        |      |      |   |    |       |     |      |      |     |     |
|-----|--------|------|------|---|----|-------|-----|------|------|-----|-----|
| 310 | MANPSA | PROC | 1.00 | T | 0. | 0.    | 0.3 | 4325 | 1    | 0.2 |     |
| 310 | MANPSA | PROC | .    | S | 0. | .     | .   | .    | .    | .   |     |
| 310 | MANPSA | PROC | .    | P | 0. | 47891 | 1   | 0.3  | 4325 | 1   | 0.2 |
| 310 | MANPSA | PROC | 1.0  | P | 0. | 49533 | 1   | 0.3  | .    | .   |     |
| 320 | MANPSA | INS  | 1.00 | T | 0. | .     | .   | .    | .    | .   |     |
| 320 | MANPSA | INS  | .    | S | 0. | .     | .   | .    | .    | .   |     |
| 320 | MANPSA | INS  | .    | P | 0. | 47891 | 2   | 16.0 | .    | .   |     |
| 320 | MANPSA | REP  | 1.0  | P | 0. | 49533 | 2   | 16.0 | .    | .   |     |
| 330 | MANPSA | PROC | 1.00 | T | 0. | .     | .   | .    | .    | .   |     |
| 330 | MANPSA | PROC | .    | S | 0. | .     | .   | .    | .    | .   |     |
| 330 | MANPSA | PROC | 0.33 | P | 0. | 47891 | 1   | 16.0 | 4.0  | .   |     |
| 335 | MANPSA | PROC | 1.00 | T | 0. | .     | .   | .    | .    | .   |     |

SEE SUPPLEMENTAL

WCD

MBJ30B

SEE SUPPLEMENTAL  
WCD  
MBD30B  
SEE SUPPLEMENTAL  
USE FOR  
REPAIR  
NEW PART  
ARE USED







OPERATION PROFILE SAS

| NAME | ITEM CD | PCN    | 51454A | ALC  | WR   | WCD  | M8030B | WCDDATE | 88064 | DATE   | QTY  | % | HRS | EQUIP | CODE | QTY | % | HRS | NOTES |
|------|---------|--------|--------|------|------|------|--------|---------|-------|--------|------|---|-----|-------|------|-----|---|-----|-------|
| OPER | RCC     | MANPSA | INS    | OPER | HIST | MAND | OPER   | MAND    | SKILL | CD/LVL | QTY  | % | HRS | CODE  |      |     |   |     |       |
| 390  | MANPSA  | INS    | .      | .    | P    | 0    | 47891  | 2       | .     | 1.0    | .    | . | .   | .     | .    | .   | . | .   | .     |
| 390  | MANPSA  | INS    | .      | 1.0  | P    | 0    | 49533  | 2       | .     | 1.0    | .    | . | .   | .     | .    | .   | . | .   | .     |
| 400  | MANPSA  | ASSY   | 1.00   | .    | T    | 0    | .      | .       | .     | .      | .    | . | .   | .     | .    | .   | . | .   | .     |
| 400  | MANPSA  | ASSY   | .      | .    | S    | 0    | .      | .       | .     | .      | .    | . | .   | .     | .    | .   | . | .   | .     |
| 400  | MANPSA  | ASSY   | .      | .    | P    | 0    | 47891  | 2       | .     | 3.0    | 4325 | 1 | .   | 3.0   | .    | .   | . | .   | .     |
| 400  | MANPSA  | ASSY   | .      | 1.0  | P    | 0    | 49533  | 2       | .     | 3.0    | .    | . | .   | .     | .    | .   | . | .   | .     |
| 410  | MANPSA  | INS    | 1.00   | .    | T    | 0    | .      | .       | .     | .      | .    | . | .   | .     | .    | .   | . | .   | .     |
| 410  | MANPSA  | INS    | .      | .    | S    | 0    | .      | .       | .     | .      | .    | . | .   | .     | .    | .   | . | .   | .     |
| 410  | MANPSA  | INS    | .      | .    | P    | 0    | 47891  | 2       | .     | 1.0    | 4325 | 1 | .   | 0.5   | .    | .   | . | .   | .     |
| 410  | MANPSA  | INS    | .      | 1.0  | P    | 0    | 49533  | 2       | .     | 1.0    | .    | . | .   | .     | .    | .   | . | .   | .     |
| 420  | MANPSA  | INS    | 1.00   | .    | T    | 0    | .      | .       | .     | .      | .    | . | .   | .     | .    | .   | . | .   | .     |
| 420  | MANPSA  | INS    | .      | .    | S    | 0    | .      | .       | .     | .      | .    | . | .   | .     | .    | .   | . | .   | .     |
| 420  | MANPSA  | INS    | .      | .    | P    | 0    | 47891  | 2       | .     | 1.0    | 4325 | 1 | .   | 3.0   | .    | .   | . | .   | .     |

## OPERATION PROFILE SAS

| NAME | ITEM CD | PCN  | 51454A | ALC  | WR   | WCD   | NB030B | WCDDATE | 88064 | DATE | QTY  | % | HRS | EQUIP | CODE | QTY | % | HRS | NOTES |
|------|---------|------|--------|------|------|-------|--------|---------|-------|------|------|---|-----|-------|------|-----|---|-----|-------|
| OPER | RCC     | DESC | OPER   | HIST | MAND | MAND  | SKILL  | CD/LVL  | QTY   | %    | HRS  |   |     |       |      |     |   |     |       |
| NUMB |         |      |        | OCGR | TYPE | F     | HRS    |         |       |      |      |   |     |       |      |     |   |     |       |
| 420  | MANPSA  | INS  |        | 1.0  | P    | 0.    | 49533  | 2       |       | 1.0  |      |   |     |       |      |     |   |     |       |
| 430  | MANPSA  | ASSY | 0.96   |      | T    | 0.    |        |         |       |      |      |   |     |       |      |     |   |     |       |
| 430  | MANPSA  | ASSY | 1.00   |      | S    | 0.    |        |         |       |      |      |   |     |       |      |     |   |     |       |
| 430  | MANPSA  | ASSY |        |      | P    | 0.    | 47891  | 1       |       | 2.0  | 4325 | 1 |     | 3.5   |      |     |   |     |       |
| 430  | MANPSA  | ASSY | 1.0    | P    | 0.   | 49533 | 1      |         | 2.0   |      |      |   |     |       |      |     |   |     |       |
| 440  | MANPSA  | PROC | 1.00   |      | T    | 0.    |        |         |       |      |      |   |     |       |      |     |   |     |       |
| 440  | MANPSA  | PROC |        |      | S    | 0.    |        |         |       |      |      |   |     |       |      |     |   |     |       |
| 440  | MANPSA  | PROC |        |      | P    | 0.    | 47891  | 1       |       | 1.5  | 4325 | 1 |     | 1.5   |      |     |   |     |       |
| 440  | MANPSA  | PROC | 1.0    | P    | 0.   | 49533 | 1      |         | 1.5   |      |      |   |     |       |      |     |   |     |       |
| 450  | MANPSA  | PROC | 0.96   |      | T    | 0.    |        |         |       |      |      |   |     |       |      |     |   |     |       |
| 450  | MANPSA  | PROC | 1.00   |      | S    | 0.    |        |         |       |      |      |   |     |       |      |     |   |     |       |
| 450  | MANPSA  | PROC | 1.0    | P    | 0.   | 47891 | 1      |         | 2.0   | 4325 | 1    |   | 0.2 |       |      |     |   |     |       |

| OPERATION PROFILE  |     |            |      |                |      |            |        |     |   |      |       |      |     |   | SAS |  |
|--------------------|-----|------------|------|----------------|------|------------|--------|-----|---|------|-------|------|-----|---|-----|--|
| NAME               |     | ALC WR     |      | DATE           |      | RCC MANPSA |        |     |   |      |       |      |     |   |     |  |
| ITEM CD PCN 51454A |     | WCD MB030B |      | WCD DATE 88064 |      |            |        |     |   |      |       |      |     |   |     |  |
| OPER               | RCC | MANPSA     | PROC | OPER           | HIST | MAND       | SKILL  | QTY | % | HRS  | EQUIP | CODE | QTY | % | HRS |  |
| NUMB               |     |            |      | TYPE           | OCRR | F          | CD/LVL |     |   |      |       |      |     |   |     |  |
| 450                |     | MANPSA     | PROC | P              |      | 0          | 49533  | 1   |   | 2.0  |       |      |     |   |     |  |
| 460                |     | MANPSA     | ASSY | T              |      | 0          |        |     |   |      |       |      |     |   |     |  |
| 460                |     | MANPSA     | ASSY | S              |      | 0          |        |     |   |      |       |      |     |   |     |  |
| 460                |     | MANPSA     | ASSY | P              |      | 0          | 47891  | 1   |   | 2.0  |       |      |     |   |     |  |
| 460                |     | MANPSA     | ASSY | P              |      | 0          | 49533  | 1   |   | 2.0  |       |      |     |   |     |  |
| 470                |     | MANPSA     | PROC | T              |      | 0          |        |     |   |      |       |      |     |   |     |  |
| 470                |     | MANPSA     | PROC | S              |      | 0          |        |     |   |      |       |      |     |   |     |  |
| 470                |     | MANPSA     | PROC | P              |      | 0          | 47891  | 1   |   | 4.0  |       |      |     |   |     |  |
| 480                |     | MANPSA     | ASSY | T              |      | 0          |        |     |   |      |       |      |     |   |     |  |
| 480                |     | MANPSA     | ASSY | S              |      | 0          |        |     |   |      |       |      |     |   |     |  |
| 480                |     | MANPSA     | ASSY | P              |      | 0          | 47891  | 1   |   | 2.0  |       |      |     |   |     |  |
| 480                |     | MANPSA     | ASSY | P              |      | 0          | 49533  | 1   |   | 2.0  |       |      |     |   |     |  |
| 490                |     | MANPPC     | INST | T              |      | 0          | 47891  | 1   |   | 10.0 |       |      |     |   |     |  |

**OPERATION PROFILE**

NAME \_\_\_\_\_

ITEM CD PCN 51454A :

**ALC WR**

DATE \_\_\_\_\_

WCD MB030B WCDDATE 88064

**OPER**

**OPER**

## HIST MAND OPER

**MAND** **SKILL**

4  
3  
2  
1

436

**MAND SKTIN**

|     |        |      |      |     |   |     |       |   |     |
|-----|--------|------|------|-----|---|-----|-------|---|-----|
| 490 | MANPPC | INST | .    | .   | S | 0.  | .     | . | .   |
| 490 | MANPPC | INST | .    | .   | P | 200 | .     | . | .   |
| 500 | MANPSA | INS  | 1.00 | .   | T | 0.  | .     | . | .   |
| 500 | MANPSA | INS  | .    | .   | S | 0.  | .     | . | .   |
| 500 | MANPSA | INS  | .    | .   | P | 0.  | 47891 | 1 | 1.0 |
| 500 | MANPSA | INS  | .    | 1.0 | P | 0.  | 49533 | 1 | 1.0 |
| 510 | MANPSA | ASSY | 0.95 | .   | T | 0.  | .     | . | .   |
| 510 | MANPSA | ASSY | 1.00 | .   | S | 0.  | .     | . | .   |
| 510 | MANPSA | ASSY | .    | .   | P | 0.  | 47891 | 1 | 1.0 |
| 510 | MANPSA | ASSY | .    | 1.0 | P | 0.  | 49533 | 1 | 1.0 |
| 520 | MANPSA | INS  | 1.00 | .   | T | 0.  | .     | . | .   |
| 520 | MANPSA | INS  | .    | .   | S | 0.  | .     | . | .   |

| NAME               |     | OPERATION PROFILE |      |      |      |            |      |                |       |            |     |   |     |       | SAS  |     |   |     |
|--------------------|-----|-------------------|------|------|------|------------|------|----------------|-------|------------|-----|---|-----|-------|------|-----|---|-----|
| ITEM CD PCN 31454A |     | ALC WR            |      | DATE |      | WCD MB030B |      | WCD DATE 88064 |       | RCC MANPSA |     |   |     |       |      |     |   |     |
| OPER               | RCC | MANPSA            | INS  | OPER | HIST | MAND       | OPER | MAND           | SKILL | CD/LVL     | QTY | % | HRS | EQUIP | CODE | QTY | % | HRS |
| 520                |     | MANPSA            | INS  |      |      | 1.0        | P    |                | 0     | 47891      | 1   |   | 1.0 |       |      |     |   |     |
| 530                |     | MANPSA            | REP  |      | 0.84 |            | T    |                | 0     |            |     |   |     |       |      |     |   |     |
| 530                |     | MANPSA            | REP  |      |      |            | S    |                | 0     |            |     |   |     |       |      |     |   |     |
| 530                |     | MANPSA            | REP  |      |      |            | P    |                | 0     | 47891      | 1   |   | 2.3 |       |      |     |   |     |
| 530                |     | MANPSA            | REP  |      |      |            | P    |                | 0     | 49533      | 1   |   | 2.3 |       |      |     |   |     |
| 540                |     | MANPSA            | INS  |      | 1.00 |            | T    |                | 0     |            |     |   |     |       |      |     |   |     |
| 540                |     | MANPSA            | INS  |      |      |            | S    |                | 0     |            |     |   |     |       |      |     |   |     |
| 540                |     | MANPSA            | INS  |      |      |            | P    |                | 0     | 47891      | 1   |   | 1.0 |       |      |     |   |     |
| 540                |     | MANPSA            | INS  |      |      | 1.0        | P    |                | 0     | 49533      | 1   |   | 1.0 |       |      |     |   |     |
| 550                |     | MANPSA            | ASSY |      | 1.00 |            | T    |                | 0     |            |     |   |     |       |      |     |   |     |
| 550                |     | MANPSA            | ASSY |      |      |            | S    |                | 0     |            |     |   |     |       |      |     |   |     |
| 550                |     | MANPSA            | ASSY |      |      |            | P    |                | 0     | 47891      | 1   |   | 2.0 |       |      |     |   |     |
| 550                |     | MANPSA            | ASSY |      |      | 1.0        | P    |                | 0     | 49533      | 1   |   | 2.0 |       |      |     |   |     |





OPERATION PROFILE SAS

NAME  
ITEM CD PCN 51454A

ALC WR  
WCD MB030B WCD DATE 88064

OPER NMB  
590  
600  
600  
610  
610  
610  
620  
620  
620  
630

MANPSA PROC  
MANPSA PROC  
MANPSA PROC  
MANPDC PNT  
MANPDC PNT  
MANPSA ASSY  
MANPSA ASSY  
MANPSA ASSY  
MANPSA ASSY  
MANPSA INS

HIST MAND OPER  
OCGR TYPE  
S  
P  
P  
T  
S  
P  
T  
P  
T

MAND F HRS  
0  
0  
0  
3.0  
0  
800  
3.0  
1.00  
1.00  
0  
0  
0.88  
1.00  
1.0  
0.88

SKILL CD/LVL  
QTY  
1  
1  
3  
3  
3  
3  
1  
1  
1  
1

% HRS  
1.3  
1.3  
2.0  
2.0  
2.0  
2.0  
8.0  
1.0  
1.0  
1.0

EQUIP CODE  
QTY  
1  
1  
3  
3  
3  
3  
1  
1  
1  
1

% HRS  
1.3  
1.3  
2.0  
2.0  
2.0  
2.0  
8.0  
1.0  
1.0  
1.0

NOTES  
BCLD 180

| OPERATION PROFILE |         |     |        |      |      |        |         |        |       |
|-------------------|---------|-----|--------|------|------|--------|---------|--------|-------|
| SAS               |         |     |        |      |      |        |         |        |       |
| NAME              | ITEM CD | PCN | 51454A | 11   | WCD  | MB030B | WCDDATE | 88064  | DATE  |
| OPER              | NUMB    | RCC | DESC   | HIST | MAND | OPER   | MAND    | SKILL  | EQUIP |
|                   |         |     |        | OCCR | TYPE | F      | HRS     | CD/LVL | CODE  |
|                   |         |     |        |      |      |        |         |        |       |
| 630               | MANPSA  | INS |        |      | S    | 0      |         |        |       |
| 630               | MANPSA  | INS |        |      | P    | 0      | 47891   | 1      | 0.3   |
| 630               | MANPSA  | INS |        | 10   | P    | 0      | 49533   | 1      | 0.3   |
| 640               | MANPSA  | INS | 0.84   |      | T    | 0      |         |        |       |
| 640               | MANPSA  | INS |        |      | S    | 0      |         |        |       |
| 640               | MANPSA  | INS |        | 10   | P    | 0      | 47891   | 1      | 0.3   |

(SEE PAGE 1 OF 1)

OPERATION PROFILE SAS

| AUTOMATION PROFILE |         |        |           |      |      |      |      |        |         |       |            |       | RCC MANPSA |     |     |
|--------------------|---------|--------|-----------|------|------|------|------|--------|---------|-------|------------|-------|------------|-----|-----|
| NAME               | ITEM CD | PCN    | 51454A    | ALC  | WR   | DATE | WCD  | MBC30B | WCDDATE | 88064 | EQUIP CODE | QTY   | %          | HRS |     |
| OPER NUMB          | RCC     | MANPCC | OPER DESC | HIST | MAND | OPER | MAND | TYPE   | F       | HRS   | CD/LVL     | SKILL | QTY        | %   | HRS |
| 10                 | MANPCC  |        |           |      |      |      |      | T      | 0.      |       |            |       |            |     |     |
| 10                 | MANPCC  |        |           | 1.0  | S    |      |      |        | 0.      |       |            |       |            |     |     |
| 10                 | MANPCC  |        |           |      |      |      |      | P      | 0.      |       |            |       |            |     |     |
| 20                 | MANPCC  |        |           |      |      |      |      | T      | 0.      |       |            |       |            |     |     |
| 20                 | MANPCC  |        |           | 1.0  | S    |      |      |        | 0.      |       |            |       |            |     |     |
| 20                 | MANPCC  |        |           |      |      |      |      | P      | 0.      |       |            |       |            |     |     |
| 30                 | MANPCC  |        |           |      |      |      |      | T      | 0.      |       |            |       |            |     |     |
| 30                 | MANPCC  |        |           | 1.0  | S    |      |      |        | 0.      |       |            |       |            |     |     |
| 30                 | MANPCC  |        |           |      |      |      |      | P      | 0.      |       |            |       |            |     |     |

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SHEET \_\_\_\_ OF \_\_\_\_

## SAS

## OPERATION PROFILE

DATE \_\_\_\_\_

ALC WR \_\_\_\_\_

F WCD MBH30B WCD DATE 88064

NAME \_\_\_\_\_  
ITEM CD PCN 51454A

| OPER<br>NUMB | RCC    | OPER<br>DESC | HIST<br>OCCR | MAND<br>TYPE | MAND<br>F | SKILL<br>CD/LVL | QTY | % | HRS | EQUIP<br>CODE | QTY | % | HRS | NOTES |
|--------------|--------|--------------|--------------|--------------|-----------|-----------------|-----|---|-----|---------------|-----|---|-----|-------|
| 35           | MANPSA | PROC         | .            | S            | O.        |                 | .   | . | .   | .             | .   | . | .   | .     |
| 35           | MANPSA | PROC         | 1.0          | P            | O.        | 47891           | 1   | . | 0.1 |               | .   | . | .   |       |
| 35           | MANPSA | PROC         | .            | P            | O         | 49533           | 1   | . | 0.1 |               | .   | . | .   |       |
| 40           | MANPSA | INS          | 1.00         | T            | O.        |                 | .   | . | .   |               | .   | . | .   |       |
| 40           | MANPSA | INS          | 1.0          | S            | O.        |                 | .   | . | .   |               | .   | . | .   |       |
| 40           | MANPSA | INS          | .            | P            | O         | 47891           | 1   | . | 0.1 |               | .   | . | .   |       |
| 40           | MANPSA | INS          | .            | P            | O         | 49533           | 1   | . | 0.1 |               | .   | . | .   |       |
| 50           | MANPSA | PROC         | 1.00         | T            | O.        |                 | .   | . | .   |               | .   | . | .   |       |
| 50           | MANPSA | PROC         | 1.0          | S            | O.        |                 | .   | . | .   |               | .   | . | .   |       |
| 50           | MANPSA | PROC         | .            | P            | O.        | 47891           | 2   | . | 9.0 |               | .   | . | .   |       |
| 50           | MANPSA | PROC         | .            | P            | O.        | 49533           | 2   | . | 9.0 |               | .   | . | .   |       |
| 55           | MANPSA | PROC         | 1.00         | T            | O.        |                 | .   | . | .   |               | .   | . | .   |       |

| OPERATION PROFILE |     |                       |      |        |      |      |      |            |        | SAS           |   | RCC MANPSA |     |   |     |
|-------------------|-----|-----------------------|------|--------|------|------|------|------------|--------|---------------|---|------------|-----|---|-----|
| NAME              |     | ITEM CD PCN '51454A P |      | ALC WR |      | DATE |      | WCD MBH30B |        | WCDDATE 88064 |   | EQUIP CODE |     |   |     |
| OPER NUNB         | RCC | MANPSA                | PROC | HIST   | MAND | OPER | MAND | SKILL      | CD/LVL | QTY           | % | HRS        | QTY | % | HRS |
| 55                |     |                       |      | 1.0    | S    | 0    |      |            |        |               |   |            |     |   |     |
| 55                |     |                       |      | P      |      | 0    |      | 47891      |        | 2             |   | 5.0        |     |   |     |
| 55                |     |                       |      | P      |      | 0    |      | 49533      |        | 2             |   | 5.0        |     |   |     |
| 60                |     |                       |      | 0.83   | T    | 0    |      |            |        |               |   |            |     |   |     |
| 60                |     |                       |      | .83    | S    | 0    |      |            |        |               |   |            |     |   |     |
| 60                |     |                       |      | P      |      | 0    |      | 47891      |        | 1             |   | 2.0        |     |   |     |
| 60                |     |                       |      | P      |      | 0    |      | 49533      |        | 1             |   | 2.0        |     |   |     |
| 70                |     |                       |      | 1.00   | T    | 0    |      |            |        |               |   |            |     |   |     |
| 70                |     |                       |      | 1.0    | S    | 0    |      |            |        |               |   |            |     |   |     |
| 70                |     |                       |      | P      |      | 0    |      | 47891      |        | 1             |   | 0.8        |     |   |     |
| 70                |     |                       |      | P      |      | 0    |      | 49533      |        | 1             |   | 0.8        |     |   |     |

OPERATION PROFILE SAS

SHEET 1 OF 1

| NAME | ITEM CD | PCN  | 51454A7 | ALC  | WR   | WCDD   | MBA30B | WCDDATE | 88064 | DATE | QTY | % | HRS | EQUIP | CODE | QTY | % | HRS | NOTES |
|------|---------|------|---------|------|------|--------|--------|---------|-------|------|-----|---|-----|-------|------|-----|---|-----|-------|
| OPER | NUMB    | RCC  | MANPDA  | 115P | 1.0  | T      | 1.0    | 119533  | 1     | 0.5  |     |   |     |       |      |     |   |     |       |
| 10   | MANPDA  | DEP  | 1.0     | S    | 0.   |        |        |         |       |      |     |   |     |       |      |     |   |     |       |
| 10   | MANPDA  | DEP  | 1.0     | P    | 10.0 |        |        |         |       |      |     |   |     |       |      |     |   |     |       |
| 20   | MANPDA  | INSR | 1.0     | T    | 0.   |        |        |         |       |      |     |   |     |       |      |     |   |     |       |
| 20   | MANPDA  | INSR | 1.0     | S    | 0.   |        |        |         |       |      |     |   |     |       |      |     |   |     |       |
| 20   | MANPDA  | INSR | 1.0     | P    | 11.0 |        |        |         |       |      |     |   |     |       |      |     |   |     |       |
| 30   | MANPSA  | REP  | 1.0     | T    | 1.0  | 119533 | 1      | 0.5     |       |      |     |   |     |       |      |     |   |     |       |
| 30   | MANPSA  | REP  | 1.0     | S    | 0.   |        |        |         |       |      |     |   |     |       |      |     |   |     |       |
| 30   | MANPSA  | REP  | 1.0     | P    | 0.   | 47891  | 1      | 0.8     |       |      |     |   |     |       |      |     |   |     |       |
| 30   | MANPSA  | REP  | 1.0     | P    | 0.   | 49533  | 1      | 0.8     |       |      |     |   |     |       |      |     |   |     |       |
| 40   | MANPSA  | PROC | 1.0     | T    | 0.   |        |        |         |       |      |     |   |     |       |      |     |   |     |       |
| 40   | MANPSA  | PROC | 1.0     | S    | 0.   |        |        |         |       |      |     |   |     |       |      |     |   |     |       |
| 40   | MANPSA  | PROC | 1.0     | P    | 0.   | 47891  | 1      | 0.8     |       |      |     |   |     |       |      |     |   |     |       |

BLOG 142





[illegible]

| OPERATION PROFILE              |        |      |      |   |   |       |   |     |  | SAS |  |
|--------------------------------|--------|------|------|---|---|-------|---|-----|--|-----|--|
| NAME                           |        |      |      |   |   |       |   |     |  |     |  |
| ITEM CD PCN 51454A             |        |      |      |   |   |       |   |     |  |     |  |
| OPER NUMB                      |        |      |      |   |   |       |   |     |  |     |  |
| RCC                            |        |      |      |   |   |       |   |     |  |     |  |
| OPER HIST MAND OPER MAND SKILL |        |      |      |   |   |       |   |     |  |     |  |
| DESC OCCR TYPE F HRS CD/LVL    |        |      |      |   |   |       |   |     |  |     |  |
| QTY % HRS                      |        |      |      |   |   |       |   |     |  |     |  |
| EQUIP CODE                     |        |      |      |   |   |       |   |     |  |     |  |
| QTY % HRS                      |        |      |      |   |   |       |   |     |  |     |  |
| NOTES                          |        |      |      |   |   |       |   |     |  |     |  |
| 40                             | MANPSA | 10.1 | P    | 0 |   |       |   |     |  |     |  |
| 50                             | MANPSA | REP  | 1.00 | T | 0 |       |   |     |  |     |  |
| 50                             | MANPSA | REP  | 1.0  | S | 0 |       |   |     |  |     |  |
| 50                             | MANPSA | REP  |      | P | 0 | 47891 | 2 | 5.7 |  |     |  |
| 50                             | MANPSA | REP  |      | P | 0 | 49533 | 2 | 5.7 |  |     |  |
| 60                             | MANPSA | REP  | 1.00 | T | 0 |       |   |     |  |     |  |
| 60                             | MANPSA | REP  | 1.0  | S | 0 |       |   |     |  |     |  |
| 60                             | MANPSA | REP  |      | P | 0 | 47891 | 2 | 2.5 |  |     |  |
| 60                             | MANPSA | REP  |      | P | 0 | 49533 | 2 | 2.5 |  |     |  |
| 70                             | MANPSA | INS  | 1.00 | T | 0 |       |   |     |  |     |  |
| 70                             | MANPSA | INS  | 1.0  | S | 0 |       |   |     |  |     |  |
| 70                             | MANPSA | INS  |      | P | 0 | 47891 | 2 | 2.5 |  |     |  |



| NAME               |        | OPERATION PROFILE            |             |           |       |              |     |      |     | SAS        |
|--------------------|--------|------------------------------|-------------|-----------|-------|--------------|-----|------|-----|------------|
|                    |        | ALC WR                       |             |           |       |              |     | DATE |     |            |
| ITEM CD PCN 51454A |        | F WCD MBJ30B A WCDDATE 88064 |             |           |       |              |     |      |     | RCC MANPSA |
| OPER NUMB          | RCC    | OPER DESC                    | HIST OCCR   | MAND TYPE | F HRS | SKILL CD/LVL | QTY | %    | HRS | EQUIP CODE |
| 10                 | MANPSA | INS                          | 1.00        | T         | 0     |              |     |      |     |            |
| 10                 | MANPSA | INS                          | .           | S         | 0.    |              |     |      |     |            |
| 10                 | MANPSA | INS                          | <i>1.0</i>  | P         | 0.    | 47891        | 1   |      | 1.0 |            |
| 10                 | MANPSA | INS                          | .           | P         | 0.    | 49533        | 1   |      | 1.0 |            |
| 20                 | MANPSA | REP                          | 0.67        | T         | 0.    |              |     |      |     |            |
| 20                 | MANPSA | REP                          | <i>0.67</i> | S         | 0.    |              |     |      |     |            |
| 20                 | MANPSA | REP                          | .           | P         | 0.    | 47891        | 1   |      | 8.0 |            |
| 20                 | MANPSA | REP                          | .           | P         | 0.    | 49533        | 1   |      | 8.0 |            |
| 30                 | MANPSA | PROC                         | 1.00        | T         | 0.    |              |     |      |     |            |
| 30                 | MANPSA | PROC                         | <i>1.00</i> | S         | 0.    |              |     |      |     |            |
| 30                 | MANPSA | PROC                         | .           | P         | 0.    | 47891        | 2   |      | 8.0 |            |
| 30                 | MANPSA | PROC                         | .           | P         | 0.    | 49533        | 2   |      | 8.0 |            |
| 40                 | MANPSA | PROC                         | 1.00        | T         | 0.    |              |     |      |     |            |

SHEET \_\_\_\_ OF \_\_\_\_

SAS

OPERATION PROFILE

DATE

ALC WR

WCDDATE 88064

NAME  
ITEM CD PCN 51454A

WCD MBJ30B

OPER NUMB  
RCC  
OPER DESC  
HIST MAND  
OCCR TYPE  
F HRS  
MAND  
SKILL  
CD/LVL

EQUIP  
CODE

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OPERATION PROFILE SAS

SHEET \_\_\_ OF \_\_\_

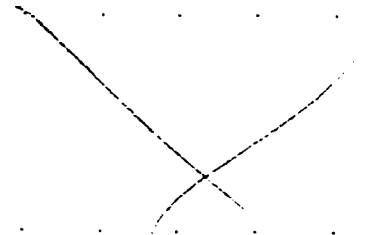
| NAME    | _____  |        | ALC WR |        | DATE    |       | _____ |     | RCC MANPSA |       |       |      |     |   |     |
|---------|--------|--------|--------|--------|---------|-------|-------|-----|------------|-------|-------|------|-----|---|-----|
| ITEM CD | PCN    | 51454A | WCD    | MBD30B | WCDDATE | 88064 |       |     |            |       |       |      |     |   |     |
| OPER    | RCC    | OPER   | HIST   | MAND   | OCRR    | TYPE  | F     | HRS | CD/LVL     | SKILL | EQUIP | CODE | QTY | % | HRS |
| 50      | MANPSA | PROC   | .      | .      | S       | .     | 0     | .   | .          | .     | .     | .    | .   | . | .   |
| 50      | MANPSA | PROC   | .      | .      | P       | .     | 0     | .   | 47891      | 1     | .     | 4.8  | .   | . | .   |

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0  
47891  
4.8



OPERATION PROFILE SAS

| NAME | ITEM CD | PCN    | 51454A | OPER | DESC | HIST | MAND | OPER | MAND | SKILL | CD/LVL | QTY | % | HRS | EQUIP | CODE | QTY | % | HRS | NOTES |
|------|---------|--------|--------|------|------|------|------|------|------|-------|--------|-----|---|-----|-------|------|-----|---|-----|-------|
|      | 10      | MANPDA |        |      |      |      |      |      |      |       |        |     |   |     |       |      |     |   |     |       |
|      | 10      | MANPDA |        |      |      |      |      |      |      |       |        |     |   |     |       |      |     |   |     |       |
|      | 10      | MANPDA |        |      |      |      |      |      |      |       |        |     |   |     |       |      |     |   |     |       |
|      | 20      | MANPDA |        |      |      |      |      |      |      |       |        |     |   |     |       |      |     |   |     |       |
|      | 20      | MANPDA |        |      |      |      |      |      |      |       |        |     |   |     |       |      |     |   |     |       |
|      | 20      | MANPDA |        |      |      |      |      |      |      |       |        |     |   |     |       |      |     |   |     |       |
|      | 30      | MANPDA |        |      |      |      |      |      |      |       |        |     |   |     |       |      |     |   |     |       |
|      | 30      | MANPDA |        |      |      |      |      |      |      |       |        |     |   |     |       |      |     |   |     |       |
|      | 30      | MANPDA |        |      |      |      |      |      |      |       |        |     |   |     |       |      |     |   |     |       |
|      | 40      | MANPSA | PROC   |      |      |      |      |      |      |       |        |     |   |     |       |      |     |   |     |       |
|      | 40      | MANPSA | PROC   |      |      |      |      |      |      |       |        |     |   |     |       |      |     |   |     |       |
|      | 40      | MANPSA | PROC   |      |      |      |      |      |      |       |        |     |   |     |       |      |     |   |     |       |
|      | 50      | MANPDA |        |      |      |      |      |      |      |       |        |     |   |     |       |      |     |   |     |       |



OPERATION PROFILE SAS

SHEET \_\_\_ OF \_\_\_

| NAME | ITEM CD | PCN | 51454A | ALC  | WR   | WCD  | MBF30B | WCDDATE | 88064 | DATE   | RCC | MANPSA | QTY | %     | HRS  | NOTES |
|------|---------|-----|--------|------|------|------|--------|---------|-------|--------|-----|--------|-----|-------|------|-------|
| OPER | NUMB    | RCC | DESC   | OPER | HIST | MAND | OPER   | MAND    | SKILL | CD/LVL | QTY | %      | HRS | EQUIP | CODE |       |
| 50   | MANPDA  |     |        |      |      |      |        |         |       |        |     |        |     |       |      |       |
| 50   | MANPDA  |     |        |      |      |      |        |         |       |        |     |        |     |       |      |       |

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SHEET \_\_\_\_ OF \_\_\_\_

SAS

OPERATION PROFILE

RCC MANPSA

DATE

ALC WR

ITEM CD PCN 51454A

WCD MBG30B WCDDATE 88064

NOTES

QTY % HRS

EQUIP CODE

DATE

QTY % HRS

SKILL CD/LVL

MAND F HRS

OPER TYPE

HIST OCCR

DESC

OPER

NUMB

QTY % HRS

EQUIP CODE

DATE

QTY % HRS

SKILL CD/LVL

MAND F HRS

OPER TYPE

HIST OCCR

DESC

OPER

NUMB

10

MANPSB

QTY % HRS

EQUIP CODE

DATE

QTY % HRS

SKILL CD/LVL

MAND F HRS

OPER TYPE

HIST OCCR

DESC

OPER

NUMB

10

MANPSB

QTY % HRS

EQUIP CODE

DATE

QTY % HRS

SKILL CD/LVL

MAND F HRS

OPER TYPE

HIST OCCR

DESC

OPER

NUMB

10

MANPSB

✓

OPERATION PROFILE SAS

| NAME | ITEM CD | PCN | 51454A | ALC  | WR   | DATE | WCD  | MBE30B | WCD  | DATE  | 88064  | RCC | MANPSA | QTY | %     | HRS  | NOTES |
|------|---------|-----|--------|------|------|------|------|--------|------|-------|--------|-----|--------|-----|-------|------|-------|
| OPER | NUMB    | RCC | DESC   | OPER | HIST | MAND | OCRR | TYPE   | MAND | SKILL | CD/LVL | QTY | %      | HRS | EQUIP | CODE |       |
| 10   | MANPSB  |     |        |      |      |      |      | T      | 0.   |       |        |     |        |     |       |      |       |
| 10   | MANPSB  |     |        |      | 1.0  | S    |      |        | 0.   |       |        |     |        |     |       |      |       |
| 10   | MANPSB  |     |        |      |      |      |      | P      | 0.   |       |        |     |        |     |       |      |       |
| 20   | MANPSB  |     |        |      |      |      |      | T      | 0.   |       |        |     |        |     |       |      |       |
| 20   | MANPSB  |     |        |      | 1.0  | S    |      |        | 0.   |       |        |     |        |     |       |      |       |
| 20   | MANPSB  |     |        |      |      |      |      | P      | 0.   |       |        |     |        |     |       |      |       |
| 25   | MANPSB  |     |        |      |      |      |      | T      | 0.   |       |        |     |        |     |       |      |       |
| 25   | MANPSB  |     |        |      | 1.0  | S    |      |        | 0.   |       |        |     |        |     |       |      |       |
| 25   | MANPSB  |     |        |      |      |      |      | P      | 0.   |       |        |     |        |     |       |      |       |
| 30   | MANPSB  |     |        |      |      |      |      | T      | 0.   |       |        |     |        |     |       |      |       |
| 30   | MANPSB  |     |        |      | 1.0  | S    |      |        | 0.   |       |        |     |        |     |       |      |       |
| 30   | MANPSB  |     |        |      |      |      |      | P      | 0.   |       |        |     |        |     |       |      |       |

SHEET \_\_\_\_ OF \_\_\_\_

## SAS

## OPERATION PROFILE

DATE \_\_\_\_\_

ALC WR

WCDDATE 88064

WCD MBB30B

NAME  
ITEM CD PCN 51454A

NOTES

RCC MANPSA

EQUIP  
CODE

SAS

DATE

QTY

CD/LVL

SKILL

MAND

F HRS

OCCR

HIST

DESC

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9:46 TUESDAY, MARCH 28, 1989 62

SHEET \_\_\_\_\_ OF \_\_\_\_\_

$l = 100000$   
 $S = \text{SETUP}$   
 $P = \text{PROCESS}$

| NAME                 |        | OPERATION PROFILE |           |           |        |               |     |            |     |            |   | SAS |  |
|----------------------|--------|-------------------|-----------|-----------|--------|---------------|-----|------------|-----|------------|---|-----|--|
| ITEM CD PCN 51454A ( |        | ALC WR            |           | DATE      |        | WCDDATE 87364 |     | RCC MANPSA |     | EQUIP CODE |   |     |  |
| OPER NUMB            | RCC    | OPER DESC         | HIST MAND | OPER TYPE | MAND F | SKILL CD/LVL  | QTY | %          | HRS | QTY        | % | HRS |  |
| 5                    | MANPSA | INS               | .         | T         | 0.     |               | .   | .          | .   | .          | . | .   |  |
| 5                    | MANPSA | INS               | 1.0       | S         | 0.     |               | .   | .          | .   | .          | . | .   |  |
| 5                    | MANPSA | INS               | .         | P         | 0.     | 47891         | 1   | .          | 0.1 | .          | . | .   |  |
| 10                   | MANPSA |                   | 1.00      | T         | 0.     |               | .   | .          | .   | .          | . | .   |  |
| 10                   | MANPSA |                   | 1.0       | S         | 0.     |               | .   | .          | .   | .          | . | .   |  |
| 10                   | MANPSA |                   | .         | P         | 0.     |               | .   | .          | .   | .          | . | .   |  |
| 15                   | MANPSA |                   | 1.00      | T         | 0.     |               | .   | .          | .   | .          | . | .   |  |
| 15                   | MANPSA |                   | 1.0       | S         | 0.     |               | .   | .          | .   | .          | . | .   |  |
| 15                   | MANPSA |                   | .         | P         | 0.     |               | .   | .          | .   | .          | . | .   |  |
| 20                   | MANPSA |                   | 1.00      | T         | 0.     |               | .   | .          | .   | .          | . | .   |  |
| 20                   | MANPSA |                   | 1.0       | S         | 0.     |               | .   | .          | .   | .          | . | .   |  |
| 20                   | MANPSA |                   | .         | P         | 0.     |               | .   | .          | .   | .          | . | .   |  |
| 30                   | MANPSA |                   | 1.00      | T         | 0.     |               | .   | .          | .   | .          | . | .   |  |

**SAS**

**OPERATION PROFILE**

SHEET \_\_\_\_\_ OF \_\_\_\_\_

NAME

ITEM CD PCN 51454A†

ALC WR

DATE \_\_\_\_\_

WCDDATE 87364

| OPER<br>NUMB | RCC | OPER<br>DESC | HIST<br>OCCR | MAND<br>OCCR | OPER<br>TYPE | MAND<br>F | HRS | SKILL<br>CD/LVL |
|--------------|-----|--------------|--------------|--------------|--------------|-----------|-----|-----------------|
|--------------|-----|--------------|--------------|--------------|--------------|-----------|-----|-----------------|

## NOTES

**RCC MANPSA**

| QTY | %   | HRS |
|-----|-----|-----|
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NAME

ITEM CD PCN 51454A'

**OPER**

NUMB

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**ALC WR**

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9:33 TUESDAY, MARCH 28, 1989 1

SAS  
ASSEMBLY/DISASSEMBLY PROFILE

| NAME       | ITEM CODE | WCD    | ALC   | WCD | DT  | DSOP         | ASOP | REMOV | ITEM CODE | DATE | RCC | MANPSA | WCD | WCD | DT | INSTALL | SAME | NOTES |
|------------|-----------|--------|-------|-----|-----|--------------|------|-------|-----------|------|-----|--------|-----|-----|----|---------|------|-------|
|            |           |        |       |     |     |              |      |       |           |      |     |        |     |     |    |         |      |       |
| PCN 05502A |           | MB017Y | 88141 | 40  | 380 | PCN 05502AD  |      |       |           |      |     |        |     |     |    |         |      |       |
| PCN 05502A |           | MB017Y | 88141 | 50  | 360 | PCN 05502AA  |      |       |           |      |     |        |     |     |    |         |      |       |
| PCN 05502A |           | MB017Y | 88141 | 60  | 210 | PCN 05502AC  |      |       |           |      |     |        |     |     |    |         |      |       |
| PCN 51454A |           | MB030B | 88064 | 110 | 120 | PCN 51454AH1 |      |       |           |      |     |        |     |     |    |         |      |       |
| PCN 51454A |           | MB030B | 88064 | 20  | 290 | PCN 51454AP7 |      |       |           |      |     |        |     |     |    |         |      |       |
| PCN 51454A |           | MB030B | 88064 | 260 | 370 | PCN 51454AA  |      |       |           |      |     |        |     |     |    |         |      |       |
| PCN 51454A |           | MB030B | 88064 | 270 | 290 | PCN 51454AG  |      |       |           |      |     |        |     |     |    |         |      |       |
| PCN 51454A |           | MB030B | 88064 | 270 | 480 | PCN 51454AH2 |      |       |           |      |     |        |     |     |    |         |      |       |
| PCN 51454A |           | MB030B | 88064 | 290 | 290 | PCN 51454AAB |      |       |           |      |     |        |     |     |    |         |      |       |
| PCN 51454A |           | MB030B | 88064 | 280 | 340 | PCN 51454AI  |      |       |           |      |     |        |     |     |    |         |      |       |
| PCN 51454A |           | MB030B | 88064 | 320 | 400 | PCN 51454AJ  |      |       |           |      |     |        |     |     |    |         |      |       |
| PCN 51454A |           | MB030B | 88064 | 330 | 430 | PCN 51454AD  |      |       |           |      |     |        |     |     |    |         |      |       |
| PCN 51454A |           | MB030B | 88064 | 40  | 500 | PCN 51454AC  |      |       |           |      |     |        |     |     |    |         |      |       |
| PCN 51454A |           | MB030B | 88064 | 90  | 460 | PCN 51454AE  |      |       |           |      |     |        |     |     |    |         |      |       |

490

90 460

13:04 THURSDAY, FEBRUARY 23, 1989

APPENDIX B, REPORT 2  
 (ASSEMBLY/DISASSEMBLY PROFILE LIST FOR ALC=WR RCC=MANPSA  
 SORTED BY PARENT ITEM CODE)

| ITEMCD | ITEMCT | ALC | RCC    | PN                 | PCN    | NSN    | WCD   | WCDDATE | DISOP | ASOP     | REMITEM  | REMCT | MISTRFG | ASSAME | STOCK | DKEY    |
|--------|--------|-----|--------|--------------------|--------|--------|-------|---------|-------|----------|----------|-------|---------|--------|-------|---------|
| 05502A | PCN    | WR  | MANPSA | 8130281-10         | 05502A | MB017Y | 88141 | 40      | 380   | 05502AD  |          | Y     | N       | 0      | 0     | DA01 1  |
| 05502A | PCN    | WR  | MANPSA | 8130281-10         | 05502A | MB017Y | 88141 | 50      | 360   | 05502AA  |          | Y     | N       | 0      | 0     | DA01 2  |
| 05502A | PCN    | WR  | MANPSA | 8130281-10         | 05502A | MB017Y | 88141 | 60      | 210   | 05502AC  |          | Y     | N       | 0      | 0     | DA01 3  |
| X      | 51454A | PCN | WR     | MANPSA 3F40455-105 | 51454A | MB030B | 88064 | 20      | 280   | 51454AF  | 51454AF  | Y     | N       | 0      | 0     | DA01 4  |
| ✓      | 51454A | PCN | WR     | MANPSA 3F40455-105 | 51454A | MB030B | 88064 | 40      | 380   | 51454AC  | 51454AC  | Y     | N       | 0      | 0     | DA01 5  |
| ✓      | 51454A | PCN | WR     | MANPSA 3F40455-105 | 51454A | MB030B | 88064 | 90      | 460   | 51454AE  | 51454AE  | Y     | N       | 0      | 0     | DA01 6  |
| X      | 51454A | PCN | WR     | MANPSA 3F40455-105 | 51454A | MB030B | 88064 | 110     | 120   | 51454AH1 | 51454AH1 | Y     | N       | 0      | 0     | DA01 7  |
| ✓      | 51454A | PCN | WR     | MANPSA 3F40455-105 | 51454A | MB030B | 88064 | 260     | 370   | 51454AA  | 51454AA  | Y     | N       | 0      | 0     | DA01 8  |
| X      | 51454A | PCN | WR     | MANPSA 3F40455-105 | 51454A | MB030B | 88064 | 270     | 280   | 51454AG  | 51454AG  | Y     | N       | 0      | 0     | DA01 9  |
| X      | 51454A | PCN | WR     | MANPSA 3F40455-105 | 51454A | MB030B | 88064 | 270     | 460   | 51454AH2 | 51454AH2 | Y     | N       | 0      | 0     | DA01 10 |
| ✓      | 51454A | PCN | WR     | MANPSA 3F40455-105 | 51454A | MB030B | 88064 | 270     | 280   | 51454AB  | 51454AB  | Y     | N       | 0      | 0     | DA01 11 |
| X      | 51454A | PCN | WR     | MANPSA 3F40455-105 | 51454A | MB030B | 88064 | 280     | 340   | 51454AI  | 51454AI  | Y     | N       | 0      | 0     | DA01 12 |
| X      | 51454A | PCN | WR     | MANPSA 3F40455-105 | 51454A | MB030B | 88064 | 320     | 400   | 51454AJ  | 51454AJ  | Y     | N       | 0      | 0     | DA01 13 |
| ✓      | 51454A | PCN | WR     | MANPSA 3F40455-105 | 51454A | MB030B | 88064 | 330     | 430   | 51454AD  | 51454AD  | Y     | N       | 0      | 0     | DA01 14 |

13:04 THURSDAY, FEBRUARY 23, 1989

APPENDIX B, REPORT  
 ASSEMBLY/DISASSEMBLY PROFILE LIST FOR ALC=WR RCC=MANPSA  
 SORTED BY REMOVED ITEM CODE (REMITEM)

| ITEMCD | ITEMCT | ALC | RCC    | PN          | PCN    | NSN | WCD    | WCDDATE | DISOP | ASOP | REMITEM  | REMCT | MISTRFG | ASSAME | STOCK | DKEY    |
|--------|--------|-----|--------|-------------|--------|-----|--------|---------|-------|------|----------|-------|---------|--------|-------|---------|
| 05502A | PCN    | WR  | MANPSA | 8130281-10  | 05502A |     | MB017Y | 88141   | 50    | 360  | 05502AA  |       | Y       | N      | 0     | DA01 2  |
| 05502A | PCN    | WR  | MANPSA | 8130281-10  | 05502A |     | MB017Y | 88141   | 60    | 210  | 05502AC  |       | Y       | N      | 0     | DA01 3  |
| 05502A | PCN    | WR  | MANPSA | 8130281-10  | 05502A |     | MB017Y | 88141   | 40    | 380  | 05502AD  |       | Y       | N      | 0     | DA01 1  |
| 51454A | PCN    | WR  | MANPSA | 3F40455-105 | 51454A |     | MB030B | 88064   | 260   | 370  | 51454AA  |       | Y       | N      | 0     | DA01 8  |
| 51454A | PCN    | WR  | MANPSA | 3F40455-105 | 51454A |     | MB030B | 88064   | 270   | 460  | 51454AAB |       | Y       | N      | 0     | DA01 11 |
| 51454A | PCN    | WR  | MANPSA | 3F40455-105 | 51454A |     | MB030B | 88064   | 40    | 600  | 51454AC  |       | Y       | N      | 0     | DA01 5  |
| 51454A | PCN    | WR  | MANPSA | 3F40455-105 | 51454A |     | MB030B | 88064   | 330   | 430  | 51454AD  |       | Y       | N      | 0     | DA01 14 |
| 51454A | PCN    | WR  | MANPSA | 3F40455-105 | 51454A |     | MB030B | 88064   | 90    | 460  | 51454AE  |       | Y       | N      | 0     | DA01 6  |
| 51454A | PCN    | WR  | MANPSA | 3F40455-105 | 51454A |     | MB030B | 88064   | 20    | 290  | 51454AF  |       | Y       | N      | 0     | DA01 4  |
| 51454A | PCN    | WR  | MANPSA | 3F40455-105 | 51454A |     | MB030B | 88064   | 270   | 290  | 51454AG  |       | Y       | N      | 0     | DA01 9  |
| 51454A | PCN    | WR  | MANPSA | 3F40455-105 | 51454A |     | MB030B | 88064   | 110   | 120  | 51454AH1 |       | Y       | N      | 0     | DA01 7  |
| 51454A | PCN    | WR  | MANPSA | 3F40455-105 | 51454A |     | MB030B | 88064   | 270   | 460  | 51454AH2 |       | Y       | N      | 0     | DA01 10 |
| 51454A | PCN    | WR  | MANPSA | 3F40455-105 | 51454A |     | MB030B | 88064   | 280   | 340  | 51454AI  |       | Y       | N      | 0     | DA01 12 |
| 51454A | PCN    | WR  | MANPSA | 3F40455-105 | 51454A |     | MB030B | 88064   | 320   | 400  | 51454AJ  |       | Y       | N      | 0     | DA01 13 |



BILL RICH  
4-15-81

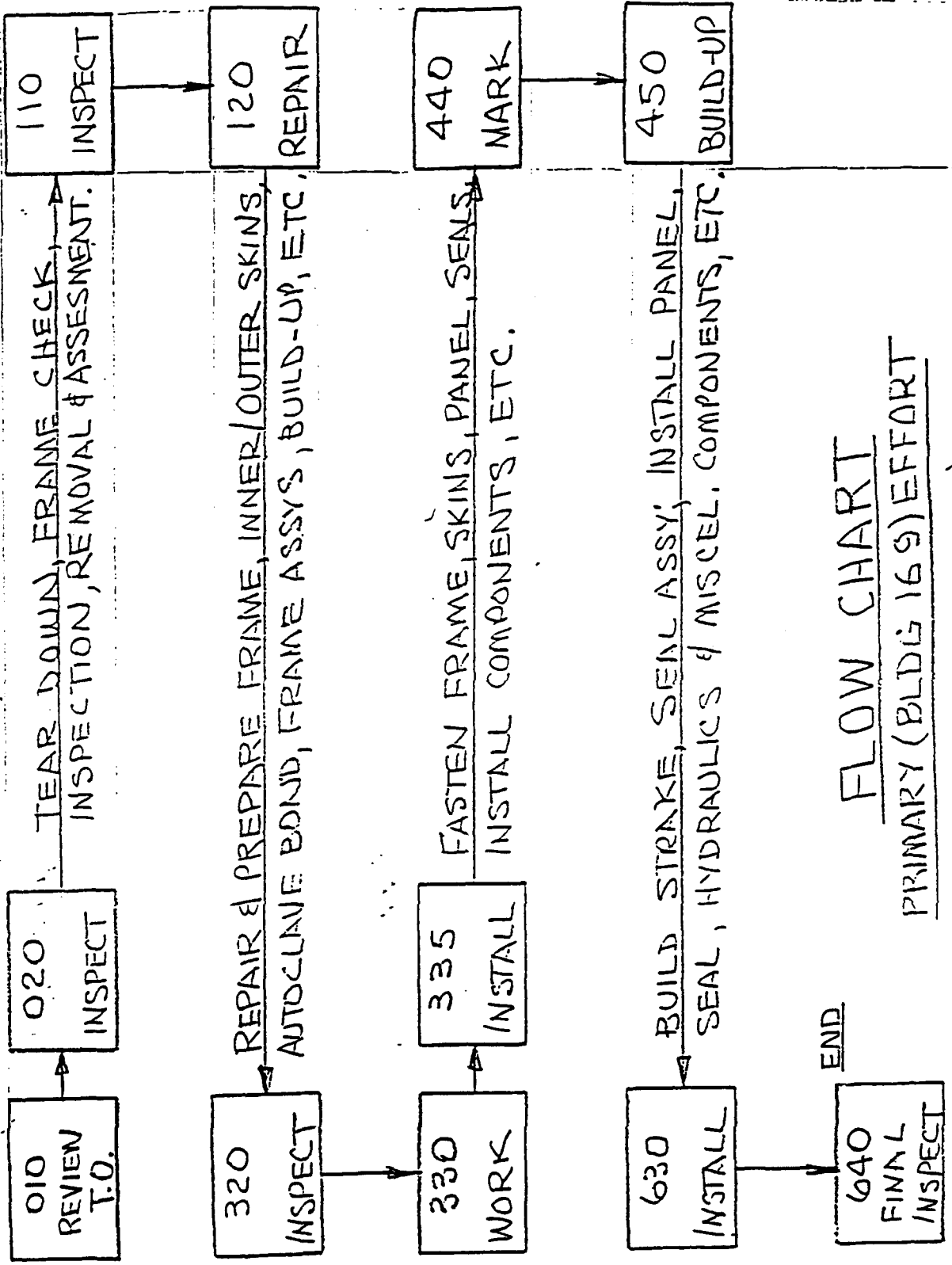
SHEET 2 OF 2

MNPSA

WCD = MBO30B (PARENT)

PCN 51454A/51455A

START



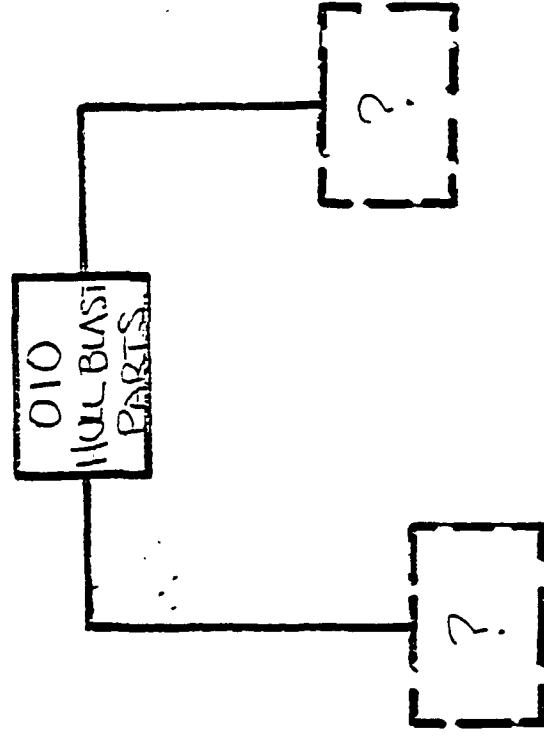
FLOW CHART

PRIMARY (BLDG 169) EFFORT

(OVERVIEW ONLY)



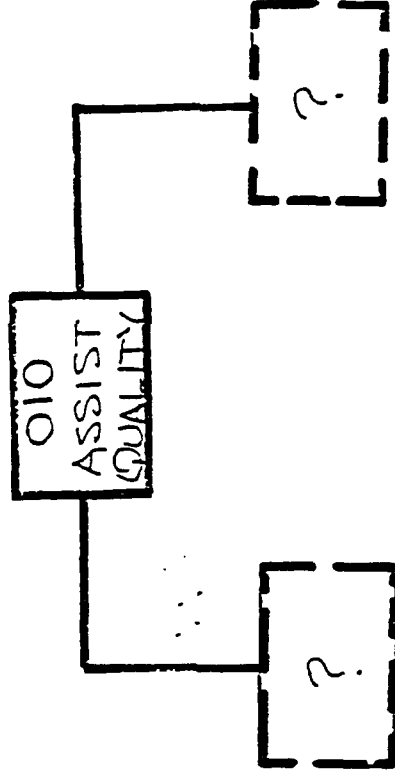
MBA 32 B  
GENL. USAGE (HULL BLAST)



. NO LONGER USED - SEE OPER. 010 ON MBA30B.

MBQ30B

PETAL DOOR (QUALITY)



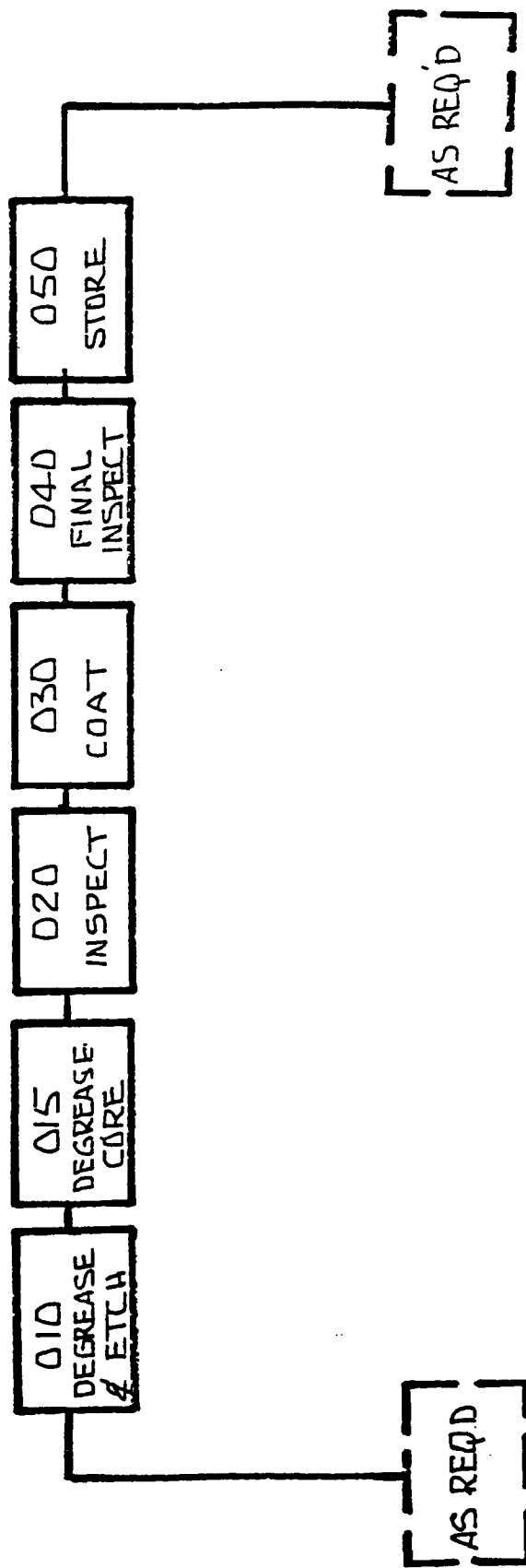
. THIS SUPPLEMENTAL WCD IS INTENDED FOR MECHANIC ASSISTANCE TO QUALITY FOR THE DISPOSITION OF MATERIAL DEFECIENCY REPORTS. IT IS SELDOM USED. NO MDR'S HAVE BEEN ISSUED WITHIN THE LAST 12 MONTHS.



MBOAIB

DEGREASE/ETCH

(BLDG 169)

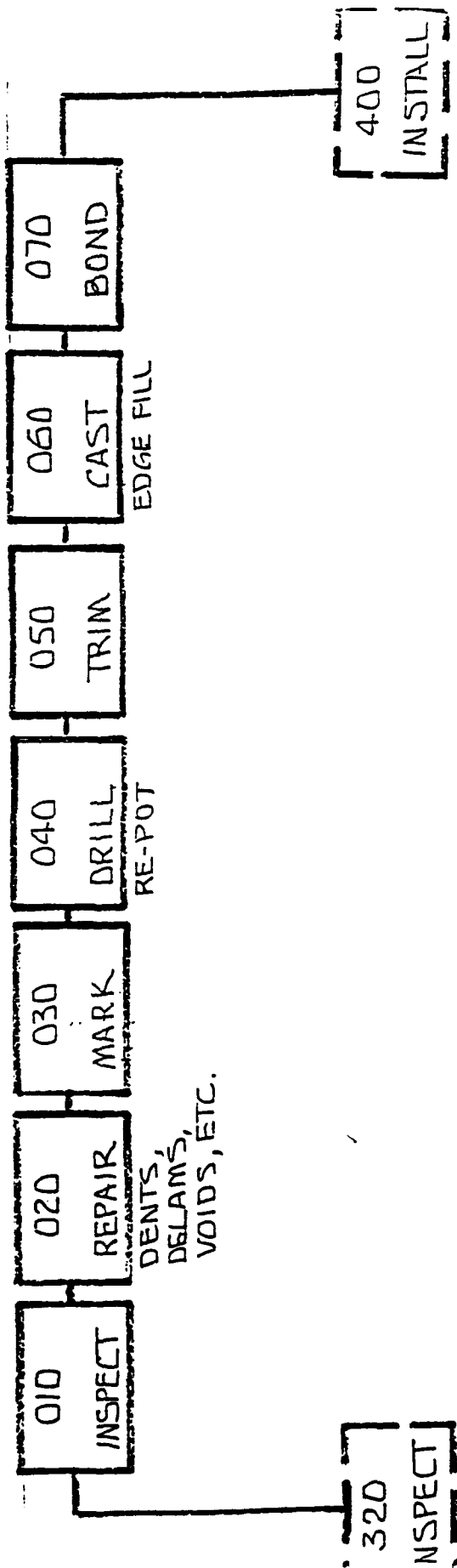


• TO BE USED FOR DETAIL PARTS THAT ARE TO BONDED.

MBJ 30 B

INNER SKIN ASSY

(NEW SKIN)  
(BLDG 169)

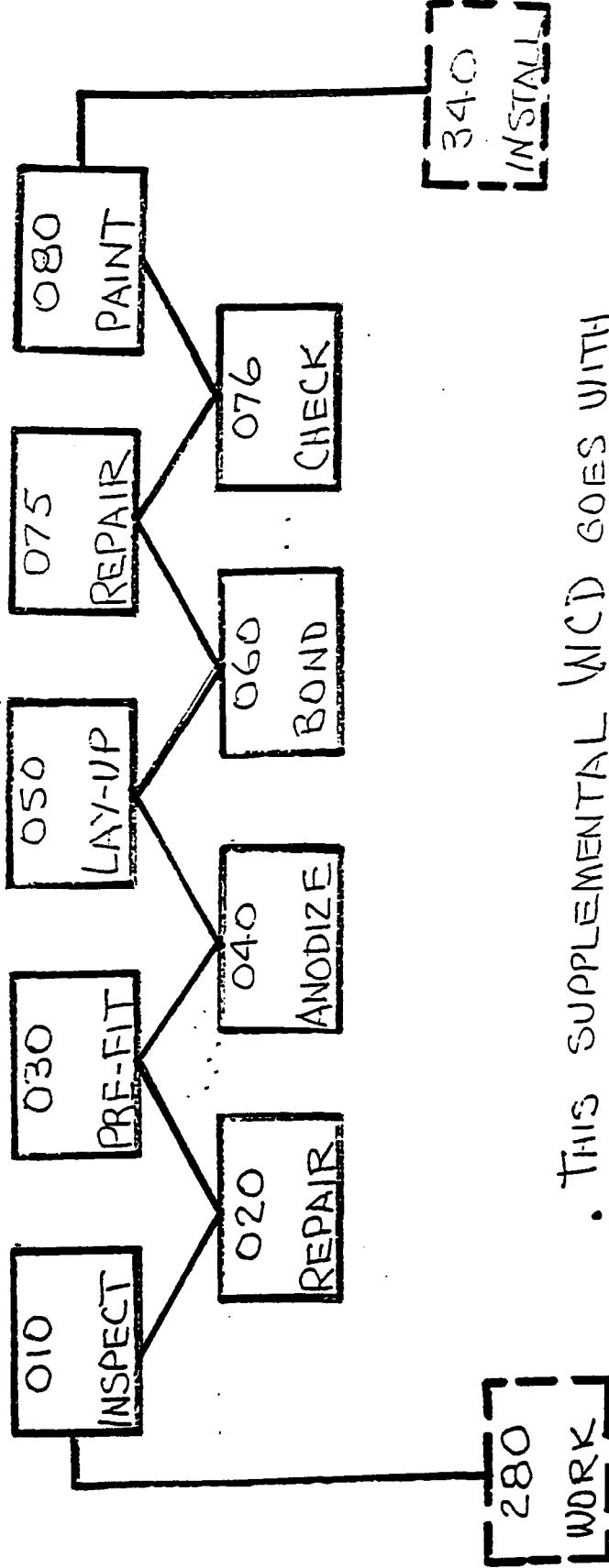


• CURE TIME CRITICAL.

# MBI 30B

## FRAME ASSYS

(BLDG 169)



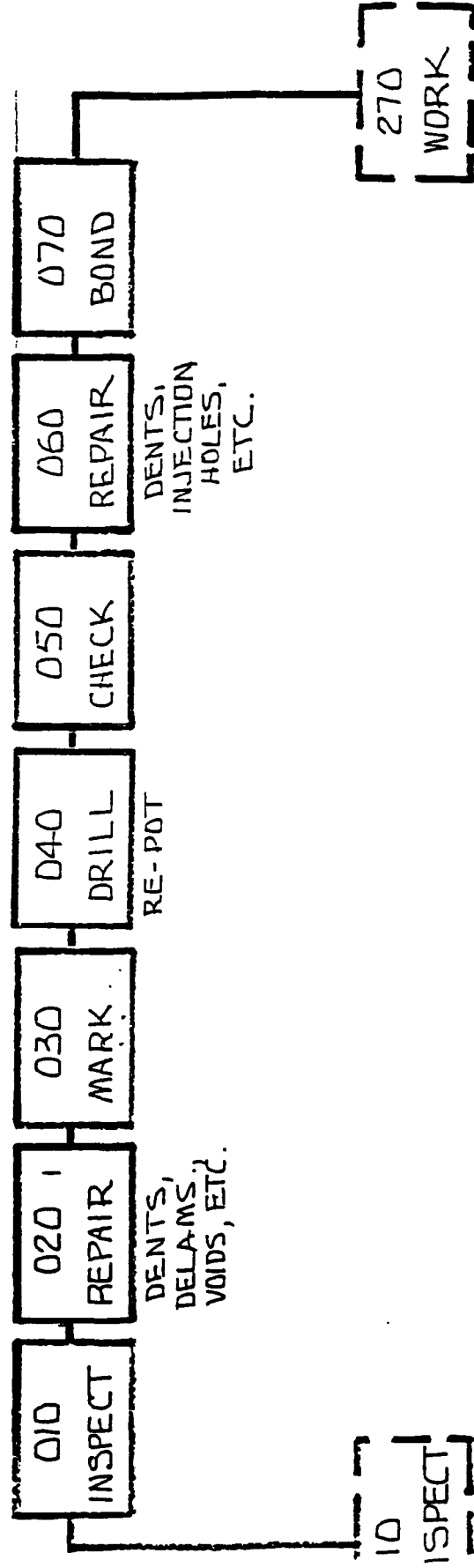
. THIS SUPPLEMENTAL WCD GOES WITH EACH H.C. FRAME ASSY TO BE REPAIRED, WHICH IS USUALLY 2-3 PER DOOR SIDE.

MBH 30 B

OUTER SKIN ASSY

(NEW SKIN)

(BLDG 169)

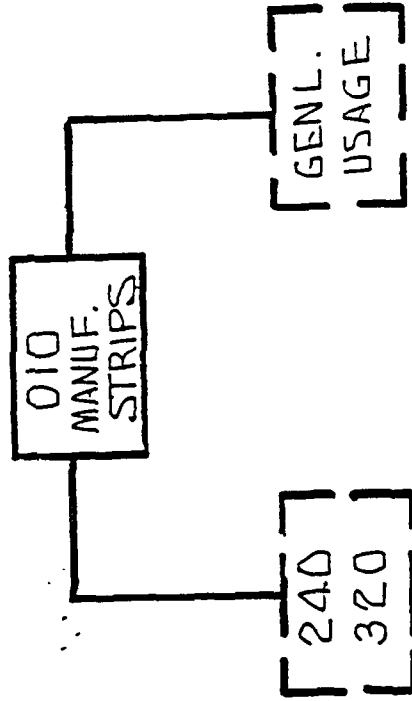


• CURE-TIME CRITICAL.

MBG 30B

STRIPS

(BLDG 169)

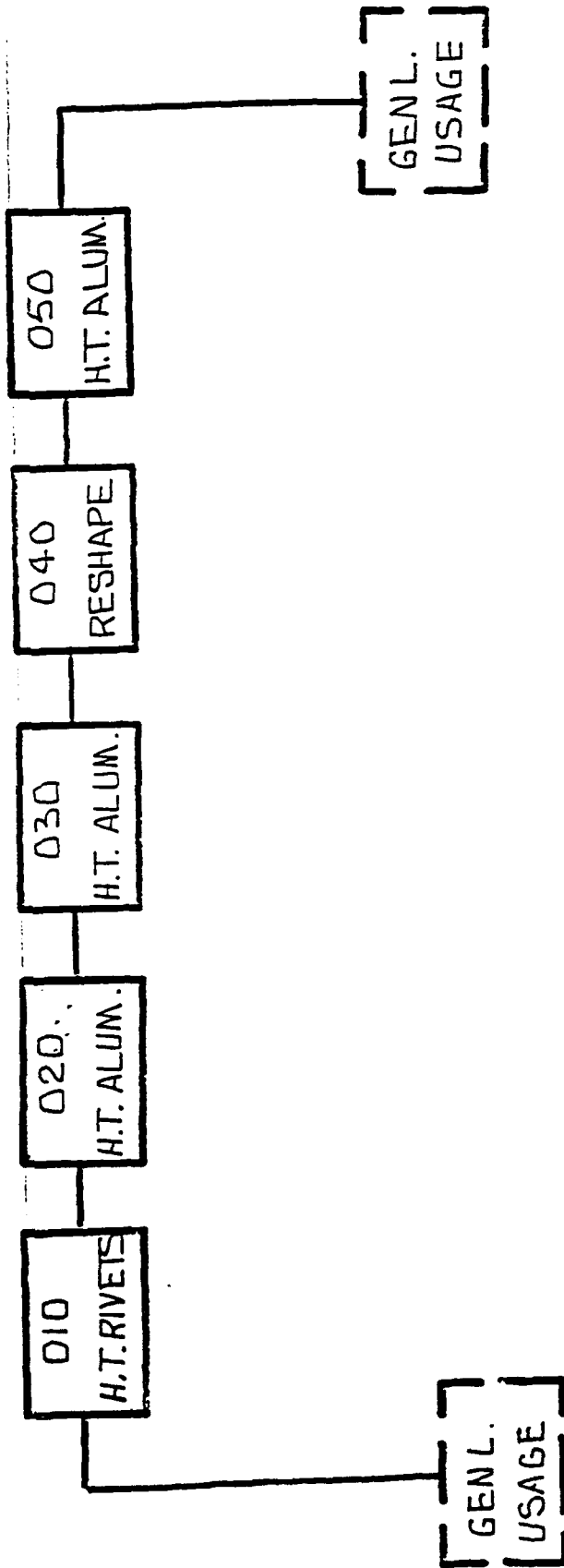


- A GENERAL USAGE WCD FOR BACKING STRIPS AT THE ATTACHMENT OF FRAME TO SKINS.

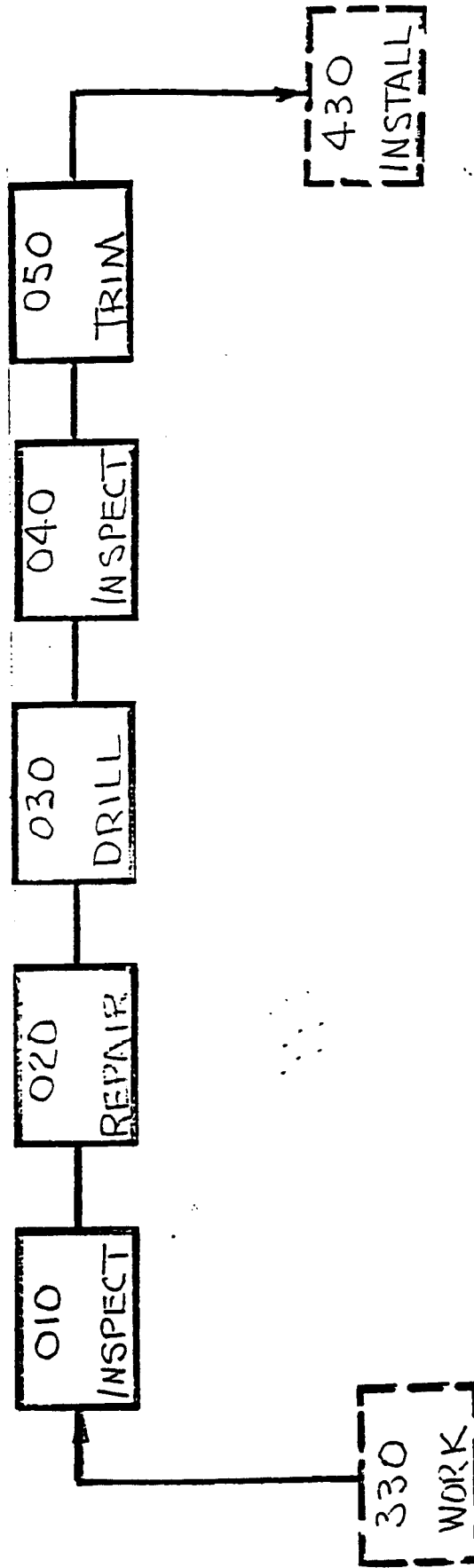
MBF 30 B

MISCEL. PARTS

(BLDG 140)



**MBD 30B**  
**H.C. PANEL**  
(BLDG 169)

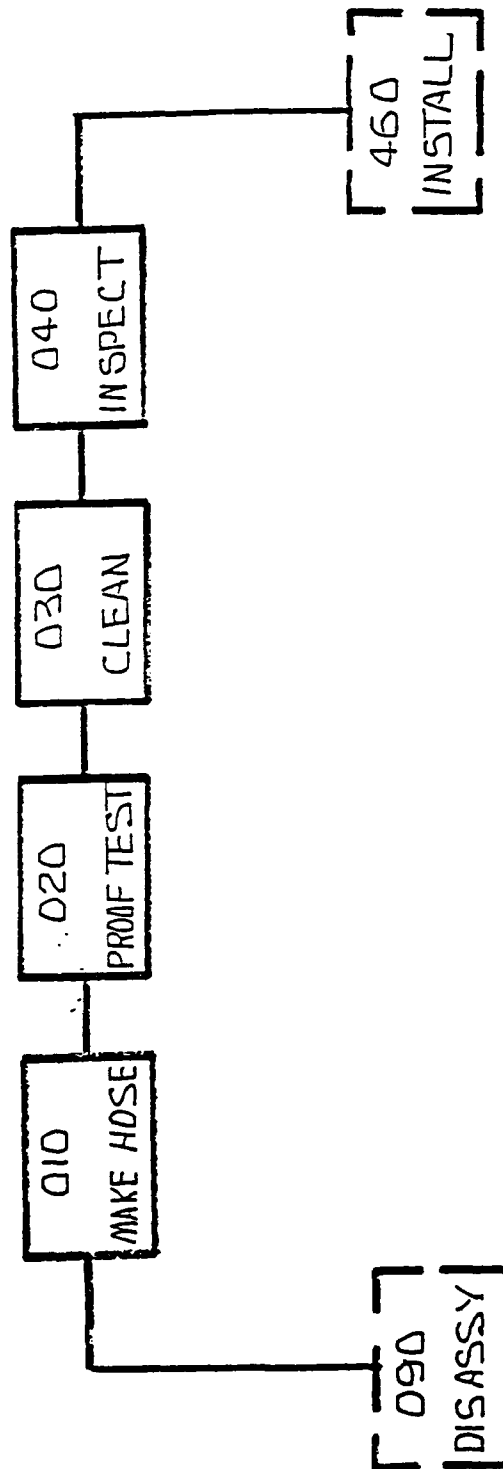


\* THIS SUPPLEMENTAL WCD IS FOR THE REWORK OF THE "OLD" H.C. PANEL. IT IS SELDOM USED. "NEW" H.C. PANELS ARE USED IN LIEU OF.

# MBE 30B

## HOSE ASSEMBLIES

(TUBING AREA BLDG 169)





MBC 30B  
ELECTRICAL  
(BLDG 158)

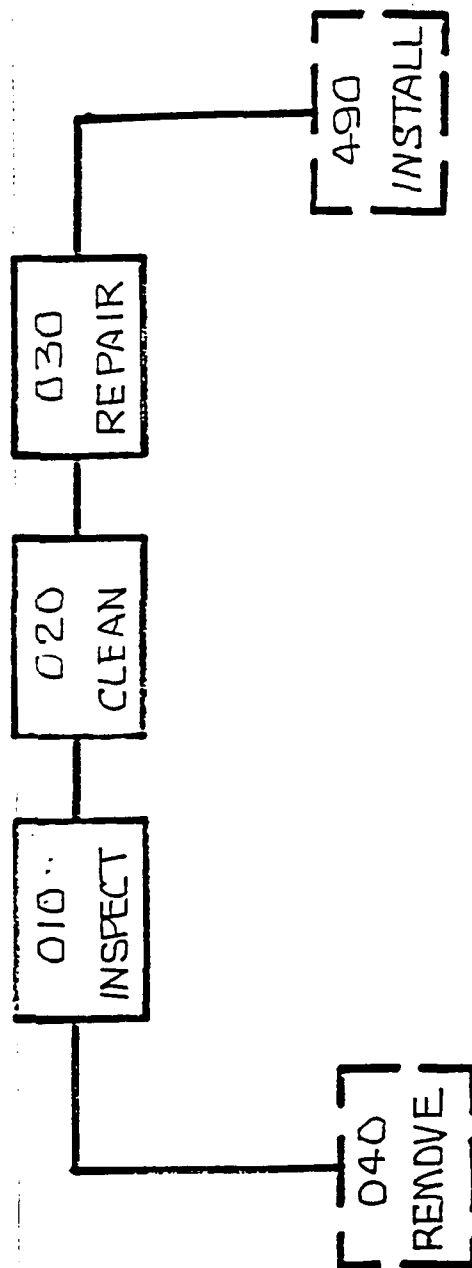
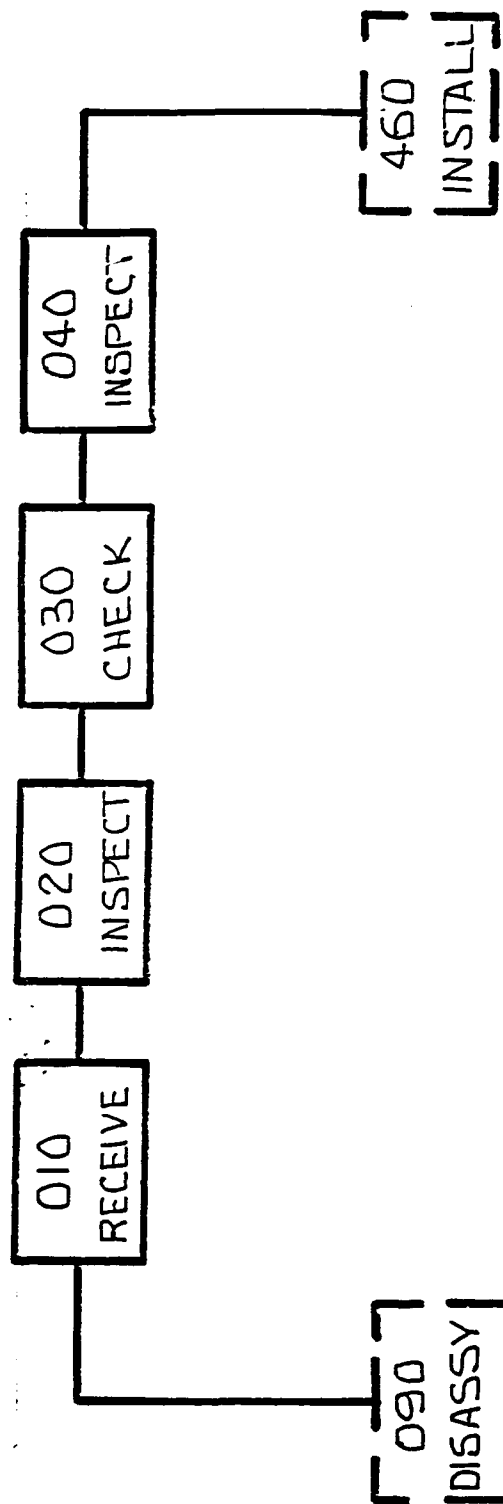


ABB 30 B

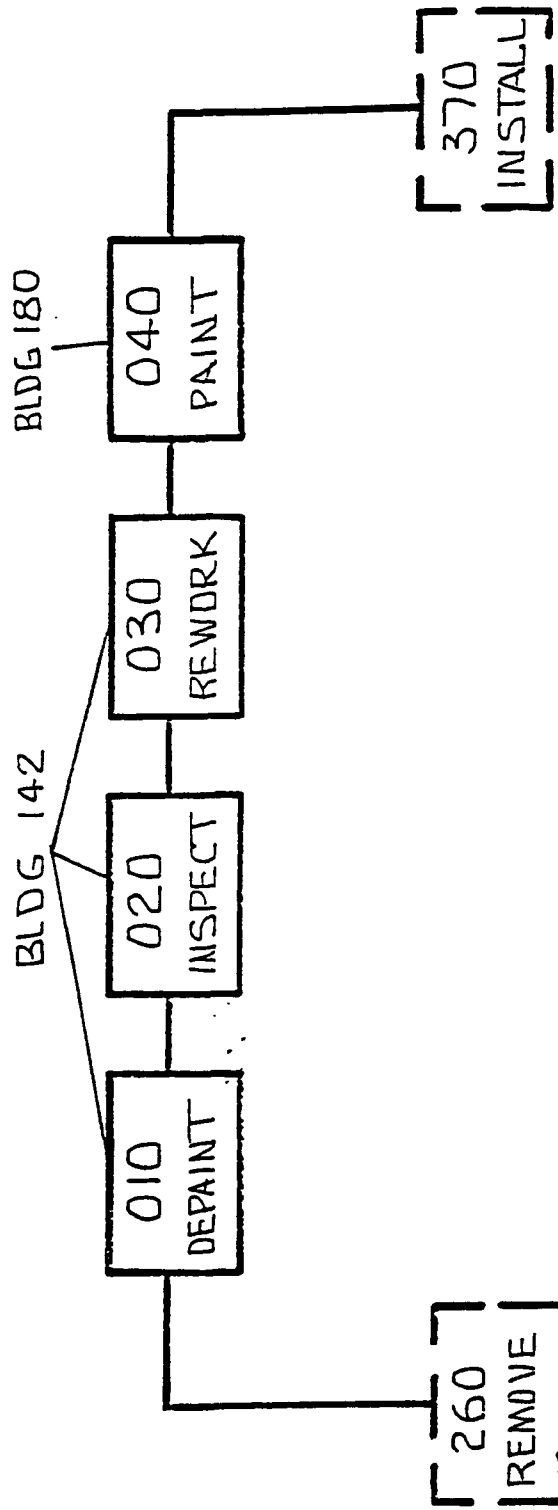
CYLINDER

(HYDRAULIC ACTUATOR, L/H LATCH)

(BLDG 140)



MBA 30B  
FITTINGS



[illegible]

# AFCL TECHNOLOGY INSERTION PROGRAM OPERATION PROFILE INSTRUCTIONS (CONTINUED)

| DATA ITEM             | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | SOURCE                                                          |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                     |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------|------|----------|-----|-------------|-----|----------------------------|------|---------------------------|------|-------------------|-----|--------|------|---------|-----|-------------|------|------|------|--------|------|------|------|------------|-----|-----------------|------|------------------|------|-------------|------|-----------|-----|-------|-----|-----------|------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RCC                   | ENTER RCC NAME FOR THAT OPERATION. IF THIS RCC NAME IS NOT THE PRIMARY RCC, THE OPERATION WILL BE A BACK SHOP OPERATION. IF BACK SHOP, ENTER ONLY MANDATORY OCCURRENCE FACTOR AND MANDATORY FLOW HOURS. (6 CHARACTERS)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | RCC WILL BE LISTED UNDER THE OPERATION NO. IN COLUMN 19 OF WCD. |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                     |
| OPERATION DESCRIPTION | ENTER AN ABBREVIATED DESCRIPTION OF WORK BEING PERFORMED. LIMIT FOUR CHARACTERS. USE THE FOLLOWING ABBREVIATIONS AND CREATE ADDITIONAL ABBREVIATIONS AS REQUIRED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ITEM 20 OF WCD                                                  |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                     |
|                       | <table border="0"> <tr> <td>ABBREVIATION</td><td>DESCRIPTION</td></tr> <tr> <td>ASSY</td><td>ASSEMBLY</td></tr> <tr> <td>DIS</td><td>DISASSEMBLY</td></tr> <tr> <td>NDI</td><td>NON-DESTRUCTIVE INSPECTION</td></tr> <tr> <td>MOVE</td><td>TRAVEL BETWEEN OPERATIONS</td></tr> <tr> <td>PROC</td><td>PROCESS OPERATION</td></tr> <tr> <td>REP</td><td>REPAIR</td></tr> <tr> <td>REPL</td><td>REPLACE</td></tr> <tr> <td>MFG</td><td>MANUFACTURE</td></tr> <tr> <td>LOAD</td><td>LOAD</td></tr> <tr> <td>UNLD</td><td>UNLOAD</td></tr> <tr> <td>TEST</td><td>TEST</td></tr> <tr> <td>INSP</td><td>INSPECTION</td></tr> <tr> <td>REC</td><td>RECEIVE OF ITEM</td></tr> <tr> <td>SHIP</td><td>SHIPMENT OF ITEM</td></tr> <tr> <td>INFO</td><td>INFORMATION</td></tr> <tr> <td>MACH</td><td>MACHINING</td></tr> <tr> <td>CLN</td><td>CLEAN</td></tr> <tr> <td>IND</td><td>INDUCTION</td></tr> <tr> <td>SELL</td><td>SELL DATE</td></tr> </table> | ABBREVIATION                                                    | DESCRIPTION | ASSY | ASSEMBLY | DIS | DISASSEMBLY | NDI | NON-DESTRUCTIVE INSPECTION | MOVE | TRAVEL BETWEEN OPERATIONS | PROC | PROCESS OPERATION | REP | REPAIR | REPL | REPLACE | MFG | MANUFACTURE | LOAD | LOAD | UNLD | UNLOAD | TEST | TEST | INSP | INSPECTION | REC | RECEIVE OF ITEM | SHIP | SHIPMENT OF ITEM | INFO | INFORMATION | MACH | MACHINING | CLN | CLEAN | IND | INDUCTION | SELL | SELL DATE | EVALUATION<br>INSTALL<br>REVIEW<br>WRAP<br>DEPAINT<br>KIT<br>PAINT<br>KIT APPLIED<br>WEIGHT/BALANCE<br>RECORD<br>TAG/ROUTE<br>HEAT TREAT<br>ROUTE<br>PLATE<br>WELD<br>XRAY<br>TREAT |
| ABBREVIATION          | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                     |
| ASSY                  | ASSEMBLY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                     |
| DIS                   | DISASSEMBLY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                     |
| NDI                   | NON-DESTRUCTIVE INSPECTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                     |
| MOVE                  | TRAVEL BETWEEN OPERATIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                     |
| PROC                  | PROCESS OPERATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                     |
| REP                   | REPAIR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                     |
| REPL                  | REPLACE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                     |
| MFG                   | MANUFACTURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                     |
| LOAD                  | LOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                     |
| UNLD                  | UNLOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                     |
| TEST                  | TEST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                     |
| INSP                  | INSPECTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                     |
| REC                   | RECEIVE OF ITEM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                     |
| SHIP                  | SHIPMENT OF ITEM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                     |
| INFO                  | INFORMATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                     |
| MACH                  | MACHINING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                     |
| CLN                   | CLEAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                     |
| IND                   | INDUCTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                     |
| SELL                  | SELL DATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                     |

F-15 Speed Brake

C/N 01900A

Operation Profile

Disassembly/Assembly Profile

In/Out

Process Flow

Operation Description

# OPERATION PROFILE

SPEED BRAKE

NAME BILL RICH ALC WR ALC DATE 4-21-87 RCC MANPSA SHEET 1 OF 1

| OPERATION NUMBER | RCC    | OPERATION DESCRIPTION | MANDATORY OCCURRENCE FACTOR | OPERATION TYPE | MANDATORY FLOW / HOURS |      | MAINPOWER |     | EQUIPMENT |   | DATA SOURCE COMMENTS               |
|------------------|--------|-----------------------|-----------------------------|----------------|------------------------|------|-----------|-----|-----------|---|------------------------------------|
|                  |        |                       |                             |                | %                      | HRS. | QTY.      | %   | QTY.      | % |                                    |
| 0000             | MANPSA | REC                   | 1.00                        | TRANSIT        |                        |      |           |     |           |   | T. KERSEY<br>(6) 4326<br>MECHANIC  |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   | M. MORRISON<br>(6) 3615<br>PLANNER |
|                  |        |                       |                             | PROCESS        | 1.0                    |      | 1         | 0.1 |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | TRANSIT        |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | SETUP          |                        |      |           |     |           |   |                                    |
|                  |        |                       |                             | PROCESS        |                        |      |           |     |           |   |                                    |
| </               |        |                       |                             |                |                        |      |           |     |           |   |                                    |

SAS

OPERATION PROFILE

NAME Bill Rich

ITEM CD PCN 01900A

ALC WR

DATE 5-6-89

RCC MANPSA

WCD MB0068 WCD DATE 87364

OPER NUNB RCC OPER DESC HIST MAND OPER OCCR TYPE F HRS CD/LVL QTY % HRS EQUIP CODE

NOTES

QTY

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SHEET 2 OF 7

SAS

## OPERATION PROFILE

DATE 5-6-89NAME BILL RICH

ITEM CD PCN 01900A

ALC WR

WCD MB006B WCDDATE 87364

EQUIP  
CODESKILL  
CD/LVLMAND  
F HRSHIST MAND  
OCCR TYPEOPER  
DESCOPER  
NUMB

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SAS

OPERATION' PROFILE

NAME BILL RICH

RCC MANPSA

DATE

5-6-89

ALC WR

WCD

ITEM CD PCN 019000A

WCD MB006B WCDDATE 87364

NOTES

% HRS

QTY

EQUIP CODE

% HRS

QTY

SKILL CD/LVL

MAND F HRS

HIST MAND OPER OCCR TYPE

OPER DESC

% HRS

QTY

EQUIP CODE

% HRS

QTY

SKILL CD/LVL

MAND F HRS

HIST MAND OPER OCCR TYPE

OPER DESC

70

MANPSA

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CAYLOR Dyer  
ENGINEER

SHEET 5 OF 7

**SAS**

## OPERATION PROFILE

5-6-89

RCC MANPSA

NAME

Bill Rich

ITEM CD PCN 01900A

WCDDATE 87364

WCDDATE 87364

| OPER<br>NUMB | OPER<br>DESC | HIST<br>OCCR | MAND<br>OCCR | OPER<br>TYPE | MAND<br>F | SKILL<br>CD/LVL | QTY | % | HRS | EQUIP<br>CODE |
|--------------|--------------|--------------|--------------|--------------|-----------|-----------------|-----|---|-----|---------------|
|--------------|--------------|--------------|--------------|--------------|-----------|-----------------|-----|---|-----|---------------|

| OPER<br>NUMB | OPER<br>DESC | HIST<br>OCCR | MAND<br>OCCR | OPER<br>TYPE | MAND<br>F | SKILL<br>CD/LVL | QTY | % | HRS | EQUIP<br>CODE |
|--------------|--------------|--------------|--------------|--------------|-----------|-----------------|-----|---|-----|---------------|
|--------------|--------------|--------------|--------------|--------------|-----------|-----------------|-----|---|-----|---------------|

| OPER<br>NUMB | OPER<br>DESC | HIST<br>OCCR | MAND<br>OCCR | OPER<br>TYPE | MAND<br>F | SKILL<br>CD/LVL | QTY | % | HRS | EQUIP<br>CODE |
|--------------|--------------|--------------|--------------|--------------|-----------|-----------------|-----|---|-----|---------------|
|--------------|--------------|--------------|--------------|--------------|-----------|-----------------|-----|---|-----|---------------|

| OPER<br>NUMB | OPER<br>DESC | HIST<br>OCCR | MAND<br>OCCR | OPER<br>TYPE | MAND<br>F | SKILL<br>CD/LVL | QTY | % | HRS | EQUIP<br>CODE |
|--------------|--------------|--------------|--------------|--------------|-----------|-----------------|-----|---|-----|---------------|
|--------------|--------------|--------------|--------------|--------------|-----------|-----------------|-----|---|-----|---------------|

| OPER | HIST | OPER | MAND        | Skill  |           | EQUIP |
|------|------|------|-------------|--------|-----------|-------|
| NUMB | RCC  | DESC | OCCR TYPE F | CD/LVL | QTY % HRS | CODE  |
|      |      |      |             |        |           |       |

| OPER<br>NUMB | OPER<br>DESC | HIST<br>OCCR | MAND<br>OCCR | OPER<br>TYPE | MAND<br>F | SKILL<br>CD/LVL | QTY | % | HRS | EQUIP<br>CODE |
|--------------|--------------|--------------|--------------|--------------|-----------|-----------------|-----|---|-----|---------------|
|--------------|--------------|--------------|--------------|--------------|-----------|-----------------|-----|---|-----|---------------|

GALLOP OYLER  
HAS REMOVED  
THE TITANIUM  
PATCH - USE GR/EP  
ONLY

GALLOP OYLER  
HAS REMOVED  
THE TITANIUM  
PATCH - USE GR/EP  
ONLY

GALLOP OYLER  
HAS REMOVED  
THE TITANIUM  
PATCH - USE GR/EP  
ONLY

GALLOP OYLER  
HAS REMOVED  
THE TITANIUM  
PATCH - USE GR/EP  
ONLY

SAS  
5-6-84

OPERATION PROFILE

DATE

ALC WR

WCD MB006B WCD DATE 87364

WCD MB006B

NAME Pull Rich

ITEM CD PCN 01900A

OPER NUMB

RCC

OPER DESC

HIST MAND

OCOR TYPE

F HRS

MAND

SKILL

CD/LVL

QTY

%

HRS

EQUIP CODE

NOTES

QTY % HRS

RCC MANPSA

150 MANPSA MOVE 0.94 T 0

150 MANPSA MOVE 1.00 1.0 S 0

150 MANPSA MOVE 0.47891 P 2 0.3

160 MANPCD PNT 0.94 T 1.0 47891 1 0.5

160 MANPCD PNT 1.00 10 S 0

160 MANPCD PNT 30.0 P 0

170 MANPCD WRAP 0.94 T 0

170 MANPCD WRAP 1.00 10 S 0

170 MANPCD WRAP 2.0 P 0

180 MANPSA ASSY 0.94 T 1.0 49533 1 0.5

180 MANPSA ASSY 1.00 1.0 S 0

180 MANPSA ASSY 0.47891 P 2 0.5

B.C.D.C. 180



SHEET /

**SAS**

## OPERATION' PROFILE

5-6-89

**RCC MANPSA**

BILL RYCH

NAME BILL K  
ITEM CD PCN 01900A

WCD MB006B WCDDATE 87364

**ALC WR**

DATE \_\_\_\_\_

[illegible]

| HIST<br>OCCR | MAND<br>OCCR | OPER<br>TYPE | MAND<br>F HRS | SKILL<br>CD/LVL |
|--------------|--------------|--------------|---------------|-----------------|
| 1            | 1            | 1            | 1             | 1               |

EQUIP  
CODE

NOTES

| QTY | % | HRS |
|-----|---|-----|
|-----|---|-----|

| QTY | %   | HRS |
|-----|-----|-----|
| 1   | 100 | 1   |

CD/LVL

F HRS

CR TY

**OCCR**

DESC

**RCC**

**NUME**

# DISASSEMBLY/ASSEMBLY I LE

F-15 SPEED BRAKE

NAME BILL RICH ALC WR-ALC DATE 4-28-89 RCC INPSA SHEET 1 OF 1

| TOP ASSEMBLY |     |          | REMOVAL<br>OPERATION<br>NUMBER | INSTALLATION<br>OPERATION<br>NUMBER | SUBASSEMBLY |           |                | SAME REMOVED<br>ITEM INSTALLED<br>MTO ASST.<br>Y/N |
|--------------|-----|----------|--------------------------------|-------------------------------------|-------------|-----------|----------------|----------------------------------------------------|
| ITEM NUMBER  | WCD | WCD DATE |                                |                                     | ITEM NUMBER | CHILD WCD | CHILD WCD DATE |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |
| PIN          |     |          |                                |                                     |             |           |                |                                                    |
| PCN          |     |          |                                |                                     |             |           |                |                                                    |
| NSH          |     |          |                                |                                     |             |           |                |                                                    |

MANPSA

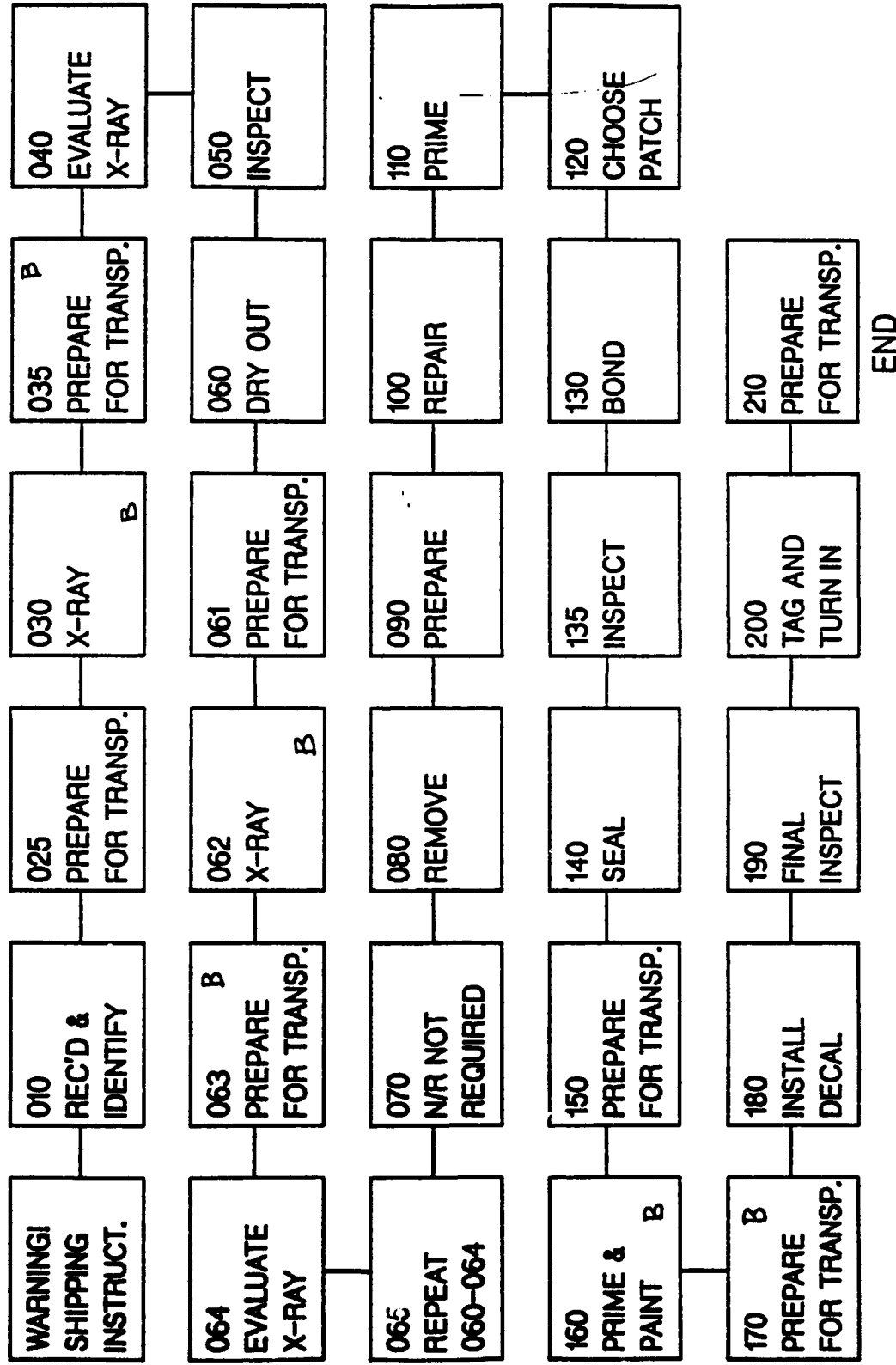
WCD=MB006B

PCN=01900A

BILL RICH  
4-25-89

# F-15 SPEED BRAKE

START





# AFCL TECHNOLOGY INSERTION PROGRAM OPERATION PROFILE INSTRUCTIONS (CONTINUED)

PAGE 2

| DATA ITEM             | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SOURCE                                                          |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                    |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------|------|----------|-----|-------------|-----|----------------------------|------|---------------------------|------|-------------------|-----|--------|------|---------|-----|-------------|------|------|------|--------|------|------|------|------------|-----|-----------------|------|------------------|------|-------------|------|-----------|-----|-------|-----|-----------|------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RCC                   | ENTER RCC NAME FOR THAT OPERATION. IF THIS RCC NAME IS NOT THE PRIMARY RCC, THE OPERATION WILL BE A BACK SHOP OPERATION. IF BACK SHOP, ENTER ONLY MANDATORY OCCURRENCE FACTOR AND MANDATORY FLOW HOURS. (6 CHARACTERS)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | RCC WILL BE LISTED UNDER THE OPERATION NO. IN COLUMN 19 OF WCD. |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                    |
| OPERATION DESCRIPTION | ENTER AN ABBREVIATED DESCRIPTION OF WORK BEING PERFORMED. LIMIT FOUR CHARACTERS. USE THE FOLLOWING ABBREVIATIONS AND CREATE ADDITIONAL ABBREVIATIONS AS REQUIRED.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ITEM 20 OF WCD                                                  |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                    |
|                       | <table border="0"> <tr> <td>ABBREVIATION</td><td>DESCRIPTION</td></tr> <tr><td>ASSY</td><td>ASSEMBLY</td></tr> <tr><td>DIS</td><td>DISASSEMBLY</td></tr> <tr><td>NDI</td><td>NON-DESTRUCTIVE INSPECTION</td></tr> <tr><td>MOVE</td><td>TRAVEL BETWEEN OPERATIONS</td></tr> <tr><td>PROC</td><td>PROCESS OPERATION</td></tr> <tr><td>REP</td><td>REPAIR</td></tr> <tr><td>REPL</td><td>REPLACE</td></tr> <tr><td>MFG</td><td>MANUFACTURE</td></tr> <tr><td>LOAD</td><td>LOAD</td></tr> <tr><td>UNLD</td><td>UNLOAD</td></tr> <tr><td>TEST</td><td>TEST</td></tr> <tr><td>INSP</td><td>INSPECTION</td></tr> <tr><td>REC</td><td>RECEIVE OF ITEM</td></tr> <tr><td>SHIP</td><td>SHIPMENT OF ITEM</td></tr> <tr><td>INFO</td><td>INFORMATION</td></tr> <tr><td>MACH</td><td>MACHINING</td></tr> <tr><td>CLN</td><td>CLEAN</td></tr> <tr><td>IND</td><td>INDUCTION</td></tr> <tr><td>SELL</td><td>SELL DATE</td></tr> </table> | ABBREVIATION                                                    | DESCRIPTION | ASSY | ASSEMBLY | DIS | DISASSEMBLY | NDI | NON-DESTRUCTIVE INSPECTION | MOVE | TRAVEL BETWEEN OPERATIONS | PROC | PROCESS OPERATION | REP | REPAIR | REPL | REPLACE | MFG | MANUFACTURE | LOAD | LOAD | UNLD | UNLOAD | TEST | TEST | INSP | INSPECTION | REC | RECEIVE OF ITEM | SHIP | SHIPMENT OF ITEM | INFO | INFORMATION | MACH | MACHINING | CLN | CLEAN | IND | INDUCTION | SELL | SELL DATE | EVALUATE<br>INSTALL<br>REVIEW<br>WRAP<br>DEPAINT<br>KIT<br>PAINT<br>NOT APPLIED<br>WEIGHT/BALANCE<br>RECORDS<br>TAG/ROUTE<br>HEAT TREAT<br>ROUTE<br>PLATE<br>WELD<br>XRAY<br>TREAT |
| ABBREVIATION          | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                    |
| ASSY                  | ASSEMBLY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                    |
| DIS                   | DISASSEMBLY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                    |
| NDI                   | NON-DESTRUCTIVE INSPECTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                    |
| MOVE                  | TRAVEL BETWEEN OPERATIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                    |
| PROC                  | PROCESS OPERATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                    |
| REP                   | REPAIR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                    |
| REPL                  | REPLACE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                    |
| MFG                   | MANUFACTURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                    |
| LOAD                  | LOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                    |
| UNLD                  | UNLOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                    |
| TEST                  | TEST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                    |
| INSP                  | INSPECTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                    |
| REC                   | RECEIVE OF ITEM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                    |
| SHIP                  | SHIPMENT OF ITEM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                    |
| INFO                  | INFORMATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                    |
| MACH                  | MACHINING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                    |
| CLN                   | CLEAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                    |
| IND                   | INDUCTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                    |
| SELL                  | SELL DATE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                 |             |      |          |     |             |     |                            |      |                           |      |                   |     |        |      |         |     |             |      |      |      |        |      |      |      |            |     |                 |      |                  |      |             |      |           |     |       |     |           |      |           |                                                                                                                                                                                    |

C-141 Access Door  
C/N 51352A/51353A

Operation Profile

Disassembly/Assembly Profile

In/Out

Process Flow

Operation Description

NAME BILL RICH ALC WR ALC ALC OPERATION P FILE MANIPSA DATE 4-22-89 RCC MANIPSA SHEET 1 OF 1

1.5C-2(MK)2C:

NAME Bill Rich OPERATION PROFILE SAS  
 ITEM CD PCN 51352A ALC WR DATE 5-4-89 RCC MANPSA

WCD MBO10B WCD DATE 88026

OPER HST MAND OPER MAND SKILL EQUIP  
 NUMB RCC DESC OCCR TYPE F HRS CD/LVL QTY % HRS CODE

10 MANPDD CLN 0.99 T 1.0 49534 1 0.5

10 MANPDD CLN 1.0 S 0.

10 MANPDD CLN 15.0 P

15 MANPSE INS 1.00 T 1.0 9AD14 1 0.5

15 MANPSE INS 1.0 S 0.

15 MANPSE INS 1.0 P 0. 47891 1 1.0

20 MANPSC DIS 1.00 T 1.0 49534 1 0.5

20 MANPSC DIS 1.0 S 0.

20 MANPSC DIS 1.0 P 0. 47891 1 4.0

40 MANPSA ASSY 1.00 T 1.0 47891 1 0.5

40 MANPSA ASSY 1.0 S 0.

40 MANPSA ASSY 1.0 P 0. 47891 1 1.0

50 MANPSA ASSY 1.00 T 0.

BLOG  
180

[illegible]

OPERATION PROFILE SAS

| NAME | ITEM CD | PCN  | 51352A | WCD  | MB010B | ALC | WR | DATE | WCD | DATE | 88026 | QTY | % | HRS | EQUIP | CODE | QTY | % | HRS | NOTES |
|------|---------|------|--------|------|--------|-----|----|------|-----|------|-------|-----|---|-----|-------|------|-----|---|-----|-------|
| OPER | NUMB    | RCC  | MANPSA | ASSY | 1.0    | S   | 0. |      |     |      |       |     |   |     |       |      |     |   |     |       |
| 90   | MANPSA  | ASSY | 1.00   | T    | 0.     |     |    |      |     |      |       |     |   |     |       |      |     |   |     |       |
| 90   | MANPSA  | ASSY | 1.00   | T    | 0.     |     |    |      |     |      |       |     |   |     |       |      |     |   |     |       |
| 100  | MANPSA  | ASSY | 1.00   | T    | 0.     |     |    |      |     |      |       |     |   |     |       |      |     |   |     |       |
| 100  | MANPSA  | ASSY | 1.00   | T    | 0.     |     |    |      |     |      |       |     |   |     |       |      |     |   |     |       |
| 100  | MANPSA  | ASSY | 1.00   | T    | 0.     |     |    |      |     |      |       |     |   |     |       |      |     |   |     |       |
| 100  | MANPSA  | ASSY | 1.00   | T    | 0.     |     |    |      |     |      |       |     |   |     |       |      |     |   |     |       |
| 110  | MANPSA  | INS  | 1.00   | T    | 0.     |     |    |      |     |      |       |     |   |     |       |      |     |   |     |       |
| 110  | MANPSA  | INS  | 1.00   | T    | 0.     |     |    |      |     |      |       |     |   |     |       |      |     |   |     |       |
| 110  | MANPSA  | INS  | 1.00   | T    | 0.     |     |    |      |     |      |       |     |   |     |       |      |     |   |     |       |
| 130  | MANPSA  | ASSY | 1.00   | T    | 0.     |     |    |      |     |      |       |     |   |     |       |      |     |   |     |       |
| 130  | MANPSA  | ASSY | 1.00   | T    | 0.     |     |    |      |     |      |       |     |   |     |       |      |     |   |     |       |
| 130  | MANPSA  | ASSY | 1.00   | T    | 0.     |     |    |      |     |      |       |     |   |     |       |      |     |   |     |       |
| 140  | MANPSA  | ASSY | 1.00   | T    | 0.     |     |    |      |     |      |       |     |   |     |       |      |     |   |     |       |
| 140  | MANPSA  | ASSY | 1.00   | T    | 0.     |     |    |      |     |      |       |     |   |     |       |      |     |   |     |       |

AUTOCLAVE

SHEET 4 OF 5

SAS

OPERATION PROFILE

NAME \_\_\_\_\_

ITEM CD PCN 51352A

ALC WR

DATE

WCD MB010B WDDATE 88026

OPER NUMB RCC OPER DESC HIST MAND OPER MAND F HRS SKILL CD/LVL QTY % HRS EQUIP CODE

QTY % HRS NOTES

140 MANPSA ASSY . . . P 0 47891 1 1.0

150 MANPSC ASSY 1.00 . T 1.0 9A014 1 0.5

150 MANPSC ASSY . 10 S 0 .

150 MANPSC ASSY . . . P 8.0

170 MANPDC PUT 0.99 . T 1.0 49534 1 0.5

170 MANPDC PUT . 10 S 0 .

170 MANPDC PUT . . . P 20.0

180 MANPSC ASSY 1.00 . T 1.0 49534 1 0.5

180 MANPSC ASSY . 10 S 0 .

180 MANPSC ASSY . . . P 0 49534 1 1.0

190 MANPSC ASSY 1.00 . T 0 .

190 MANPSC ASSY . 10 S 0 .

BLO 2  
130

**OPERATION PROFILE**

[illegible]



ASSEMBLY / USASSEMBLY

THREE IS EXISTING  
ATTACHED LIST DATED  
10/14/88 BOB SCOTT

# DISASSEMBLY/ASSEMBLY PROFILE

NAME BILL RICH ALC WR-ALC DATE 4-28-89 RDC MAN PSA SHEET 1 OF 2

| TOP ASSEMBLY                     |        |          | REMOVAL<br>OPERATION<br>NUMBER | INSTALLATION<br>OPERATION<br>NUMBER | SUBASSEMBLY       |          |               | SAME REMOVED<br>ITEM INSTALLED<br>ONTO ASSEMBLY |
|----------------------------------|--------|----------|--------------------------------|-------------------------------------|-------------------|----------|---------------|-------------------------------------------------|
| ITEM NUMBER                      | WCD    | WCD DATE |                                |                                     | ITEM NUMBER       | CHLD WCD | CHLD WCD DATE |                                                 |
| PCN<br>NSN<br>PIN<br>3P21698-101 | MB010B | 88026    | 020                            | 150                                 | PCN<br>NSN<br>PIN |          |               |                                                 |
| PCN<br>NSN<br>PIN<br>3P21697-111 |        |          |                                |                                     | PCN<br>NSN<br>PIN |          |               |                                                 |
| PCN<br>NSN<br>PIN<br>3P21513-121 |        |          |                                |                                     | PCN<br>NSN<br>PIN |          |               |                                                 |
| PCN<br>NSN<br>PIN<br>3P96002-107 |        |          |                                |                                     | PCN<br>NSN<br>PIN |          |               |                                                 |
| PCN<br>NSN<br>PIN<br>3P21513-119 |        |          |                                |                                     | PCN<br>NSN<br>PIN |          |               |                                                 |
| PCN<br>NSN<br>PIN<br>3P21513-117 |        |          |                                |                                     | PCN<br>NSN<br>PIN |          |               |                                                 |
| PCN<br>NSN<br>PIN<br>3P21522-103 |        |          |                                |                                     | PCN<br>NSN<br>PIN |          |               |                                                 |
| PCN<br>NSN<br>PIN<br>3P21903-101 |        |          |                                |                                     | PCN<br>NSN<br>PIN |          |               |                                                 |
| PCN<br>NSN<br>PIN<br>3P21515-105 |        |          |                                |                                     | PCN<br>NSN<br>PIN |          |               |                                                 |
| PCN<br>NSN<br>PIN<br>3P21525-101 |        |          |                                |                                     | PCN<br>NSN<br>PIN |          |               |                                                 |
| PCN<br>NSN<br>PIN<br>3P21526-101 |        |          |                                |                                     | PCN<br>NSN<br>PIN |          |               |                                                 |
| PCN<br>NSN<br>PIN<br>3P21904-101 | MB010B | 88026    | 020                            | 150                                 | PCN<br>NSN<br>PIN |          |               |                                                 |

LSC-21XW35A

# DISASSEMBLY/ASSEMB. 'ROFILE

NAME BILL RICH ALC WR-ALC DATE 4-28-89 ROC MANPSA SHEET 2 OF 2

| TOP ASSEMBLY                     |        |          | REMOVAL<br>OPERATION<br>NUMBER | INSTALLATION<br>OPERATION<br>NUMBER | SUBASSEMBLY       |          |               | SAME REMOVED<br>ITEM RECALLED<br>INTO ASST.<br>Y/N |
|----------------------------------|--------|----------|--------------------------------|-------------------------------------|-------------------|----------|---------------|----------------------------------------------------|
| ITEM NUMBER                      | WCD    | WCD DATE |                                |                                     | ITEM NUMBER       | CHLD WCD | CHLD WCD DATE |                                                    |
| PCN<br>NSN<br>PIN<br>3P21904-102 | MB010B | 88026    | 020                            | 150                                 | PCN<br>NSN<br>PIN |          |               |                                                    |
| PCN<br>NSN<br>PIN<br>3P21909-101 |        |          |                                |                                     | PCN<br>NSN<br>PIN |          |               |                                                    |
| PCN<br>NSN<br>PIN<br>S189-8      |        |          |                                |                                     | PCN<br>NSN<br>PIN |          |               |                                                    |
| PCN<br>NSN<br>PIN<br>3P21905-101 |        |          |                                |                                     | PCN<br>NSN<br>PIN |          |               |                                                    |
| PCN<br>NSN<br>PIN<br>56385-101   |        |          |                                |                                     | PCN<br>NSN<br>PIN |          |               |                                                    |
| PCN<br>NSN<br>PIN<br>3P21919-101 | MB010B | 88026    | 020                            | 156                                 | PCN<br>NSN<br>PIN |          |               |                                                    |
| PCN<br>NSN<br>PIN                |        |          |                                |                                     | PCN<br>NSN<br>PIN |          |               |                                                    |
| PCN<br>NSN<br>PIN                |        |          |                                |                                     | PCN<br>NSN<br>PIN |          |               |                                                    |
| PCN<br>NSN<br>PIN                |        |          |                                |                                     | PCN<br>NSN<br>PIN |          |               |                                                    |
| PCN<br>NSN<br>PIN                |        |          |                                |                                     | PCN<br>NSN<br>PIN |          |               |                                                    |
| PCN<br>NSN<br>PIN                |        |          |                                |                                     | PCN<br>NSN<br>PIN |          |               |                                                    |
| PCN<br>NSN<br>PIN                |        |          |                                |                                     | PCN<br>NSN<br>PIN |          |               |                                                    |
| PCN<br>NSN<br>PIN                |        |          |                                |                                     | PCN<br>NSN<br>PIN |          |               |                                                    |
| PCN<br>NSN<br>PIN                |        |          |                                |                                     | PCN<br>NSN<br>PIN |          |               |                                                    |
| PCN<br>NSN<br>PIN                |        |          |                                |                                     | PCN<br>NSN<br>PIN |          |               |                                                    |

LSC-20095A

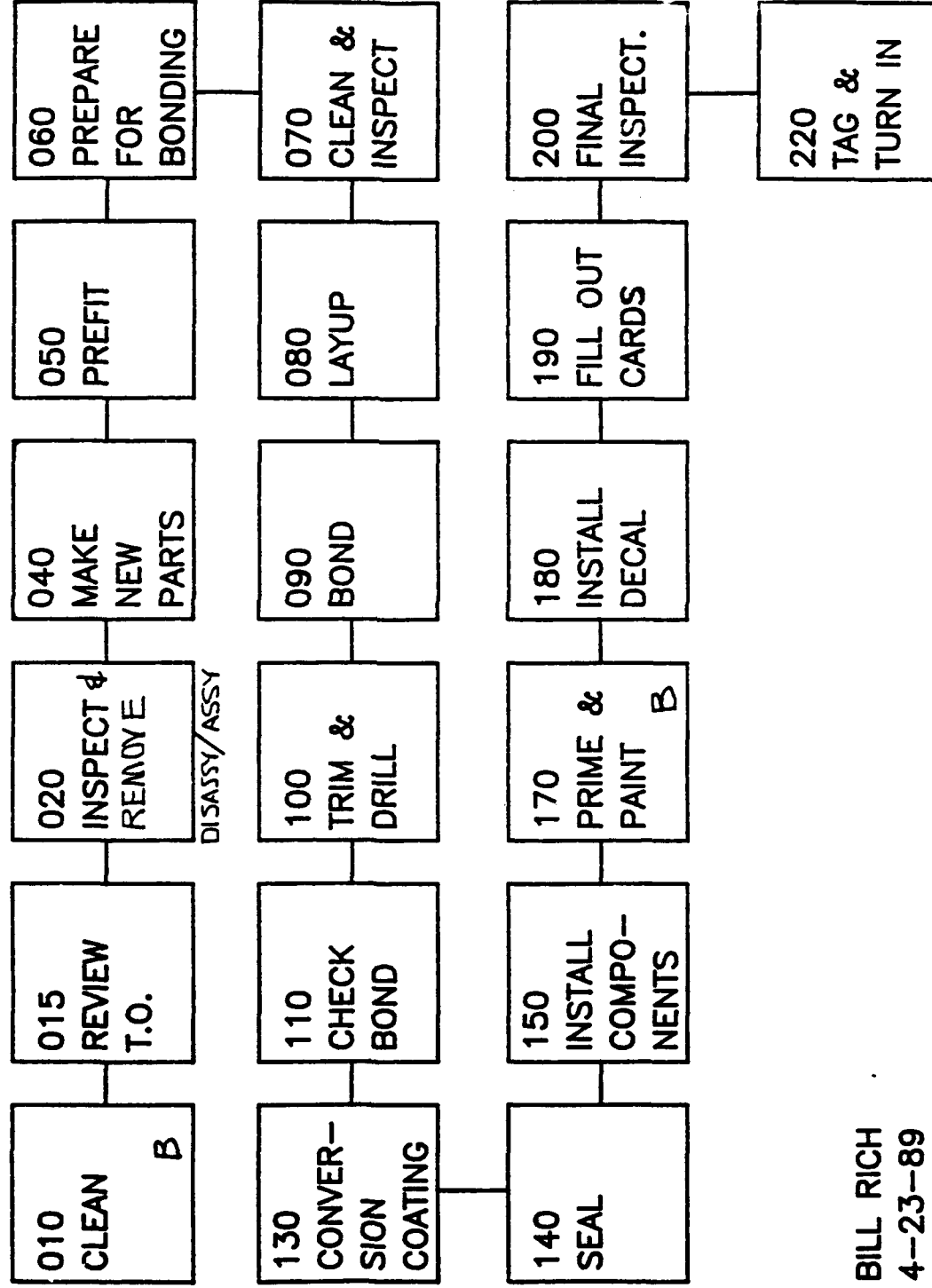
MANPSA

WCD=MB010B

PCN=51352A/51353A=

C-141 COWL ACCESS DOOR

START



END

BILL RICH  
4-23-89

# AFLC TECHNOLOGY INSERTION PROGRAM OPERATION PROFILE INSTRUCTIONS (CONTINUED)

## DATA ITEM

## DESCRIPTION

## SOURCE

RCC

ENTER RCC NAME FOR THAT OPERATION. IF THIS RCC NAME IS NOT THE PRIMARY RCC, THE OPERATION WILL BE A BACK SHOP OPERATION. IF BACK SHOP, ENTER ONLY MANDATORY OCCURRENCE FACTOR AND MANDATORY FLOW HOURS. (6 CHARACTERS)

RCC WILL BE LISTED UNDER THE OPERATION NO. IN COLUMN 19 OF WCD.

OPERATION  
DESCRIPTION

ENTER AN ABBREVIATED DESCRIPTION OF WORK BEING PERFORMED. LIMIT FOUR CHARACTERS. USE THE FOLLOWING ABBREVIATIONS AND CREATE ADDITIONAL ABBREVIATIONS AS REQUIRED.

ITEM 20 OF WCD

## ABBREVIATION

## DESCRIPTION

ASSY  
DIS  
NDI  
MOVE  
PROC  
REP  
REPL  
MFG  
LOAD  
UNLD  
TEST  
INSP  
REC  
SHIP  
INFO  
MACH  
CLN  
IND  
SELL

ASSEMBLY  
DISASSEMBLY  
NON-DESTRUCTIVE INSPECTION  
TRAVEL BETWEEN OPERATIONS  
PROCESS OPERATION  
REPAIR  
REPLACE  
MANUFACTURE  
LOAD  
UNLOAD  
TEST  
INSPECTION  
RECEIVE OF ITEM  
SHIPMENT OF ITEM  
INFORMATION  
MACHINING  
CLEAN  
INDUCTION  
SELL DATE

EVRL  
INST

REV  
WRAP  
DEP  
KIT  
PINT  
NA  
WTRG  
REL  
TAG

EVRL UNTE  
INSTALL

REVIEW  
WRAP  
DEPAINT  
KIT  
PAINT  
NOT APPLIED  
WEIGHT/BALANCE  
RECORDS  
TAG/ROUTE

HEAT REAT

ROUTE

PLATE

WELD

XRAY

TREAT

HT

RTE

PLT

WELD

XRAY

TRT

C-141 Leading Edge  
C/N 51418A/51419A

Operation Profile

Disassembly/Assembly Profile

In/Out

Process Flow

Operation Description

# OPERATION PROFILE

| NAME <u>BILL RICH</u> ALC <u>WR ALC</u> DATE <u>4-22-89</u> RCC <u>MANPSA</u> SHEET <u>1</u> OF <u>1</u> |        | WCD <u>MB032B</u> WCD DATE <u>88021</u>       |                             |                |                                |                  |                         |                |      |                         |                                    |
|----------------------------------------------------------------------------------------------------------|--------|-----------------------------------------------|-----------------------------|----------------|--------------------------------|------------------|-------------------------|----------------|------|-------------------------|------------------------------------|
| OPERATION NUMBER                                                                                         | RCC    | OPERATION DESCRIPTION                         | MANDATORY OCCURRENCE FACTOR | OPERATION TYPE | MANDATORY FLOW HOURS<br>% HRS. | MANPOWER<br>QTY. | TIME REQUIRED<br>% HRS. | EQUIPMENT CODE | QTY. | TIME REQUIRED<br>% HRS. | DATA SOURCE COMMENTS               |
| 0000                                                                                                     | MANPSA | REC                                           | 1.00                        | TRANSIT        |                                |                  |                         |                |      |                         | L. DAVIS<br>(6) 3141<br>MECHANIC   |
|                                                                                                          |        |                                               |                             | PROCESS        | 1.0                            | 1                |                         |                |      |                         | M. MORRISON<br>(6) 3615<br>PLANNER |
|                                                                                                          |        | WCD OPERATIONS LISTED FROM 003                |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        | THRU 020 REVISED PER MARKED-UP COMPUTER COPY. |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
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|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
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|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | SETUP          |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | PROCESS        |                                |                  |                         |                |      |                         |                                    |
|                                                                                                          |        |                                               |                             | TRANSIT        |                                |                  |                         | </             |      |                         |                                    |





NAME Bill Rich

## OPERATION PROFILE SAS

SHEET 2 OF 7

RCC MANPSA

S-589

DATE

ALC WR

WCD

MBO32B

WCDDATE

88021

ITEM CD

PCN

51418A

OPER

DESC

HIST

MAND

OPER

TYPE

F

HRS

MAND

SKILL

CD/LVL

QTY

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CODE

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SAS  
RCC MANPSA

DATE 5-5-89

OPERATION PROFILE

ALC WR DATE

WCD MB032B WCDDATE 88021

NAME BILL RICH

ITEM CD PCN 51418A

OPER NUMB  
RCC  
MANPSA ASSY

HIST MAND OPER MAND  
OCCR TYPE F HRS CD/LVL

QTY

% HRS

EQUIP CODE

QTY

% HRS

NOTES

50 MANPSA ASSY . . . P 0. 49534 1 . 4.0

50 MANPSA ASSY . . . P 0. 47891 1 . 4.0

60 MANPSA PROC 1.00 . T 0. . . .

60 MANPSA PROC . 1.0 S 0. . . .

60 MANPSA PROC . . . P 0. 49534 1 . 1.0

60 MANPSA PROC . . . P 0. 47891 1 . 1.0

70 MANPSA ASSY 1.00 . T 0. . . .

70 MANPSA ASSY . 1.0 S 0. . . .

70 MANPSA ASSY . . . P 0. 49534 1 . 5.0

70 MANPSA ASSY . . . P 0. 47891 1 . 5.0

80 MANPSA ASSY 1.00 . T 0. . . .

80 MANPSA ASSY . 1.0 S 0. . . .

80 MANPSA ASSY . . . P 0. 49534 1 . 4.0

SHEET 4 OF 1

SAS

OPERATION PROFILE

NAME BILL RICH

ITEM CD PCN 51418A ALC WR DATE 5-5-89 WCD MB032B WCD DATE 88021

OPER NMB RCC OPER HIST MAND OPER SKILL EQUIP  
DESC OCCR TYPE F HRS CD/LVL QTY % HRS CODE NOTES

|     |        |      |      |    |   |      |       |   |   |     |      |   |   |     |  |
|-----|--------|------|------|----|---|------|-------|---|---|-----|------|---|---|-----|--|
| 90  | MANPSA | ASSY | .    | .  | P | 20.0 | 47891 | 1 | . | 4.0 | 1191 | 1 | . | 3.5 |  |
| 90  | MANPSA | ASSY | 1.00 | .  | T | 0    |       | . | . | .   |      | . | . | .   |  |
| 90  | MANPSA | ASSY | .    | .  | S | 0    |       | . | . | .   |      | . | . | .   |  |
| 90  | MANPSA | ASSY | .    | 10 | P | 0    | 49534 | 1 | . | 2.0 |      | . | . | .   |  |
| 90  | MANPSA | ASSY | .    | .  | P | 0    | 47891 | 1 | . | 2.0 |      | . | . | .   |  |
| 100 | MANPSA | ASSY | 1.00 | .  | T | 0    |       | . | . | .   |      | . | . | .   |  |
| 100 | MANPSA | ASSY | .    | .  | S | 0    |       | . | . | .   |      | . | . | .   |  |
| 100 | MANPSA | ASSY | .    | 10 | P | 0    | 49534 | 1 | . | 4.0 |      | . | . | .   |  |
| 100 | MANPSA | ASSY | .    | .  | P | 20.0 | 47891 | 1 | . | 4.0 | 1191 | 1 | . | 3.5 |  |
| 110 | MANPSA | ASSY | 1.00 | .  | T | 0    |       | . | . | .   |      | . | . | .   |  |
| 110 | MANPSA | ASSY | .    | 10 | S | 0    |       | . | . | .   |      | . | . | .   |  |
| 110 | MANPSA | ASSY | .    | .  | P | 0    | 49534 | 1 | . | 3.0 |      | . | . | .   |  |

SAS

OPERATION PROFILE

NAME Bill Rich

ITEM CD PCN 51418A

ALC WR

DATE

5-5-89

WCD M80328 WCDDATE 88021

OPER NUMB RCC OPER HIST MAND OPER MAND SKILL  
DESC OCCR TYPE F HRS CD/LVL

RCC MANPSA

EQUIP  
CODE

NOTES

QTY % HRS

QTY % HRS

3.0

1

47891

0

P

1.00

ASSY

MANPSA

110

0

T

1.00

ASSY

MANPSA

120

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ASSY

MANPSA

120

0

P

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ASSY

MANPSA

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MANPSA

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T

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ASSY

MANPSA

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47891

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MANPSA

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OPERATION PROFILE

NAME Bill Rich

ITEM CD PCN 51418A

ALC WR

DATE

5-5-89

WCD MB032B WCDDATE 88021

RCC MANPSA

| OPER<br>NUMB | RCC    | OPER<br>DESC | HIST<br>OCCR | MAND<br>TYPE | MAND<br>F | SKILL<br>CD/LVL | QTY | %   | HRS | EQUIP<br>CODE | QTY | % | HRS | NOTES |
|--------------|--------|--------------|--------------|--------------|-----------|-----------------|-----|-----|-----|---------------|-----|---|-----|-------|
| 180          | MANPSA | ASSY         | 0.92         | T            | 0         | 49534           | 1   | 1.0 |     |               |     |   |     |       |
| 180          | MANPSA | ASSY         | 1.0          | S            | 0         |                 |     |     |     |               |     |   |     |       |
| 180          | MANPSA | ASSY         |              | P            | 0         | 49534           | 1   | 1.0 |     |               |     |   |     |       |
| 180          | MANPSA | ASSY         |              | P            | 0         | 47891           | 1   | 1.0 |     |               |     |   |     |       |
| 170          | MANPSA | ASSY         | 1.00         | T            | 0         |                 |     |     |     |               |     |   |     |       |
| 170          | MANPSA | ASSY         |              | S            | 0         |                 |     |     |     |               |     |   |     |       |
| 170          | MANPSA | ASSY         | 1.0          | P            | 0         | 49534           | 1   | 0.5 |     |               |     |   |     |       |
| 170          | MANPSA | ASSY         |              | P            | 0         | 47891           | 1   | 0.5 |     |               |     |   |     |       |
| 180          | MANPDD | TRT          | 1.00         | T            | 1.0       | 49533           | 1   | 0.5 |     |               |     |   |     |       |
| 180          | MANPDD | TRT          | 1.0          | S            | 0         |                 |     |     |     |               |     |   |     |       |
| 180          | MANPDD | TRT          |              | P            | 20.0      |                 |     |     |     |               |     |   |     |       |
| 180          | MANPDD | PNT          | 1.00         | T            | 1.0       | 49533           | 1   | 0.5 |     |               |     |   |     |       |

SAS

OPERATION PROFILE

NAME BILL RICH

RCC MANPSA

DATE

5-5-89

WCD MB032B WCDDATE 88021

ALC WR

ITEM CD PCN 51418A

OPER NUMB

RCC

MANPDD

OPER HIST MAND OPER MAND

DESC OCCR TYPE F HRS

SKILL CD/LVL

EQUIP CODE

NOTES

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6:56 FRIDAY, FEBRUARY 24, 1989 8

# PART OPERATION SUMMARY

PN: 3W22000-314      ALC: WARNER ROBBINS      RCC: MANPSA      SHEETMETAL, ADHESIVE BONDING      PCN: 51418A      WCD: MB032B      WCD DATE: 88021

OPERATION: ZPRT      NSN:      PRIMARY      OPERATION TYPE: ASSY      MATERIAL TYPE: AL

SAMPLE SIZE: 11      MISSING FLOWTIMES: 0      END ITEMS:      OUTLIERS DELETED: 1

----- MANPOWER REQUIRED -----      ----- EQUIPMENT REQUIRED -----

| SKILL | QTY | FRACTION | TIME | HOURS | CODE | CATEGORY | QTY | FRACTION | TIME | HOURS | BATCH   |
|-------|-----|----------|------|-------|------|----------|-----|----------|------|-------|---------|
|       |     |          |      |       |      |          |     |          |      |       | MIN MAX |

## HISTORICAL DATA

| ACTUAL<br>FREQ | RELATIVE FREQUENCY |       |    |    |    |    |    |    |    |    |     | D<br>VALUE | D<br>ALPHA |
|----------------|--------------------|-------|----|----|----|----|----|----|----|----|-----|------------|------------|
|                | 0                  | 10    | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |            |            |
| 0              | 0                  | 0     | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 0.437      | 0.03       |
| 5              | 0                  | 0     | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 0.275      | 1.00       |
| 10             | 0                  | 0     | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 0.165      | 1.00       |
| 15             | 0                  | 0     | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 1.000      | 0.03       |
| 20             | 0                  | 0     | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 0.422      |            |
| 25             | 18                 | ***** |    |    |    |    |    |    |    |    |     |            |            |
| 30             | 36                 | ***** |    |    |    |    |    |    |    |    |     |            |            |
| 35             | 9                  | ***** |    |    |    |    |    |    |    |    |     |            |            |
| 40             | 27                 | ***** |    |    |    |    |    |    |    |    |     |            |            |
| 45             | 0                  | ***** |    |    |    |    |    |    |    |    |     |            |            |
| >=50           | 8                  | ***** |    |    |    |    |    |    |    |    |     |            |            |

OCCURRENCE FACTOR:      OCCURRENCES: 12

DISTRIBUTION OF CHOICE: NORMAL

NAME BILL RICH ALC WR. ALC DATE 4-27-89 REC MAN/PSA SHEET 1 OF 1

| TOP ASSEMBLY                                       |     |          |  | REMOVAL OPERATION NUMBER |  | INSTALLATION OPERATION NUMBER |  | SUBASSEMBLY       |          |               |  | SAME REMOVED ITEM REINSTALLED INTO ASST. Y/N |  |
|----------------------------------------------------|-----|----------|--|--------------------------|--|-------------------------------|--|-------------------|----------|---------------|--|----------------------------------------------|--|
| ITEM NUMBER                                        | WCD | WCD DATE |  |                          |  |                               |  | ITEM NUMBER       | CHLD WCD | CHLD WCD DATE |  |                                              |  |
| PCN<br>NSN<br>PIN                                  |     |          |  |                          |  |                               |  | PCN<br>NSN<br>PIN |          |               |  |                                              |  |
| (SEE ATTACHED SHEET)                               |     |          |  |                          |  |                               |  |                   |          |               |  |                                              |  |
| PCN<br>NSN<br>PIN                                  |     |          |  |                          |  |                               |  | PCN<br>NSN<br>PIN |          |               |  |                                              |  |
| THE FOLLOWING PCN'S, 51419A(S1429A/S1480A),        |     |          |  |                          |  |                               |  |                   |          |               |  |                                              |  |
| PCN<br>NSN<br>PIN                                  |     |          |  |                          |  |                               |  | PCN<br>NSN<br>PIN |          |               |  |                                              |  |
| ON RCC MANPSA FOR WCD MB032B CONSTITUTE A          |     |          |  |                          |  |                               |  |                   |          |               |  |                                              |  |
| PCN<br>NSN<br>PIN                                  |     |          |  |                          |  |                               |  | PCN<br>NSN<br>PIN |          |               |  |                                              |  |
| REPLACEMENT OF APPROXIMATELY 98% OF ALL COMPONENT  |     |          |  |                          |  |                               |  |                   |          |               |  |                                              |  |
| PCN<br>NSN<br>PIN                                  |     |          |  |                          |  |                               |  | PCN<br>NSN<br>PIN |          |               |  |                                              |  |
| PARTS:                                             |     |          |  |                          |  |                               |  |                   |          |               |  |                                              |  |
| PCN<br>NSN<br>PIN                                  |     |          |  |                          |  |                               |  | PCN<br>NSN<br>PIN |          |               |  |                                              |  |
| "DISASSEMBLY / ASSEMBLY" FOR THESE "TOP ASSEMBLYS" |     |          |  |                          |  |                               |  |                   |          |               |  |                                              |  |
| PCN<br>NSN<br>PIN                                  |     |          |  |                          |  |                               |  | PCN<br>NSN<br>PIN |          |               |  |                                              |  |
| AS NOT APPLICABLE.                                 |     |          |  |                          |  |                               |  |                   |          |               |  |                                              |  |
| PCN<br>NSN<br>PIN                                  |     |          |  |                          |  |                               |  | PCN<br>NSN<br>PIN |          |               |  |                                              |  |
| H.V. "Bill" Rich,                                  |     |          |  |                          |  |                               |  |                   |          |               |  |                                              |  |
| PCN<br>NSN<br>PIN                                  |     |          |  |                          |  |                               |  | PCN<br>NSN<br>PIN |          |               |  |                                              |  |
| 4-28-89                                            |     |          |  |                          |  |                               |  |                   |          |               |  |                                              |  |
| PCN<br>NSN<br>PIN                                  |     |          |  |                          |  |                               |  | PCN<br>NSN<br>PIN |          |               |  |                                              |  |
|                                                    |     |          |  |                          |  |                               |  |                   |          |               |  |                                              |  |
| PCN<br>NSN<br>PIN                                  |     |          |  |                          |  |                               |  | PCN<br>NSN<br>PIN |          |               |  |                                              |  |
|                                                    |     |          |  |                          |  |                               |  |                   |          |               |  |                                              |  |
| PCN<br>NSN<br>PIN                                  |     |          |  |                          |  |                               |  | PCN<br>NSN<br>PIN |          |               |  |                                              |  |
|                                                    |     |          |  |                          |  |                               |  |                   |          |               |  |                                              |  |
| PCN<br>NSN<br>PIN                                  |     |          |  |                          |  |                               |  | PCN<br>NSN<br>PIN |          |               |  |                                              |  |
|                                                    |     |          |  |                          |  |                               |  |                   |          |               |  |                                              |  |

LSC-2(KK)SA



ENTER 6 POSITION PRODUCTION NR. AND SEND =514186

\*\*\*\*\*

DATA BASE MC OPENED BY FGM MMPPA AT TIME 12.38.34

DTE-LAST-UPDT = 88/01/27

TME-LAST-UPDT = 20.58.46

CYCLE NUMBER = 22803

\*\*\*\*\*

OPTION 3 - DISPLAY BOM WITH MFG PART NRS BY PDN

PDN EI-IDENTITY ENGR OPER SUCC RGC DATE-EST DATE-LA INDEX PAGE

514186 1560009189170JH MANEBF 00100 100 J 66248 87191 82

COMP-STOCK-NR UFA STD MI C M UI E P I UNIT-PRICE \*I&S\* MFG-PART-NR FSCM

1560P003561F 1 100 BM A D EA N M U 221.54 B X3W22005-102CAF 98897

✓1560P071803F 1 75 BM A D EA N M U 95.57 B ✓3W22194-104STAL 99999

1560P078562F 1 100 BM A D EA N M U 137.92 B X3W22000-110DOUB 98897

1560P078564F 1 100 BM A D EA N M U 212.66 B X3W22000-112DOUB 98897

1560P078566F 2 100 BM A D EA N M U 46.70 B 2 X3W22000-120 DOU 99999

1560P078570F 1 100 BM A D EA N M U 73.85 B 1 X3W22000-120DOUB 98897

1560P078574F 1 100 BM A D EA N M U 92.31 B X3W22000-146DOUB 98897

1560P078576F 1 100 BM A D EA N M U 92.31 B X3W22000-146DOUB 99999

1560P078578F 1 100 BM A D EA N M U 85.16 B X3W22000-230STR 99999

1560P082735F 1 100 BM A D EA N M U 87.53 B X3W22000-234STR 99999

1560P082737F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082739F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082741F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082743F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082745F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082747F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082749F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082751F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082753F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082755F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082757F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082759F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082761F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082763F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082765F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082767F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082769F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082771F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082773F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082775F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082777F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082779F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082781F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082783F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082785F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082787F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082789F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082791F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082793F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082795F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082797F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082799F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082801F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082803F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082805F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082807F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082809F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082811F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082813F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082815F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082817F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082819F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082821F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082823F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

1560P082825F 1 100 BM A D EA N M U 71.63 B X3W22000-234STR 99999

ENTER 6 POSITION PRODUCTION NR AND SEND =51419A

\*\*\*\*\*

DATA BASE MO OPENED BY PGM MMPPA AT TIME 12.39.16

DTE-LAST-UPDT = 88/01/27

TME-LAST-UPDT = 20.58.46

CYCLE NUMBER = 22803

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OPTION 3 - DISPLAY BOM WITH MFG PART NRS BY PDN

PAGE

| PDN                | EI-IDENTITY     | ENGR   | OPER  | OCC | RGC | DATE-EST | DATE-LA | INDEX |   |            |       |                   |       |
|--------------------|-----------------|--------|-------|-----|-----|----------|---------|-------|---|------------|-------|-------------------|-------|
| 51419A             | 1530009189139JH | MANEBF | 00100 | 100 | J   | 66248    | 87191   | 85    |   |            |       |                   |       |
| CCMP-STOCK-NR      | UPA             | STD    | MI    | C   | M   | UI       | E       | P     | I | UNIT-PRICE | *I&S* | MFG-PART-NR       | FSCM  |
| ✓ 1530P000510F     | 2               | 100    | BM    | A   | D   | EA       | N       | M     | U | 129.23     | B     | 3W22000-295PAN    | 98897 |
| ✓ 1530P000510F     | 1               | 100    | BM    | A   | D   | EA       | N       | M     | U | 99.91      | B     | 3W22000-297PAN    | 98897 |
| ✓ 1530P000510F     | 1               | 100    | BM    | A   | D   | EA       | N       | M     | U | 263.90     | B     | 3W22007-103CAP    | 98897 |
| ✓ 1530P078561F     | 1               | 100    | BM    | A   | D   | EA       | N       | M     | U | 175.93     | B     | 3W22000-109DOUB   | 98897 |
| ✓ 1530P078563F     | 1               | 100    | BM    | A   | D   | EA       | N       | M     | U | 160.73     | B     | 3W22000-111DOUB   | 98897 |
| ✓ 1530P078569F     | 1               | 100    | BM    | A   | D   | EA       | N       | M     | U | 87.97      | B     | 3W22000-143DOUB   | 98897 |
|                    |                 |        |       |     |     |          |         |       |   |            |       | 3W22000-145DOUB   | 99999 |
| ✓ 1530P078573F     | 1               | 100    | BM    | A   | D   | EA       | N       | M     | U | 142.27     | B     | 3W22000-2298TRA   | 98897 |
| ✓ 1530P078577F     | 1               | 100    | BM    | A   | D   | EA       | N       | M     | U | 63.16      | B     | 3W22000-2338TRA   | 98897 |
| ✓ 1530P082733F     | 1               | 100    | BM    | A   | D   | EA       | N       | M     | U | 87.03      | B     | 3W22000-309DOUB   | 98897 |
| ✓ 1530P142670F     | 1               | 41     | BM    | A   | D   | EA       | N       | M     | U | 601.45     | B     | ✓ 3W22092-103PAN  | 98897 |
| ✓ 1530000127710JH  | 1               | 100    | BM    | A   | D   | EA       | N       | M     | U | 66.38      | B     | ✓ 3470187-10185AL | 98897 |
| ✓ 15300017238270JH | 1               | 100    | BM    | A   | D   | EA       | N       | M     | U | 654.98     | B     | 3W22000-1030BKI   | 98897 |
| ✓ 1530002507399JH  | 1               | 100    | BM    | A   | D   | EA       | N       | M     | U | 169.42     | B     | 3W22000-1251SKI   | 98897 |
| ✓ 1530002936116JH  | 1               | 75     | BM    | A   | D   | EA       | N       | M     | U | 140.57     | B     | ✓ 3W22194-1038TAL | 98897 |
| ✓ 1530003176727JH  | 1               | 100    | BM    | A   | D   | EA       | N       | M     | U | 161.36     | B     | ✓ 3W22000-1061SKI | 98897 |
| ✓ 1530005700260JH  | 1               | 25     | BM    | A   | D   | EA       | P       | M     | U | 718.06     | B     | ✓ 3W22067-113DOOR | 98897 |
| ✓ 1530007389789JH  | 1               | 100    | BM    | A   | D   | EA       | N       | M     | U | 12.58      | B     | ✓ 3470154-103FINE | 98897 |
| ✓ 1530007389820JH  | 1               | 100    | BM    | A   | D   | EA       | N       | M     | U | 77.50      | B     | ✓ 3470150-103RET  | 98897 |
| ✓ 1530010101640JH  | 1               | 100    | BM    | A   | D   | EA       | N       | M     | U | 60.62      | B     | 3W22107-101RITA   | 98897 |
| ✓ 153001030377JH   | 2               | 100    | BM    | A   | D   | EA       | N       | M     | U | 62.13      | B     | 3W22000-119       | 98897 |
| ✓ 1530012626330JH  | 1               | 100    | BM    | A   | D   | EA       | N       | M     | U | 149.67     | B     | 3W22000-119DOUB   | 98897 |
|                    |                 |        |       |     |     |          |         |       |   |            |       | 3W22005-101       | 98897 |
|                    |                 |        |       |     |     |          |         |       |   |            |       | 3W22005-101CAP    | 98897 |
| 3310008071457      | 0               | 0      | BM    | L   | I   | HD       | N       | F     | U | 3.03       | B     | 348311-02 KLB     | 98897 |
|                    |                 |        |       |     |     |          |         |       |   |            |       | MS21042-3         | 66044 |
|                    |                 |        |       |     |     |          |         |       |   |            |       | MS21042-3         | 96506 |
|                    |                 |        |       |     |     |          |         |       |   |            |       | MS21042-3 NUT     | 61344 |
| 3310009417413      | 0               | 0      | BM    | L   | I   | HD       | N       | F     | U | .50        | B     | LS396483M         | 98897 |

OPTION 3 - DISPLAY BOM WITH MFG PART NRS BY PDN

PAGE

TO TERMINATE THIS OPTION ENTER XEOF AND SEND

ITER 6 POSITION PRODUCTION NR AND SEND =31427A

\*\*\*\*\*  
DATA BASE MC OPENED BY PGM MMPPA AT TIME 12.41:03  
DTE-LAST-UPDT = 88/01/27.  
TME-LAST-UPDT = 20.58.46.  
CYCLE NUMBER = 22803  
\*\*\*\*\*

OPTION 3 - DISPLAY BOM WITH MFG PART NRS BY PDN PAGE  
PDN: EI-IDENTITY ENGR OPER QCC RGC DATE-EST DATE-LA INDEX  
51429A 1560007325512JH MANEBF 00100 100 J 73173 27191 86  
COMP-STOCK-NR UPA STD MI C M UI E P I UNIT-PRICE \*125\* MFG-PART-NR FSCM  
1560P000510F 2 100 BM A D EA N M U 129.23 B JW22000-285PAN 98897  
1560P081907F 1 100 BM A D EA N M U 187.83 B JW22001-10930UE 98897  
1560P082736F 1 100 BM A D EA N M U 52.13 B JW22001-141DOUS 98897  
1560P085690F 2 100 BM A D EA N M U 57.73 B JW22001-119DOUS 98897  
✓ 1560P111725F 1 60 BM A D EA N M U 217.28 B JW22006-103CAP 98897  
1560P111727F 1 100 BM A D EA N M U 222.63 B JW22006-105CAP 98897  
1560001728655JH 1 100 BM A D EA N 3 U 668.06 B JW22001-103OSKI 98897  
1560003176708JH 1 100 BM A D EA N M U 155.30 B JW22001-111DOUS 98897  
1560003961751JH 1 100 BM A D EA N M U 182.45 B JW22001-125ISKI 98897  
1560003961752JH 1 100 BM A D EA N M U 170.50 B JW22001-105ISKI 98897  
✓ 1560007383134JH 2 10 BM A D EA N 3 U 187.41 B JW22022-113DOUS 98897  
1560010101540JH 2 0 BM A D EA N M U 88.88 B JW22137-101RETA 98897  
15100083971467 0 0 BM L 1 HD N F L 0.00 B KED1041-3 98897  
KED1042-3 98897  
KED1041-3 NUT 98897  
ED10009419413 1 0 BM L 1 HD N 3 U .50 B LST7546JH 98897  
✓ ED400007320PSE 2 20 BM A D EA N 3 U 26.81 B JW22184-104 98897  
JW22184-104RINE 98897

OPTION 3 - DISPLAY BOM WITH MFG PART NRS BY PDN  
TO TERMINATE THIS OPTION ENTER XEIP AND SEND

PAGE

ENTER 6 POSITION PRODUCTION NR AND SEND =51480A

\*\*\*\*\*  
DATA BASE MC OPENED BY PGM MMPPA AT TIME 12.41.47  
DTE-LAST-UPDT = 88/01/27.  
TIME-LAST-UPDT = 20.58.46.  
CYCLE NUMBER = 22803  
\*\*\*\*\*

OPTION 3 - DISPLAY BOM WITH MFG PART NRS BY PDN  
PDN EI-IDENTITY ENGR OPER OCC RGC DATE-EST DATE-LA INDEX  
51480A 1560007385513JH MANEBF 00100 100 J 73173 87191 92

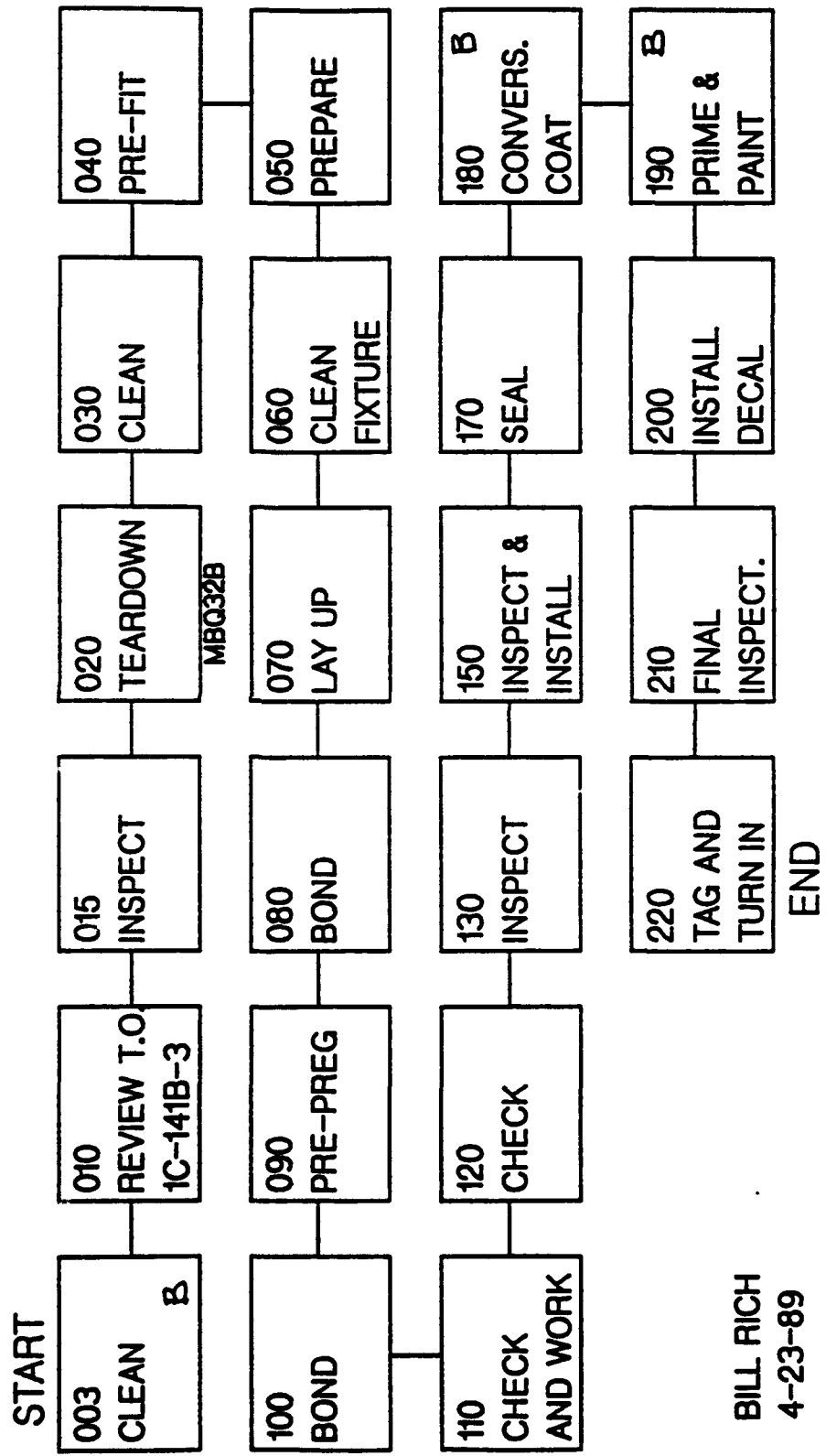
| COMP-STOCK-NR     | UPA | STD | MI | C | M | UI | E | P | I | UNIT-PRICE | *I&S* | MFG-PART-NR       | FSCM  |
|-------------------|-----|-----|----|---|---|----|---|---|---|------------|-------|-------------------|-------|
| 1560P081908F      | 1   | 100 | BM | A | D | EA | N | M | U | 174.85     | B     | 3W22001-110DOUB   | 98897 |
| 1560P081910F      | 1   | 100 | BM | A | D | EA | N | M | U | 171.59     | B     | 3W22001-112DOUB   | 99995 |
| 1560P082736F      | 1   | 100 | BM | A | D | EA | N | M | U | 52.13      | B     | 3W22001-161DOUB   | 98897 |
| 1560P085691F      | 2   | 100 | BM | A | D | EA | N | M | U | 69.50      | B     | 3W22001-120DOU    | 99997 |
| ✓ 1560P111726F    | 1   | 77  | BM | A | D | EA | N | M | U | 191.10     | B     | ✓ 3W22006-104CAP  | 98897 |
| ✓ 1560P111728F    | 1   | 80  | BM | A | D | EA | N | M | U | 354.00     | B     | ✓ 3W22008-106CAP  | 98897 |
| 1560001728659JH   | 1   | 100 | BM | A | D | EA | N | 3 | U | 93.77      | B     | 3W22001-104OSKI   | 98897 |
| 1560003761750JH   | 1   | 100 | BM | A | D | EA | N | M | U | 183.53     | B     | 3W22001-106ISKI   | 98897 |
| 1560003961754JH   | 1   | 100 | BM | A | D | EA | N | M | U | 167.20     | B     | 3W22001-126ISKI   | 98897 |
| ✓ 1560007383138JH | 2   | 20  | BM | A | D | EA | N | 3 | U | 2056.29    | B     | ✓ 3W22022-114DOOR | 99995 |
| ✓ 1560010101640JH | 1   | 0   | BM | A | D | EA | N | M | U | 68.68      | B     | ✓ 3W22107-101RETA | 99995 |
| 1560011021168JH   | 2   | 100 | BM | A | D | EA | N | 3 | U | 47.73      | B     | 3W22000-266PAN    | 98897 |
| 3310018071487     | 0   | 0   | BM | L | I | RD | N | F | U | 3.03       | B     | MED1042-3         | 83044 |
|                   |     |     |    |   |   |    |   |   |   |            |       | MED1042-3         | 96901 |
|                   |     |     |    |   |   |    |   |   |   |            |       | MED1042-3 NUT     | 81047 |
| ✓ 3310018071487   | 0   | 0   | BM | L | I | RD | N | F | U | .50        | B     | LSUP8480M         | 98897 |
| ✓ 3310017390754   | 2   | 20  | BM | A | D | EA | N | F | U | 120.90     | B     | ✓ 3W22129-103HINE | 98897 |

OPTION 3 - DISPLAY BOM WITH MFG PART NRS BY PDN  
TO TERMINATE THIS OPTION ENTER WEEF AND SEND

PAGE

# MANPSA

WCD=MB032B, PCN=51418A/51419A C-141 LEADING EDGE  
(WING)



# AFCLC TECHNOLOGY INSERTION PROGRAM OPERATION PROFILE INSTRUCTIONS (CONTINUED)

DATA ITEM

DESCRIPTION

SOURCE

RCC

ENTER RCC NAME FOR THAT OPERATION. IF THIS RCC NAME IS NOT THE PRIMARY RCC, THE OPERATION WILL BE A BACK SHOP OPERATION. IF BACK SHOP, ENTER ONLY MANDATORY OCCURRENCE FACTOR AND MANDATORY FLOW HOURS. (6 CHARACTERS)

RCC WILL BE LISTED UNDER THE OPERATION NO. IN COLUMN 19 OF WCD.

OPERATION  
DESCRIPTION

ENTER AN ABBREVIATED DESCRIPTION OF WORK BEING PERFORMED. LIMIT FOUR CHARACTERS. USE THE FOLLOWING ABBREVIATIONS AND CREATE ADDITIONAL ABBREVIATIONS AS REQUIRED.

ITEM 20 OF WCD

EVALUATE

INST

INSTALL

ABBREVIATION

DESCRIPTION

ASSY  
DIS  
NDI  
MOVE  
PROC  
REP  
REPL  
MFG  
LOAD  
UNLD  
TEST  
INSP  
REC  
SHIP  
INFO  
MACH  
CLN  
IND  
SELL

ASSEMBLY  
DISASSEMBLY  
NON-DESTRUCTIVE INSPECTION  
TRAVEL BETWEEN OPERATIONS  
PROCESS OPERATION  
REPAIR  
REPLACE  
MANUFACTURE  
LOAD  
UNLOAD  
TEST  
INSPECTION  
RECEIVE OF ITEM  
SHIPMENT OF ITEM  
INFORMATION  
MACHINING  
CLEAN  
INDUCTION  
SELL DATE

REV  
WRAP  
DEP  
KIT  
PNT  
NA  
WTBL  
REC  
TAG

REVIEW  
WRAP  
DEPAINT  
KIT  
PAINT  
NAT APPLIED  
WEIGHT/BALANCE  
RECORD  
TAG/ROUTE

HT

HEAT TREAT

RTE

ROUTE

PLT

PLATE

WELD  
XRAY  
TREAT

WELD  
XRAY  
TREAT

C-141 Aileron  
C/N 05502A/05503A

Operation Profile

Disassembly/Assembly Profile

In/Out

Process Flow

Operation Description

NAME BILL RICH ALC WR ALC WR DATE 4-20-89 RCC MAN PSA 1 SHEET 1 OF 1

| WCD MB017Y WCD DATE 88141 |     |                                                        |                                       |                   |                         |      |                         |      |           |      |                                                                                         |
|---------------------------|-----|--------------------------------------------------------|---------------------------------------|-------------------|-------------------------|------|-------------------------|------|-----------|------|-----------------------------------------------------------------------------------------|
| OPERATION<br>NUMBER       | RCC | OPERATION<br>DESCRIPTION                               | MANDATORY<br>OCCUR-<br>ANCE<br>FACTOR | OPERATION<br>TYPE | MANDATORY<br>FLOW HOURS |      | MAINPOWER               |      | EQUIPMENT |      | DATA SOURCE<br>COMMENTS                                                                 |
|                           |     |                                                        |                                       |                   | %                       | HRS. | BKILL<br>CODE/<br>LEVEL | QTY. | %         | HRS. |                                                                                         |
| 0000<br>IN-ANPSA          |     | REC                                                    | 1.00                                  | TRANSIT           |                         |      |                         |      |           |      | J. DERR<br>(G) 4161<br>MECHANIC<br>J. JACKSON<br>PLANNER<br>(G) 3615                    |
|                           |     | ↑                                                      |                                       | PROCESS           | 1.0                     |      |                         | 1    |           | 0.1  |                                                                                         |
|                           |     | WCD OPERATIONS<br>LISTED FROM Q10                      |                                       | TRANSIT           |                         |      |                         |      |           |      |                                                                                         |
|                           |     |                                                        |                                       | SETUP             |                         |      |                         |      |           |      |                                                                                         |
|                           |     |                                                        |                                       | PROCESS           |                         |      |                         |      |           |      |                                                                                         |
|                           |     | THRU 470. REVISED<br>PER MARKED - UP<br>COMPUTER COPY. |                                       | TRANSIT           |                         |      |                         |      |           |      |                                                                                         |
|                           |     |                                                        |                                       | SETUP             |                         |      |                         |      |           |      |                                                                                         |
|                           |     |                                                        |                                       | PROCESS           |                         |      |                         |      |           |      |                                                                                         |
|                           |     | BILL RICH<br>4-20-89                                   |                                       | TRANSIT           |                         |      |                         |      |           |      |                                                                                         |
|                           |     |                                                        |                                       | SETUP             |                         |      |                         |      |           |      |                                                                                         |
|                           |     |                                                        |                                       | PROCESS           |                         |      |                         |      |           |      |                                                                                         |
|                           |     | ↓                                                      |                                       | TRANSIT           |                         |      |                         |      |           |      |                                                                                         |
|                           |     |                                                        |                                       | SETUP             |                         |      |                         |      |           |      |                                                                                         |
|                           |     |                                                        |                                       | PROCESS           |                         |      |                         |      |           |      |                                                                                         |
| 9999<br>ANPSA             |     | SELL                                                   | 1.00                                  | TRANSIT           |                         |      |                         |      |           |      | S. WILLIAMS<br>SUPERVISOR<br>(G) 4161<br>D. MOORE<br>ALTERNATE<br>J. JACKSON<br>PLANNER |
|                           |     |                                                        |                                       | SETUP             |                         |      |                         |      |           |      |                                                                                         |
|                           |     |                                                        |                                       | PROCESS           |                         |      |                         |      |           | 2.0  |                                                                                         |





OPERATION PROFILE SAS

| NAME | ITEM CD | PCN  | 05502A | OPER | DESC | HIST | MAND | OPER | MAND  | WCD | MBD17Y | ALC | WR   | DATE | WCD | DATE | 88141 | RCC | MANPSA | QTY | % | HRS | NOTES        |
|------|---------|------|--------|------|------|------|------|------|-------|-----|--------|-----|------|------|-----|------|-------|-----|--------|-----|---|-----|--------------|
|      |         |      |        |      |      |      |      |      |       |     |        |     |      |      |     |      |       |     |        |     |   |     |              |
| 50   | MANPSA  | DIS  |        |      |      | 1.0  | S    | 0    |       |     |        |     |      |      |     |      |       |     |        |     |   |     | (WCD MBA17Y) |
| 50   | MANPSA  | DIS  |        |      |      |      | P    | 0    | 49533 | 2   |        | 4.0 |      |      |     |      |       |     |        |     |   |     | (B.D.C. 169) |
| 60   | MANPSA  | PROC |        |      |      |      | T    | 0    |       |     |        |     |      |      |     |      |       |     |        |     |   |     |              |
| 60   | MANPSA  | PROC |        |      |      | 1.0  | S    | 0    |       |     |        |     |      |      |     |      |       |     |        |     |   |     |              |
| 60   | MANPSA  | PROC |        |      |      |      | P    | 0    | 47891 | 3   |        | 4.0 | 9450 |      |     |      |       |     |        |     |   |     |              |
| 70   | MANPSA  | PROC |        |      |      |      | T    | 0    |       |     |        |     |      |      |     |      |       |     |        |     |   |     |              |
| 70   | MANPSA  | PROC |        |      |      | 1.0  | S    | 0    |       |     |        |     |      |      |     |      |       |     |        |     |   |     |              |
| 70   | MANPSA  | PROC |        |      |      |      | P    | 0    | 49533 | 3   |        | 2.0 |      |      |     |      |       |     |        |     |   |     |              |
| 80   | MANPSA  | DIS  |        |      |      |      | T    | 0    |       |     |        |     |      |      |     |      |       |     |        |     |   |     |              |
| 80   | MANPSA  | DIS  |        |      |      | 1.0  | S    | 0    |       |     |        |     |      |      |     |      |       |     |        |     |   |     |              |
| 80   | MANPSA  | DIS  |        |      |      |      | P    | 0    | 47891 | 2   |        | 3.0 |      |      |     |      |       |     |        |     |   |     |              |
| 90   | MANPSA  | INSP |        |      |      |      | T    | 0    |       |     |        |     |      |      |     |      |       |     |        |     |   |     |              |

WCD MBC17Y

9:46 TUESDAY, MARCH 28, 1989 15

SHEET 1 OF 1

| NAME               |     | OPERATION PROFILE SAS |      |      |      |            |      |                |       |            |       |
|--------------------|-----|-----------------------|------|------|------|------------|------|----------------|-------|------------|-------|
| ITEM CD PCN 05502A |     | ALC WR                |      | DATE |      | WCD MB017Y |      | WCD DATE 88141 |       | RCC MANPSA |       |
| OPER NUMB          | RCC | MANPSA                | INS  | DIS  | ASSY | HIST       | MAND | OPER           | MAND  | SKILL      | EQUIP |
|                    |     |                       |      |      |      | OCGR       | TYPE | F              | HRS   | CD/LVL     | CODE  |
| 90                 |     | MANPSA                | INS  | P    |      | 1.0        | S    | 0.             |       |            |       |
| 90                 |     | MANPSA                | INS  | P    |      |            |      | 0.             | 49533 | 2          | 0.5   |
| 100                |     | MANPSA                | DIS  | T    |      |            |      | 0.             |       |            |       |
| 100                |     | MANPSA                | DIS  |      |      | 1.0        | S    | 0.             |       |            |       |
| 100                |     | MANPSA                | DIS  | P    |      |            |      | 0.             | 49533 | 2          | 4.0   |
| 110                |     | MANPSA                | ASSY | T    |      |            |      | 0.             |       |            |       |
| 110                |     | MANPSA                | ASSY |      |      | 1.0        | S    | 0.             |       |            |       |
| 110                |     | MANPSA                | ASSY | P    |      |            |      | 0.             | 47891 | 2          | 65.0  |
| 120                |     | MANPSA                | DIS  | T    |      |            |      | 0.             |       |            |       |
| 120                |     | MANPSA                | DIS  |      |      | 1.0        | S    | 0.             |       |            |       |
| 120                |     | MANPSA                | DIS  | P    |      |            |      | 0.             | 47891 | 1          | 10.0  |
| 130                |     | MANPCP                | INS  | T    |      |            |      | 1.0            | 47891 | 1          | .5    |
| 130                |     | MANPCP                | INS  |      |      | 1.0        | S    | 0.             |       |            |       |

INSPECTOR  
COMES TO  
B.169 FROM  
B.165 (LMS)

OPERATION PROFILE SAS

SHEET \_\_\_ OF \_\_\_

| NAME | ITEM CD | PCN  | 05502A | OPER   | HIST  | MAND | OPER | MAND  | SKILL | CD/LVL | QTY | % | HRS | EQUIP | CODE | QTY | % | HRS | NOTES |
|------|---------|------|--------|--------|-------|------|------|-------|-------|--------|-----|---|-----|-------|------|-----|---|-----|-------|
|      | ALC     | WR   | WCD    | MB017Y | 1     | WCD  | DATE | 88141 |       |        |     |   |     |       |      |     |   |     |       |
| 130  | MANPCP  | INS  | P      | 0.5    |       |      |      |       |       |        |     |   |     |       |      |     |   |     |       |
| 140  | MANPCP  | INS  | T      | 0      |       |      |      |       |       |        |     |   |     |       |      |     |   |     |       |
| 140  | MANPCP  | INS  | S      | 0      |       |      |      |       |       |        |     |   |     |       |      |     |   |     |       |
| 140  | MANPCP  | INS  | P      | 0.5    |       |      |      |       |       |        |     |   |     |       |      |     |   |     |       |
| 150  | MANPSC  | INS  | T      | 1.0    | 47891 | 1    | 0.5  |       |       |        |     |   |     |       |      |     |   |     |       |
| 150  | MANPSC  | INS  | S      | 0      |       |      |      |       |       |        |     |   |     |       |      |     |   |     |       |
| 150  | MANPSC  | INS  | P      | 0      | 47891 | 1    | 18.0 |       |       |        |     |   |     |       |      |     |   |     |       |
| 160  | MANPSC  | ASSY | T      | 0      |       |      |      |       |       |        |     |   |     |       |      |     |   |     |       |
| 160  | MANPSC  | ASSY | S      | 0      |       |      |      |       |       |        |     |   |     |       |      |     |   |     |       |
| 160  | MANPSC  | ASSY | P      | 0      | 47891 | 1    | 24.0 |       |       |        |     |   |     |       |      |     |   |     |       |
| 170  | MANPSC  | PROC | T      | 0      |       |      |      |       |       |        |     |   |     |       |      |     |   |     |       |
| 170  | MANPSC  | PROC | S      | 0      |       |      |      |       |       |        |     |   |     |       |      |     |   |     |       |



| NAME               |        | OPERATION PROFILE |      |       |      |           |       |               |     |            |     | SAS        |  |
|--------------------|--------|-------------------|------|-------|------|-----------|-------|---------------|-----|------------|-----|------------|--|
| ITEM CD PCN 05302A |        | ALC WR            |      | DATE  |      | WCD MB017 |       | WCDDATE 88141 |     | RCC MANPSA |     |            |  |
| OPER NOMB          | RCC    | OPER DESC         | HIST | MAND  | OPER | MAND      | SKILL | CD/LVL        | QTY | %          | HRS | EQUIP CODE |  |
| 170                | MANPSA | PROC              | .    | P     | 0    | 0         | 49533 | 2             | .   | 4.0        | .   | .          |  |
| 180                | MANPSA | PROC              | .    | T     | 0    | 0         | .     | .             | .   | .          | .   | .          |  |
| 180                | MANPSA | PROC              | .    | 1.0 S | 0    | 0         | .     | .             | .   | .          | .   | .          |  |
| 180                | MANPSA | PROC              | .    | P     | 0    | 0         | 49533 | 2             | .   | 1.0        | .   | .          |  |
| 190                | MANPSA | INSR              | .    | T     | 0    | 0         | .     | .             | .   | .          | .   | .          |  |
| 190                | MANPSA | INSR              | .    | 1.0 S | 0    | 0         | .     | .             | .   | .          | .   | .          |  |
| 190                | MANPSA | INSR              | .    | P     | 0    | 0         | 47891 | 2             | .   | 0.3        | .   | .          |  |
| 200                | MANPSA | ASSY              | .    | T     | 0    | 0         | .     | .             | .   | .          | .   | .          |  |
| 200                | MANPSA | ASSY              | .    | 1.0 S | 0    | 0         | .     | .             | .   | .          | .   | .          |  |
| 200                | MANPSA | ASSY              | .    | P     | 0    | 0         | 47891 | 1             | .   | 26.0       | .   | .          |  |
| 200                | MANPSA | ASSY              | .    | P     | 0    | 0         | 49533 | 1             | .   | 26.0       | .   | .          |  |
| 210                | MANPSA | ASSY              | .    | T     | 0    | 0         | .     | .             | .   | .          | .   | .          |  |
| 210                | MANPSA | ASSY              | .    | 1.0 S | 0    | 0         | .     | .             | .   | .          | .   | .          |  |

## OPERATION PROFILE SAS

SHEET \_\_\_\_ OF \_\_\_\_

| NAME | ITEM CD | PCN  | 05502A | ALC  | WR   | WCD  | MBD17Y | WCD   | DATE   | 88141 | QTY | %   | HRS | EQUIP | CODE | QTY | % | HRS | NOTES |
|------|---------|------|--------|------|------|------|--------|-------|--------|-------|-----|-----|-----|-------|------|-----|---|-----|-------|
| OPER | RCC     | DESC | OPER   | HIST | MAND | OPER | MAND   | SKILL | CD/LVL | QTY   | %   | HRS |     |       |      |     |   |     |       |
| NUMB |         |      |        | OCOR | TYPE | F    | HRS    |       |        |       |     |     |     |       |      |     |   |     |       |
| 210  | MANPSA  | ASSY | .      | .    | P    | 0    | 49533  | 2     | .      | 4.0   | .   | .   | .   | .     | .    | .   | . | .   | .     |
| 240  | MANPSA  | INSP | .      | .    | T    | 0    | .      | .     | .      | .     | .   | .   | .   | .     | .    | .   | . | .   | .     |
| 240  | MANPSA  | INSP | .      | 1.0  | S    | 0    | .      | .     | .      | .     | .   | .   | .   | .     | .    | .   | . | .   | .     |
| 240  | MANPSA  | INSP | .      | .    | P    | 0    | 47891  | 1     | .      | 32.0  | .   | .   | .   | .     | .    | .   | . | .   | .     |
| 250  | MANPSA  | INSP | .      | .    | T    | 0    | .      | .     | .      | .     | .   | .   | .   | .     | .    | .   | . | .   | .     |
| 250  | MANPSA  | INSP | .      | 1.0  | S    | 0    | .      | .     | .      | .     | .   | .   | .   | .     | .    | .   | . | .   | .     |
| 250  | MANPSA  | INSP | .      | .    | P    | 0    | 47891  | 1     | .      | 50.0  | .   | .   | .   | .     | .    | .   | . | .   | .     |
| 260  | MANPSD  | REF  | .      | .    | T    | 0.0  | 17891  | 1     | .      | 0.5   | .   | .   | .   | .     | .    | .   | . | .   | .     |
| 260  | MANPSD  | REF  | .      | 1.0  | S    | 0    | .      | .     | .      | .     | .   | .   | .   | .     | .    | .   | . | .   | .     |
| 260  | MANPSD  | REF  | .      | .    | P    | 1.0  | .      | .     | .      | .     | .   | .   | .   | .     | .    | .   | . | .   | .     |
| 270  | MANPSA  | MOVE | .      | .    | T    | 1.0  | 17891  | 1     | .      | 0.5   | .   | .   | .   | .     | .    | .   | . | .   | .     |
| 270  | MANPSA  | MOVE | .      | 1.0  | S    | 0    | .      | .     | .      | .     | .   | .   | .   | .     | .    | .   | . | .   | .     |

WCD MBD17Y  
(MANPSA3)

SHEET \_\_\_ OF \_\_\_

## OPERATION PROFILE SAS

| NAME |      |     | ALC WR |      |        | DATE |      |       | RCC MANPSA |        |     | SHEET |      |     | OF |     |       |
|------|------|-----|--------|------|--------|------|------|-------|------------|--------|-----|-------|------|-----|----|-----|-------|
| ITEM | CD   | PCN | 05502A | WCD  | MB017Y | WCD  | DATE | 88141 | QTY        | %      | HRS | EQUIP | CODE | QTY | %  | HRS | NOTES |
| OPER | NUMB | RCC | MANPSA | MOVE | HIST   | MAND | OPER | MAND  | SKILL      | CD/LVL | QTY | %     | HRS  |     |    |     |       |
| 270  |      |     |        |      |        |      |      |       |            |        |     |       |      |     |    |     |       |
| 280  |      |     |        |      |        |      |      |       |            |        |     |       |      |     |    |     |       |
| 280  |      |     |        |      |        |      |      |       |            |        |     |       |      |     |    |     |       |
| 280  |      |     |        |      |        |      |      |       |            |        |     |       |      |     |    |     |       |
| 290  |      |     |        |      |        |      |      |       |            |        |     |       |      |     |    |     |       |
| 290  |      |     |        |      |        |      |      |       |            |        |     |       |      |     |    |     |       |
| 290  |      |     |        |      |        |      |      |       |            |        |     |       |      |     |    |     |       |
| 300  |      |     |        |      |        |      |      |       |            |        |     |       |      |     |    |     |       |
| 300  |      |     |        |      |        |      |      |       |            |        |     |       |      |     |    |     |       |
| 300  |      |     |        |      |        |      |      |       |            |        |     |       |      |     |    |     |       |
| 310  |      |     |        |      |        |      |      |       |            |        |     |       |      |     |    |     |       |
| 310  |      |     |        |      |        |      |      |       |            |        |     |       |      |     |    |     |       |
| 310  |      |     |        |      |        |      |      |       |            |        |     |       |      |     |    |     |       |

WCD MBD 17Y  
(MANPDAS)

INSPECTOR FROM  
BLDG 165

WCD MBD 17Y  
(MANPDAS)

INSPECTOR FROM  
BLDG 165

**SAS**

**OPERATION PROFILE**

| NAME | ITEM   | CD   | PCN  | 05502A | WCD  | MB017Y | WCD | DATE | 88141 | ALC   | WR   | DATE | 88141 | MANPSA | RCC | MANPSA |
|------|--------|------|------|--------|------|--------|-----|------|-------|-------|------|------|-------|--------|-----|--------|
| OPER | OPER   | HIST | MAND | OPER   | MAND | SKILL  | QTY | %    | HRS   | EQUIP | CODE | QTY  | %     | HRS    | QTY | %      |
| NUMB | DESC   | OC   | OC   | TYPE   | F    | CD/LVL | QTY | %    | HRS   | CODE  | QTY  | %    | HRS   | QTY    | %   | HRS    |
| 320  | MANPSA | INS  | P    | T      | 1.0  | 47891  | 1   | 0.5  |       |       |      |      |       |        |     |        |
| 320  | MANPSA | INS  | P    | S      | 1.0  |        |     |      |       |       |      |      |       |        |     |        |
| 320  | MANPSA | INS  | P    | P      | 0    | 49533  | 1   | 12.0 |       |       |      |      |       |        |     |        |
| 330  | MANPSA | PROC |      | T      | 0    |        |     |      |       |       |      |      |       |        |     |        |
| 330  | MANPSA | PROC |      | S      | 1.0  |        |     |      |       |       |      |      |       |        |     |        |
| 330  | MANPSA | PROC |      | P      | 0    | 47891  | 3   | 2.0  | 9450  |       |      | 1    | 0.5   |        |     |        |
| 340  | MANPSA | PROC |      | T      | 0    |        |     |      |       |       |      |      |       |        |     |        |
| 340  | MANPSA | PROC |      | S      | 1.0  |        |     |      |       |       |      |      |       |        |     |        |
| 340  | MANPSA | PROC |      | P      | 0    | 49533  | 1   | 2.0  | 9450  |       |      | 1    | 1.0   |        |     |        |
| 350  | MANPSA | MOVE |      | T      | 0    |        |     |      |       |       |      |      |       |        |     |        |
| 350  | MANPSA | MOVE |      | S      | 1.0  |        |     |      |       |       |      |      |       |        |     |        |
| 350  | MANPSA | MOVE |      | P      | 0    | 47891  | 3   | 2.0  | 9450  |       |      | 1    | 1.0   |        |     |        |



**SAS**

## OPERATION PROFILE

NAME \_\_\_\_\_

NAME  
ITEM CD PCN 05502A

ALC WR

DATE \_\_\_\_\_

WCDDATE 88141

| OPER<br>NUMB | RCC | OPER<br>DESC | HIST<br>OCCR | MAND<br>OCCR | OPER<br>TYPE | MAND<br>F HRS | SKILL<br>CD/LVL |
|--------------|-----|--------------|--------------|--------------|--------------|---------------|-----------------|
| 0000000000   |     |              |              |              |              |               |                 |

360 MANPSA INSP

360 MANPSA INSP . 1.0 s

360 MANPSA INSP, . P O. 49533

370 MANPSA INSP

370 MANPSA INSP /D s

3370 MANPSA TNSP

290 MANDSA ACCY 4

10

5/



9:46 TUESDAY, MARCH 28, 1989 23

SHEET \_\_\_\_\_ OF \_\_\_\_\_

**OPERATION PROFILE**

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

WCD MBO17Y ' WCDDATE 88141

| OPER<br>NUMB | RCC | OPER<br>DESC | HIST<br>OCCR | MAND<br>X,CR | OPER<br>TYPE | MAND<br>F | HRS | SKILL<br>CD/LVL | QTY | % | HRS | EQUIP<br>CODE |
|--------------|-----|--------------|--------------|--------------|--------------|-----------|-----|-----------------|-----|---|-----|---------------|
|--------------|-----|--------------|--------------|--------------|--------------|-----------|-----|-----------------|-----|---|-----|---------------|

| HIST | MAND | OPER | MAND  | SKILL  |
|------|------|------|-------|--------|
| OCOR | X.CR | TYPE | F HRS | CD/LVL |
| 1    |      |      |       |        |
| 2    |      |      |       |        |
| 3    |      |      |       |        |
| 4    |      |      |       |        |
| 5    |      |      |       |        |
| 6    |      |      |       |        |
| 7    |      |      |       |        |
| 8    |      |      |       |        |
| 9    |      |      |       |        |
| 10   |      |      |       |        |
| 11   |      |      |       |        |
| 12   |      |      |       |        |
| 13   |      |      |       |        |
| 14   |      |      |       |        |
| 15   |      |      |       |        |
| 16   |      |      |       |        |
| 17   |      |      |       |        |
| 18   |      |      |       |        |
| 19   |      |      |       |        |
| 20   |      |      |       |        |
| 21   |      |      |       |        |
| 22   |      |      |       |        |
| 23   |      |      |       |        |
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| 25   |      |      |       |        |
| 26   |      |      |       |        |
| 27   |      |      |       |        |
| 28   |      |      |       |        |
| 29   |      |      |       |        |
| 30   |      |      |       |        |
| 31   |      |      |       |        |
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| 33   |      |      |       |        |
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| 36   |      |      |       |        |
| 37   |      |      |       |        |
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| 39   |      |      |       |        |
| 40   |      |      |       |        |
| 41   |      |      |       |        |
| 42   |      |      |       |        |
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| 45   |      |      |       |        |
| 46   |      |      |       |        |
| 47   |      |      |       |        |
| 48   |      |      |       |        |
| 49   |      |      |       |        |
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| 81   |      |      |       |        |
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| 86   |      |      |       |        |
| 87   |      |      |       |        |
| 88   |      |      |       |        |
| 89   |      |      |       |        |
| 90   |      |      |       |        |
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| 93   |      |      |       |        |
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| 97   |      |      |       |        |
| 98   |      |      |       |        |
| 99   |      |      |       |        |
| 100  |      |      |       |        |

NOTES

| RCC MANPSA | QTY | % | HRS |
|------------|-----|---|-----|
|------------|-----|---|-----|

NAME \_\_\_\_\_  
ITEM CD PCN 05502A

| OPER<br>NUMB | RCC | OPER<br>DESC |
|--------------|-----|--------------|
|--------------|-----|--------------|

440 MANPDC WTB

440 MANPDC WTB U

450 MANPSA PROC

[illegible]

450 MAMBA 880C

430 MANPSA PROC

150 MAURICE  
151

**OPERATION PROCTER**

**SAS**

| NAME      | ITEM CD     | PCN       | Q5502A    | WCD   | WBALTY       | ALC | WR | DATE       | RCC | MANPSA | SHEET |
|-----------|-------------|-----------|-----------|-------|--------------|-----|----|------------|-----|--------|-------|
| OPER NUMB | OPER DESC   | HIST OCCR | MAND TYPE | F HRS | SKILL CD/LVL | QTY | %  | EQUIP CODE | QTY | %      | NOTES |
| 10        | MANPSA PROC | .         | T         | (1.0) |              | .   | .  |            | .   | .      | -     |
| 10        | MANPSA PROC | .         | 1.0 S     | 0.    |              | .   | .  |            | .   | .      |       |
| 10        | MANPSA PROC | .         | P         | 0.    | 47891        | 1   | .  | 6.0        | .   | .      |       |
| 20        | MANPSA PROC | .         | T         | 0.    |              | .   | .  |            | .   | .      |       |
| 20        | MANPSA PROC | .         | 1.0 S     | 0.    |              | .   | .  |            | .   | .      |       |
| 20        | MANPSA PROC | .         | P         | 0.    | 49533        | 1   | .  | 4.0        | .   | .      |       |
| 30        | MANPSA PROC | .         | T         | 0.    |              | .   | .  |            | .   | .      |       |
| 30        | MANPSA PROC | .         | 1.0 S     | 0.    |              | .   | .  |            | .   | .      |       |
| 30        | MANPSA PROC | .         | P         | 0.    | 49533        | 1   | .  | 0.3        | .   | .      |       |
| 40        | MANPSA REP  | .         | T         | 0.    |              | .   | .  |            | .   | .      |       |
| 40        | MANPSA REP  | .         | 1.0 S     | 0.    |              | .   | .  |            | .   | .      |       |
| 40        | MANPSA REP  | .         | P         | 0.    | 47891        | 1   | .  | 4.0        | .   | .      |       |
| 50        | MANPSA REP  | .         | T         | 0.    |              | .   | .  |            | .   | .      |       |

[illegible]



# OPERATION · PROFILE

**SHEET 133HS OF**

[illegible]

**OPERATION PROFILE**

[illegible]



SAS  
ASSEMBLY/DISASSEMBLY PROFILE

WCD DT INSTALL SAME NOTES  
SHEET \_\_\_\_ OF \_\_\_\_  
SEE PROFILE  
SHEET (NEW)

RCC MANPSA

DATE

ALC WR

WCD DT DSOP ASOP

REMOV ITEM CODE

WCD

| NAME       | ITEM CODE | WCD DT | ALC WR | DATE | REMOV ITEM CODE           | WCD |
|------------|-----------|--------|--------|------|---------------------------|-----|
| PCN 05502A | MB017Y    | 88141  | 20     | 270  | PCN 05502AD LEADINGS EKK  |     |
| PCN 05502A | MB017Y    | 88141  | 50     | 360  | PCN 05502AA HILFON THAB ✓ |     |
| PCN 05502A | MB017Y    | 88141  | 80     | 210  | PCN 05502AC BEARINGS      |     |

PCN 51454A

|        |       |     |     |              |
|--------|-------|-----|-----|--------------|
| MB030B | 88064 | 110 | 120 | PCN 51454AH1 |
|--------|-------|-----|-----|--------------|

|            |        |       |    |     |             |
|------------|--------|-------|----|-----|-------------|
| PCN 51454A | MB030B | 88064 | 20 | 290 | PCN 51454AF |
|------------|--------|-------|----|-----|-------------|

|            |        |       |     |     |             |
|------------|--------|-------|-----|-----|-------------|
| PCN 51454A | MB030B | 88064 | 280 | 370 | PCN 51454AA |
|------------|--------|-------|-----|-----|-------------|

|            |        |       |     |     |             |
|------------|--------|-------|-----|-----|-------------|
| PCN 51454A | MB030B | 88064 | 270 | 290 | PCN 51454AG |
|------------|--------|-------|-----|-----|-------------|

|            |        |       |     |     |              |
|------------|--------|-------|-----|-----|--------------|
| PCN 51454A | MB030B | 88064 | 270 | 480 | PCN 51454AH2 |
|------------|--------|-------|-----|-----|--------------|

|            |        |       |     |     |              |
|------------|--------|-------|-----|-----|--------------|
| PCN 51454A | MB030B | 88064 | 270 | 290 | PCN 51454AAB |
|------------|--------|-------|-----|-----|--------------|

|            |        |       |     |     |             |
|------------|--------|-------|-----|-----|-------------|
| PCN 51454A | MB030B | 88064 | 280 | 340 | PCN 51454AI |
|------------|--------|-------|-----|-----|-------------|

|            |        |       |     |     |             |
|------------|--------|-------|-----|-----|-------------|
| PCN 51454A | MB030B | 88064 | 320 | 400 | PCN 51454AJ |
|------------|--------|-------|-----|-----|-------------|

|            |        |       |     |     |             |
|------------|--------|-------|-----|-----|-------------|
| PCN 51454A | MB030B | 88064 | 330 | 430 | PCN 51454AD |
|------------|--------|-------|-----|-----|-------------|

|            |        |       |    |     |             |
|------------|--------|-------|----|-----|-------------|
| PCN 51454A | MB030B | 88064 | 40 | 500 | PCN 51454AC |
|------------|--------|-------|----|-----|-------------|

|            |        |       |    |     |             |
|------------|--------|-------|----|-----|-------------|
| PCN 51454A | MB030B | 88064 | 90 | 460 | PCN 51454AE |
|------------|--------|-------|----|-----|-------------|

NAME BILL RICH ALC WR-ALC DATE 4-28-87 ROC MANPSA SHEET 1 OF 1

| TOP ASSEMBLY |        |          |             | REMOVAL<br>OPERATION<br>NUMBER | INSTALLATION<br>OPERATION<br>NUMBER | SUBASSEMBLY |               |        |  | NAME REMOVED<br>ITEM INSTALLED<br>INTO ASST.<br>Y/N |
|--------------|--------|----------|-------------|--------------------------------|-------------------------------------|-------------|---------------|--------|--|-----------------------------------------------------|
| ITEM NUMBER  | WCD    | WCD DATE | ITEM NUMBER |                                |                                     | CHRD WCD    | CHRD WCD DATE |        |  |                                                     |
| CH) 05502A   | MB017Y | 88141    | 30          | 270<br>280                     | 05502A                              | MB017Y      | 88336         | Y      |  |                                                     |
| CH) 05502A   | MB017Y | 88141    | 50          | 360                            | 05502A                              | MB017Y      | 88131         | Y      |  |                                                     |
| CH) 05502A   | MB017Y | 88141    | 80          | 210                            | 05502A                              | MB017Y      | 88313         | Y(.50) |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
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| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
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| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
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| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
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| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
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| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
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| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
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| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
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| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PH           |        |          |             |                                |                                     |             |               |        |  |                                                     |
| PCN          |        |          |             |                                |                                     |             |               |        |  |                                                     |
| NSH          |        |          |             |                                |                                     |             |               |        |  |                                                     |

**LSC-2(XH)SA**

PCN=05502A/05503A=

C-141 AILERON

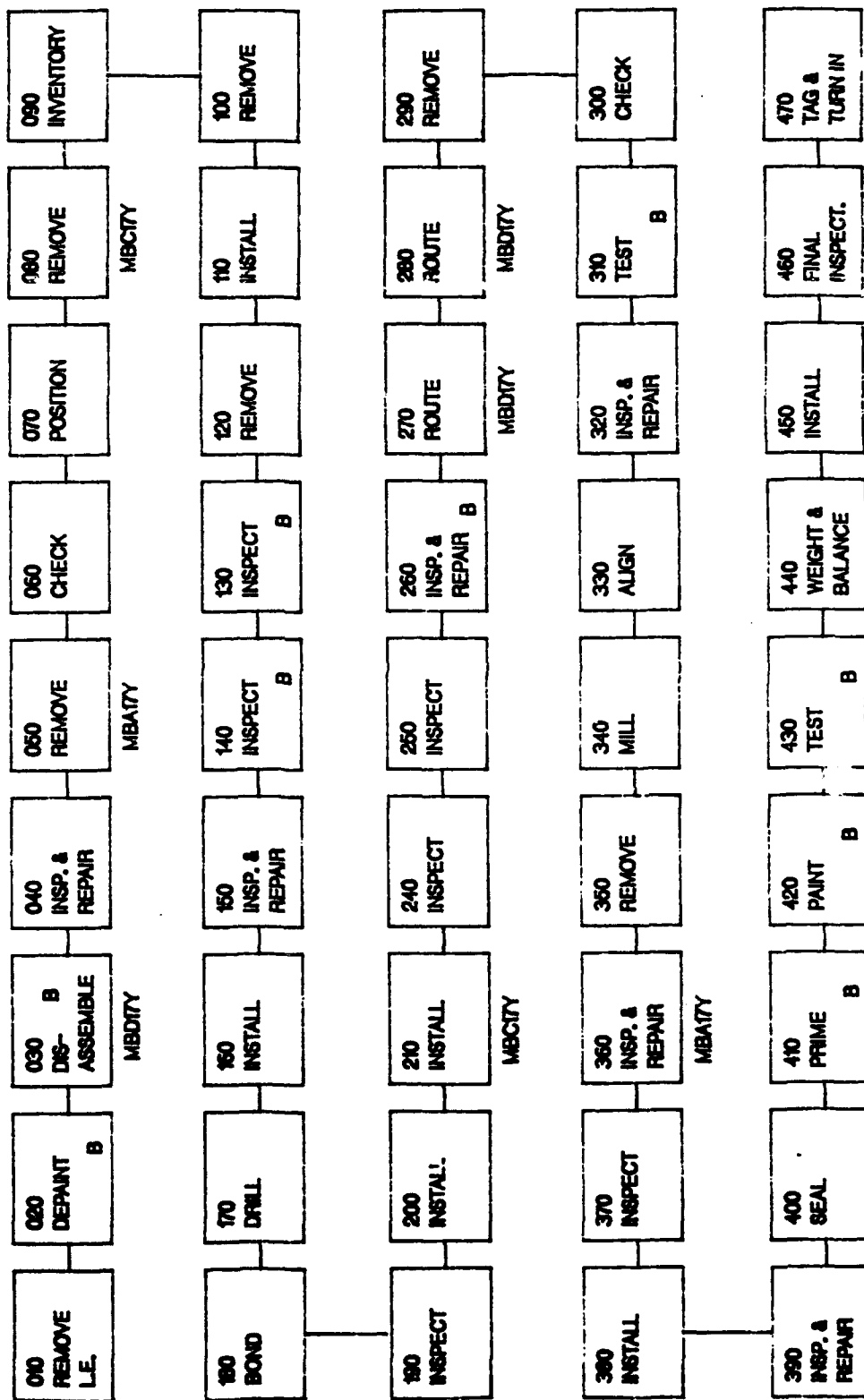
MANPSA PARENT WCD = MBO17Y (MISTR)

BILL RICH

4-20-89

[MBZ17Y (PDM)]

START



MANPSA

PARENT WCD = MB017Y(MISTR)

BILL RICH

[MBZ17Y(PDM)]

4-20-89

PCM = 05502A/05503A = C-141 AILERON

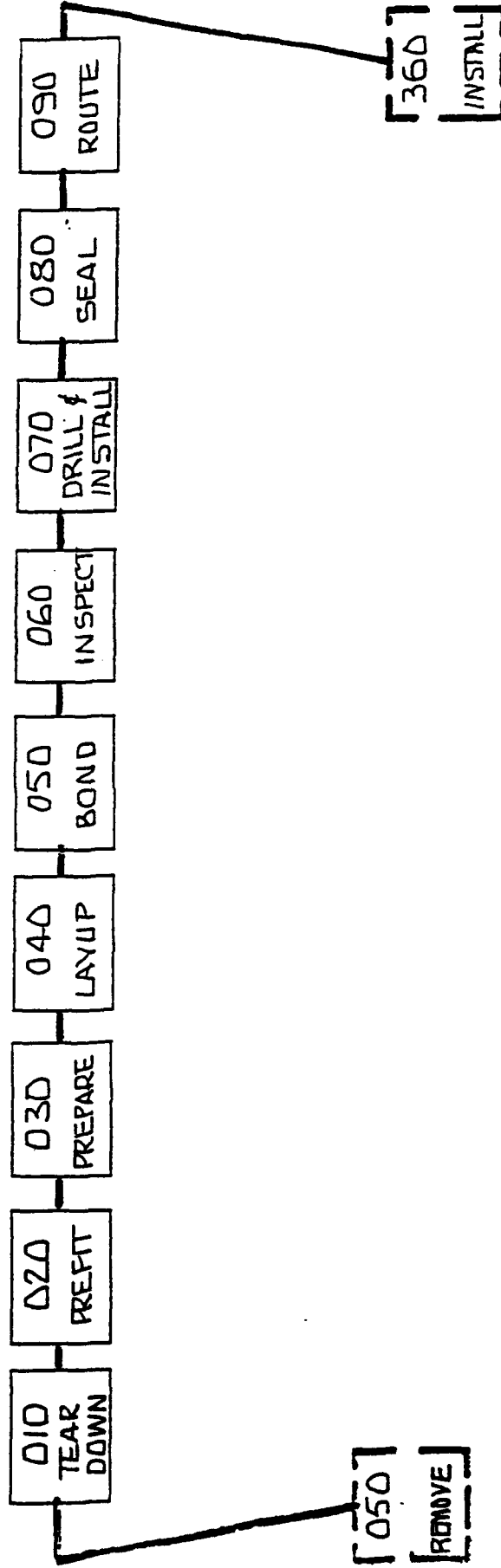
| <u>OP. NO.</u> | <u>ACTION (VERB)</u> | <u>OP. NO.</u> | <u>ACTION (VERB)</u> |
|----------------|----------------------|----------------|----------------------|
| 010            | Remove L. E.         | 250            | Inspect              |
| 020            | Depaint              | 260            | Insp. & Repair       |
| 030            | Disassemble          | 270            | Route                |
| 040            | Insp. & Repair       | 280            | Route                |
| 050            | Remove               | 290            | Remove               |
| 060            | Check                | 300            | Check                |
| 070            | Position             | 310            | Test                 |
| 080            | Remove               | 320            | Insp. & Repair       |
| 090            | Inventory            | 330            | Align.               |
| 100            | Remove               | 340            | Mill                 |
| 110            | Install              | 350            | Remove               |
| 120            | Remove               | 360            | Insp. & Repair       |
| 130            | Inspect              | 370            | Inspect              |
| 140            | Inspect              | 380            | Install              |
| 150            | Insp. & Repair       | 390            | Insp. & Repair       |
| 160            | Install              | 400            | Seal                 |
| 170            | Drill                | 410            | Prime                |
| 180            | Bond                 | 420            | Paint                |
| 190            | Inspect              | 430            | Test                 |
| 200            | Install              | 440            | Weight & Bal.        |
| 210            | Install              | 450            | Install              |
| 240            | Inspect              | 460            | Final Insp.          |
|                |                      | 470            | Tag & Turn In        |

MBA 17Y

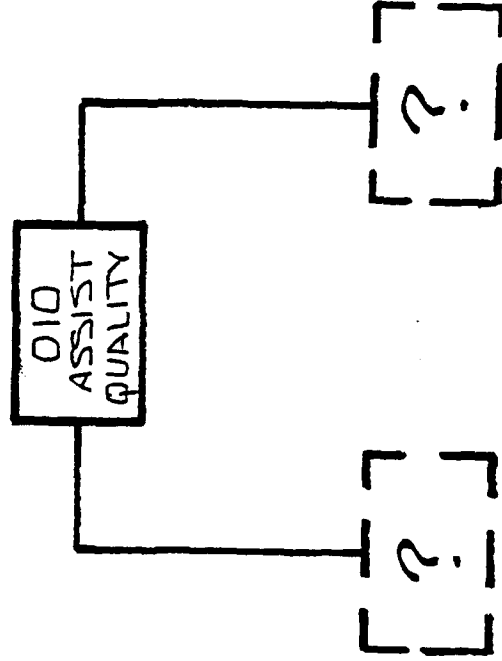
AILERON PARTS

(BLDG 169)

(AILERON TAB)

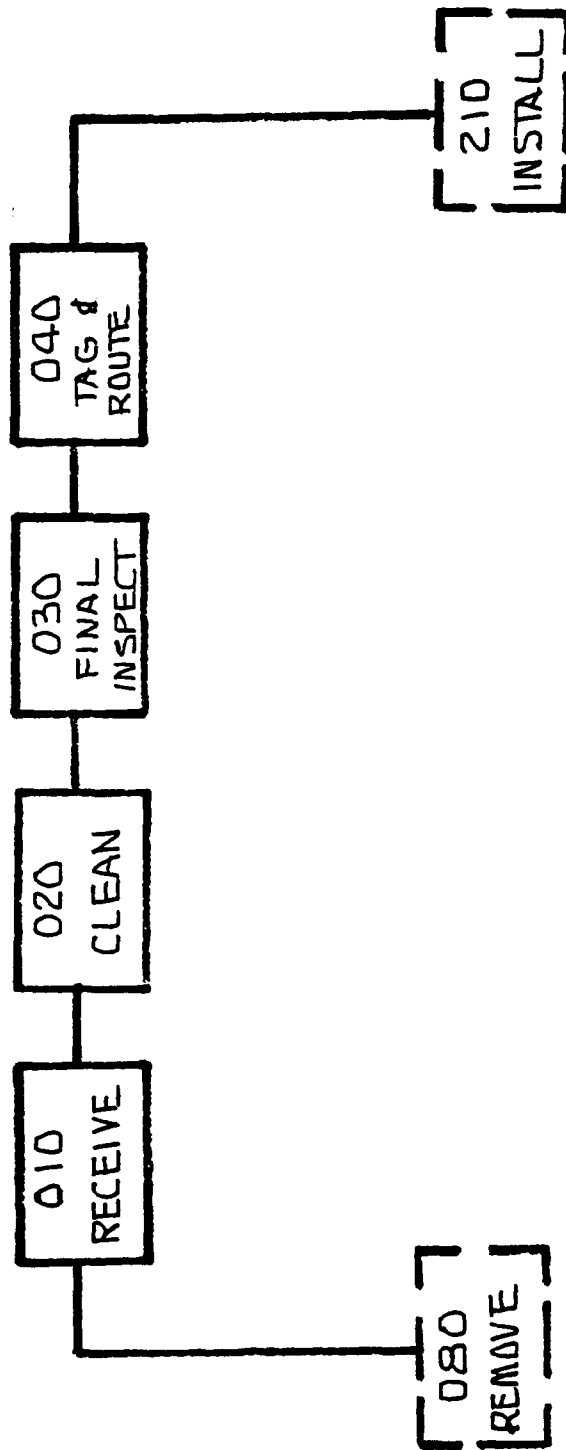


MBB17Y  
AILERON (I&R)  
(BLDG 169)



- INTENDED FOR MECHANIC ASSISTANCE TO QUALITY FOR DISPOSITION OF (MDR) MATERIAL DEFECENCY REPORTS. NO MDR'S HAVE BEEN ISSUED OF LATE.

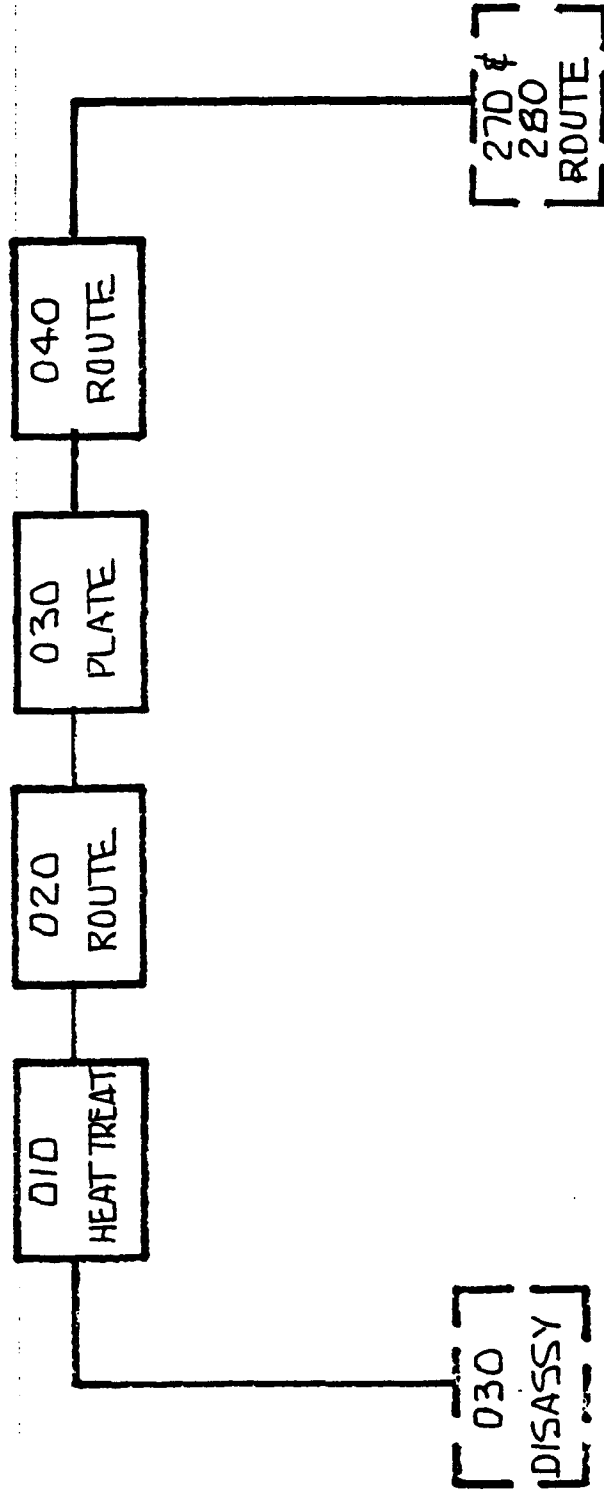
MBC 17Y  
BEARINGS  
(BLDG 169)



MBD 17 Y

AILERON, MISC. PARTS

(LEADING EDGE)





# **AFCL TECHNOLOGY INSERTION PROGRAM OPERATION PROFILE INSTRUCTIONS (CONTINUED)**

PAGE 2

## **DATA ITEM**

**RCC**

## **DESCRIPTION**

ENTER RCC NAME FOR THAT OPERATION. IF THIS RCC NAME IS NOT THE PRIMARY RCC, THE OPERATION WILL BE A BACK SHOP OPERATION. IF BACK SHOP, ENTER ONLY MANDATORY OCCURRENCE FACTOR AND MANDATORY FLOW HOURS. (6 CHARACTERS)

## **SOURCE**

RCC WILL BE LISTED UNDER THE OPERATION NO. IN COLUMN 19 OF WCD.

**OPERATION  
DESCRIPTION**

ENTER AN ABBREVIATED DESCRIPTION OF WORK BEING PERFORMED. LIMIT FOUR CHARACTERS. USE THE FOLLOWING ABBREVIATIONS AND CREATE ADDITIONAL ABBREVIATIONS AS REQUIRED.

ITEM 20 OF WCD

EVALUATE

INSTALL

## **ABBREVIATION**

ASSY  
DIS  
NDI  
MOVE  
PROC  
REP  
REPL  
MFG  
LOAD  
UNLD  
TEST  
INSP  
REC  
SHIP  
INFO  
MACH  
CLN  
IND  
SELL

## **DESCRIPTION**

ASSEMBLY  
DISASSEMBLY  
NON-DESTRUCTIVE INSPECTION  
TRAVEL BETWEEN OPERATIONS  
PROCESS OPERATION  
REPAIR  
REPLACE  
MANUFACTURE  
LOAD  
UNLOAD  
TEST  
INSPECTION  
RECEIVE OF ITEM  
SHIPMENT OF ITEM  
INFORMATION  
MACHINING  
CLEAN  
INDUCTION  
SELL DATE

REV

WRAP

DEP

KIT

PNT

NA

WTBL

REC

TAG

REVIEW

WRAP

DEPAINT

KIT

PAINT

NAT APPLIED

WEIGHT/BALANCE

RECORD

TAG/ROUTE

HEAT TREAT

ROUTE

PLATE

WELD

XRAY

TREAT

EVAL

INST

REV

WRAP

DEP

KIT

PNT

NA

WTBL

REC

TAG

HT

RTE

PLT

WELD

XRAY

TRT

C-141 Horizontal Stabilizer  
C/N 51334A

Operation Profile

Disassembly/Assembly Profile

In/Out

Process Flow

Operation Description

# OPERATION P FILE

| NAME <u>BILL RICH</u> ALC <u>WR ALC</u> DATE <u>4-25-89</u> RCC <u>MAN PSA</u> SHEET <u>1</u> OF <u>1</u> |         | WCD <u>WB008B</u> WCD DATE <u>88053</u> |                             |                |                      |          |                      |                              |
|-----------------------------------------------------------------------------------------------------------|---------|-----------------------------------------|-----------------------------|----------------|----------------------|----------|----------------------|------------------------------|
| OPERATION NUMBER                                                                                          | RCC     | OPERATION DESCRIPTION                   | MANDATORY OCCURRENCE FACTOR | OPERATION TYPE | MANDATORY FLOW HOURS | MANPOWER | EQUIPMENT            | DATA SOURCE COMMENTS         |
|                                                                                                           |         |                                         |                             |                | %                    | QTY.     | TIME REQUIRED % HRS. |                              |
| 0000                                                                                                      | MAN PSA | REC                                     | 1.00                        | TRANSIT        |                      |          |                      | A. KNIGHT (6) 3141           |
|                                                                                                           |         |                                         |                             | SETUP          |                      |          |                      | MECHANIC                     |
|                                                                                                           |         |                                         |                             | PROCESS        | 1.0                  | 1        | 0.1                  | M. NORRISON PLANNER (6) 3615 |
|                                                                                                           |         |                                         |                             | TRANSIT        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | SETUP          |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | PROCESS        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | TRANSIT        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | SETUP          |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | PROCESS        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | TRANSIT        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | SETUP          |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | PROCESS        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | TRANSIT        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | SETUP          |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | PROCESS        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | TRANSIT        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | SETUP          |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | PROCESS        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | TRANSIT        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | SETUP          |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | PROCESS        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | TRANSIT        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | SETUP          |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | PROCESS        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | TRANSIT        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | SETUP          |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | PROCESS        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | TRANSIT        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | SETUP          |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | PROCESS        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | TRANSIT        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | SETUP          |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | PROCESS        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | TRANSIT        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | SETUP          |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | PROCESS        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | TRANSIT        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | SETUP          |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | PROCESS        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | TRANSIT        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | SETUP          |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | PROCESS        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | TRANSIT        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | SETUP          |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | PROCESS        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | TRANSIT        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | SETUP          |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | PROCESS        |                      |          |                      |                              |
|                                                                                                           |         |                                         |                             | TRANSIT        |                      |          |                      |                              |
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HOR. STAB L.E.

9:46 TUESDAY, MARCH 28, 1989 24

SAS

OPERATION PROFILE

SHEET \_\_\_\_ OF \_\_\_\_

RCC MANPSA

DATE

ALC WR

NAME

ITEM CD PCN 51334A 1

WCD MB008B 1 WCD DATE 88053

OPER NUMB RCC OPER HIST MAND OPER MAND SKILL CD/LVL QTY % HRS

10 MANPPC CLN 1.00 T 2.0 47891 1 0.5

10 MANPPC CLN 1.0 S 0

10 MANPPC CLN P 1.0

20 MANPPC TEST 1.00 T 0

20 MANPPC TEST 1.0 S 0

20 MANPPC TEST P 1.0

21 MANPPC TEST 1.00 T 0

21 MANPPC TEST 1.0 S 0

21 MANPPC TEST P 1.0

22 MANPPC TEST 0.02 T 0

22 MANPPC TEST 1.0 S 0

22 MANPPC TEST P 1.0

25 MANPPC DEP 1.00 T 2.0 47891 1 1.0

BIDG 140

BIDG 180

9:46 TUESDAY, MARCH 28, 1989 25

OPERATION PROFILE SAS

| NAME | ITEM CD | PCN  | 51334A | ALC | WR   | DATE  | WCD | MB008B | WCD | DATE | 88053 | RCC | MANPSA | QTY | % | HRS | EQUIP | CODE | QTY | % | HRS | NOTES |
|------|---------|------|--------|-----|------|-------|-----|--------|-----|------|-------|-----|--------|-----|---|-----|-------|------|-----|---|-----|-------|
| 25   | MANPDD  | DEP  | 10     | S   | 0    |       |     |        |     |      |       |     |        |     |   |     |       |      |     |   |     |       |
| 25   | MANPDD  | DEP  |        | P   | 20.0 |       |     |        |     |      |       |     |        |     |   |     |       |      |     |   |     |       |
| 30   | MANPSA  | PROC | 1.00   | T   | 1.0  | 47891 | 1   | 0.5    |     |      |       |     |        |     |   |     |       |      |     |   |     |       |
| 30   | MANPSA  | PROC | 1.0    | S   | 0    |       |     |        |     |      |       |     |        |     |   |     |       |      |     |   |     |       |
| 30   | MANPSA  | PROC |        | P   | 0    | 47891 | 1   | 21.0   |     |      |       |     |        |     |   |     |       |      |     |   |     | 161   |
| 40   | MANPSA  | REP  | 0.92   | T   | 0    |       |     |        |     |      |       |     |        |     |   |     |       |      |     |   |     |       |
| 40   | MANPSA  | REP  | 1.00   | S   | 0    |       |     |        |     |      |       |     |        |     |   |     |       |      |     |   |     |       |
| 40   | MANPSA  | REP  |        | P   | 0    | 47891 | 1   | 16.0   |     |      |       |     |        |     |   |     |       |      |     |   |     |       |
| 50   | MANPSA  | REP  | 0.92   | T   | 0    |       |     |        |     |      |       |     |        |     |   |     |       |      |     |   |     |       |
| 50   | MANPSA  | REP  | 1.92   | S   | 0    |       |     |        |     |      |       |     |        |     |   |     |       |      |     |   |     |       |
| 50   | MANPSA  | REP  |        | P   | 0    | 47891 | 1   | 8.0    |     |      |       |     |        |     |   |     |       |      |     |   |     |       |
| 60   | MANPDB  | WELD | 0.77   | T   | 1.0  | 47891 | 1   | 0.5    |     |      |       |     |        |     |   |     |       |      |     |   |     |       |

{ BLDG 180

BLDG 140

OPERATION PROFILE SAS

SHEET \_\_\_ OF \_\_\_

RCC MANPSA

ALC WR DATE

ITEM CD PCN 51334A / WCD MB008B / WCD DATE 88053

OPER NOMB RCC HIST MAND OPER MAND SKILL CD/LVL QTY % HRS EQUIP CODE

60 MANPDB WELD . . . S 0 . . . . .

60 MANPDB WELD . . . P 10.0 . . . . .

65 MANPSA PROC 0.85 . . . T 1.0 47891 1 0.5 . . . . .

65 MANPSA PROC . . . 85 S 0 . . . . .

65 MANPSA PROC . . . P 0 47891 1 8.0 . . . . .

70 MANPSA PROC 1.00 . . . T 0 . . . . .

70 MANPSA PROC . . . 10 S 0 . . . . .

70 MANPSA PROC . . . P 0 47891 1 4.0 . . . . .

80 MANPSA PROC 1.00 . . . T 0 . . . . .

80 MANPSA PROC . . . 10 S 0 . . . . .

80 MANPSA PROC . . . P 0 47891 1 4.0 . . . . .

90 MANPSA REP 1.00 . . . T 0 . . . . .

90 MANPSA REP . . . 10 S 0 . . . . .

BLDG 140



OPERATION PROFILE SAS

SHEET      OF     

| NAME               |            |                     | ALC WR       |           |              | DATE           |   |            | RCC MANPSA |     |   |     |
|--------------------|------------|---------------------|--------------|-----------|--------------|----------------|---|------------|------------|-----|---|-----|
| ITEM CD PCN 51334A |            |                     | I WCD MR008B |           |              | WCD DATE 88053 |   |            |            |     |   |     |
| OPER NUMB          | OPER DESC  | HIST MAND OCCR TYPE | MAND F       | OPER TYPE | SKILL CD/LVL | QTY            | % | HRS        | EQUIP CODE | QTY | % | HRS |
| 90                 | MANPSA REP |                     | P            |           | 20.0 47891   | 1              |   | 0.3        | 1190       | 1   |   |     |
| 120                | MANPSA REP | 1.00                | T            |           | 0            |                |   |            |            |     |   |     |
| 120                | MANPSA REP | / 0                 | S            |           | 0            |                |   |            |            |     |   |     |
| 120                | MANPSA REP |                     | P            |           | 0 47891      | 1              |   | 8.0<br>1.0 |            |     |   |     |
| 130                | MANPSA REP | 1.00                | T            |           | 0            |                |   |            |            |     |   |     |
| 130                | MANPSA REP | / 0                 | S            |           | 0            |                |   |            |            |     |   |     |
| 130                | MANPSA REP |                     | P            |           | 0 47891      | 1              |   | 8.0<br>2.5 |            |     |   |     |
| 140                | MANPSA INS | 1.00                | T            |           | 0            |                |   |            |            |     |   |     |
| 140                | MANPSA INS | / 0                 | S            |           | 0            |                |   |            |            |     |   |     |
| 140                | MANPSA INS |                     | P            |           | 0 47891      | 1              |   | 0.3        |            |     |   |     |
| 150                | MANPPC /NS | 1.00                | T            |           | 1.0 47891    | 1              |   | 0.5        |            |     |   |     |
| 150                | MANPPC /NS | / 0                 | S            |           | 0            |                |   |            |            |     |   |     |

{ BUDG 140

OPERATION PROFILE SAS

SHEET \_\_\_\_ OF \_\_\_\_

| NAME | ITEM CD | PCN    | 51334A | ALC  | WR   | DATE | WCDDATE | 88053 | QTY   | %      | HRS | EQUIP | CODE | QTY | % | HRS |
|------|---------|--------|--------|------|------|------|---------|-------|-------|--------|-----|-------|------|-----|---|-----|
| OPER | RCC     | MANPPC | OPER   | HIST | MAND | OPER | MAND    | TYPE  | SKILL | CD/LVL | QTY | %     | HRS  | QTY | % | HRS |
| 150  | MANPPC  | INDSP  | P      | 2.0  |      |      |         |       |       |        |     |       |      |     |   |     |
| 155  | MANPPC  | PRoc   | T      | 2.0  |      |      |         |       |       |        |     |       |      |     |   |     |
| 155  | MANPPC  | PRoc   | S      | 0.   |      |      |         |       |       |        |     |       |      |     |   |     |
| 155  | MANPPC  | PRoc   | P      | 2.0  |      |      |         |       |       |        |     |       |      |     |   |     |
| 160  | MANPPC  | TEST   | T      | 0.   |      |      |         |       |       |        |     |       |      |     |   |     |
| 160  | MANPPC  | TEST   | S      | 0.   |      |      |         |       |       |        |     |       |      |     |   |     |
| 160  | MANPPC  | TEST   | P      | 8.0  |      |      |         |       |       |        |     |       |      |     |   |     |
| 170  | MANPPC  | TEST   | T      | 0.   |      |      |         |       |       |        |     |       |      |     |   |     |
| 170  | MANPPC  | TEST   | S      | 0.   |      |      |         |       |       |        |     |       |      |     |   |     |
| 170  | MANPPC  | TEST   | P      | 0.   |      |      |         |       |       |        |     |       |      |     |   |     |
| 180  | MANPPC  | TEST   | T      | 0.   |      |      |         |       |       |        |     |       |      |     |   |     |
| 180  | MANPPC  | TEST   | S      | 0.   |      |      |         |       |       |        |     |       |      |     |   |     |
| 180  | MANPPC  | TEST   | P      | 0.   |      |      |         |       |       |        |     |       |      |     |   |     |

BLDG  
140



SHEET    OF   

NOTES  
Bldg  
180

SAS

OPERATION PROFILE

NAME                      ALC WR                      DATE                     

ITEM CD PCN 51334A WCD MB008B WCD DATE 88053

| OPER<br>NUMB | RCC    | OPER<br>DESC | HIST<br>OCCR | MAND<br>TYPE | MAND<br>F HRS | SKILL<br>CD/LVL | QTY | % | HRS | EQUIP<br>CODE | RCC MANPSA | QTY | % | HRS | NOTES |
|--------------|--------|--------------|--------------|--------------|---------------|-----------------|-----|---|-----|---------------|------------|-----|---|-----|-------|
| 200          | MANPDC | PNT          | 1.00         | T            | 1.0           | 47891           | 1   |   | .5  |               |            |     |   |     |       |
| 200          | MANPDC | PNT          | 1.0          | S            | 0             |                 |     |   |     |               |            |     |   |     |       |
| 200          | MANPDC | PNT          |              | P            | 20.0          |                 |     |   |     |               |            |     |   |     |       |
| 210          | MANPSA | PROC         | 1.00         | T            | 1.0           | 47891           | 1   |   | .5  |               |            |     |   |     |       |
| 210          | MANPSA | PROC         | 1.0          | S            | 0             |                 |     |   |     |               |            |     |   |     |       |
| 210          | MANPSA | PROC         |              | P            | 0             | 47891           | 1   |   | 0.1 |               |            |     |   |     |       |
| 220          | MANPSA | INS          | 1.00         | T            | 0             |                 |     |   |     |               |            |     |   |     |       |
| 220          | MANPSA | INS          | 1.0          | S            | 0             |                 |     |   |     |               |            |     |   |     |       |
| 220          | MANPSA | INS          |              | P            | 0             | 47891           | 1   |   | 0.1 |               |            |     |   |     |       |
| 230          | MANPSA | PROC         | 1.00         | T            | 0             |                 |     |   |     |               |            |     |   |     |       |
| 230          | MANPSA | PROC         | 1.0          | S            | 0             |                 |     |   |     |               |            |     |   |     |       |
| 230          | MANPSA | PROC         |              | P            | 0             | 47891           | 1   |   | 0.1 |               |            |     |   |     |       |

# DISASSEMBLY/ASSEMBLY LE C-141 HOR. STAB. L.E.

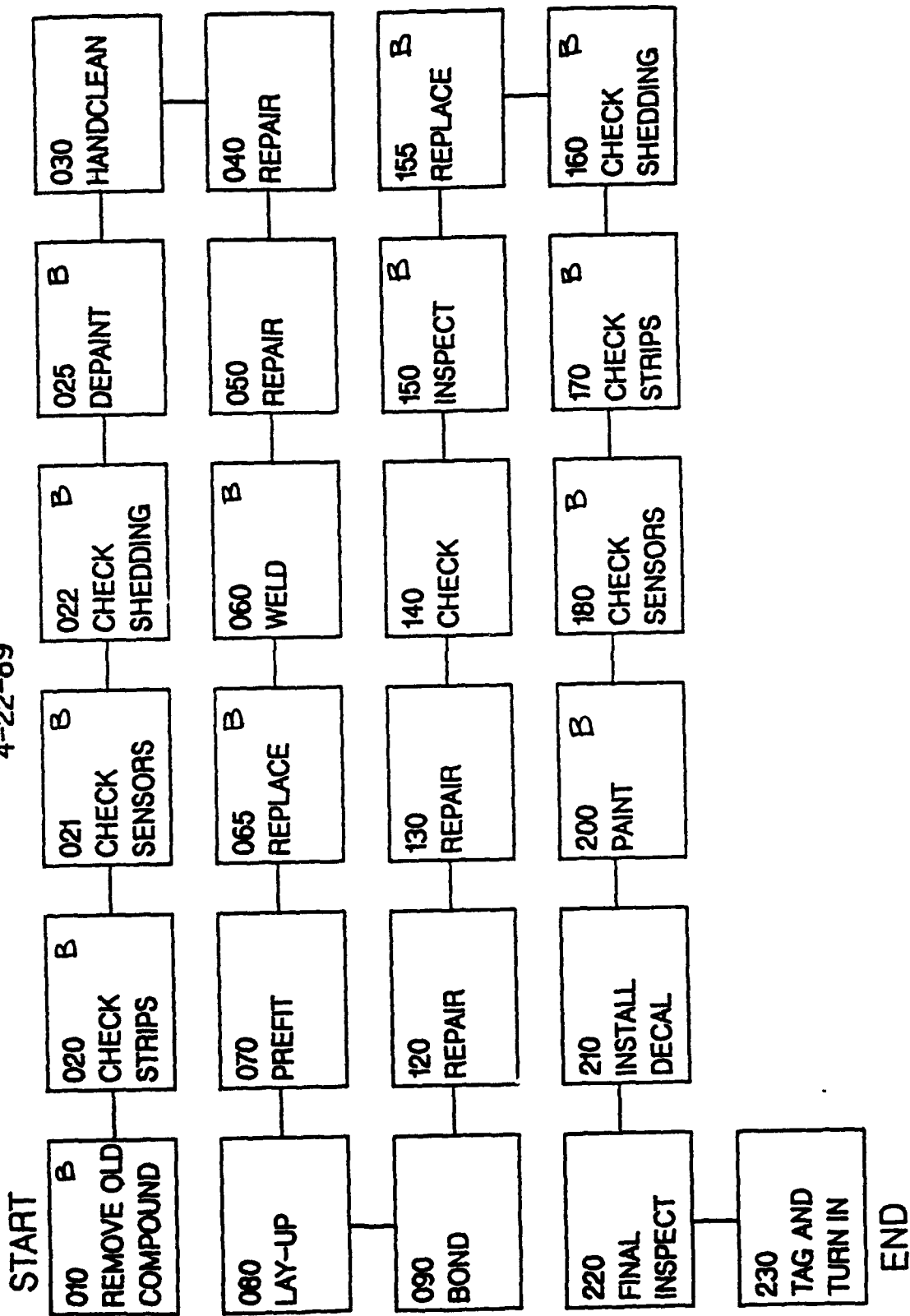
NAME BILL RICH ALC WR-ALC DATE 4-28-89 RCG ANP/SA SHEET 1 OF 1

| TOP ASSEMBLY |     |          | REMOVAL<br>OPERATION<br>NUMBER | INSTALLATION<br>OPERATION<br>NUMBER | SUBASSEMBLY |          |               | SAME REMOVED<br>ITEM INSTALLED<br>INTO ASBY.<br>Y/N |
|--------------|-----|----------|--------------------------------|-------------------------------------|-------------|----------|---------------|-----------------------------------------------------|
| ITEM NUMBER  | WCD | WCD DATE |                                |                                     | ITEM NUMBER | CHRD WCD | CHRD WCD DATE |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
| PIN          |     |          |                                |                                     |             |          |               |                                                     |
| PCN          |     |          |                                |                                     |             |          |               |                                                     |
| NSN          |     |          |                                |                                     |             |          |               |                                                     |
|              |     |          |                                |                                     |             |          |               |                                                     |

WCD=MB008B, PCN=51334A, C-141 LEADING EDGE  
(HOR. STAB.)

MANPSA

BILL RICH  
4-22-89



# AFLC TECHNOLOGY INSERTION PROGRAM OPERATION PROFILE INSTRUCTIONS (CONTINUED)

| DATA ITEM             | DESCRIPTION                                                                                                                                                                                                            | SOURCE                                                          |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| RCC                   | ENTER RCC NAME FOR THAT OPERATION. IF THIS RCC NAME IS NOT THE PRIMARY RCC, THE OPERATION WILL BE A BACK SHOP OPERATION. IF BACK SHOP, ENTER ONLY MANDATORY OCCURRENCE FACTOR AND MANDATORY FLOW HOURS. (6 CHARACTERS) | RCC WILL BE LISTED UNDER THE OPERATION NO. IN COLUMN 19 OF WCD. |
| OPERATION DESCRIPTION | ENTER AN ABBREVIATED DESCRIPTION OF WORK BEING PERFORMED. LIMIT FOUR CHARACTERS. USE THE FOLLOWING ABBREVIATIONS AND <u>CREATE</u> ADDITIONAL ABBREVIATIONS AS REQUIRED.                                               | ITEM 20 OF WCD                                                  |
| ABBREVIATION          | DESCRIPTION                                                                                                                                                                                                            | EVALUATE                                                        |
| ASSY                  | ASSEMBLY                                                                                                                                                                                                               | INSTALL                                                         |
| DIS                   | DISASSEMBLY                                                                                                                                                                                                            | REVIEW                                                          |
| NDI                   | NON-DESTRUCTIVE INSPECTION                                                                                                                                                                                             | WRAP                                                            |
| MOVE                  | TRAVEL BETWEEN OPERATIONS                                                                                                                                                                                              | DEPAINT                                                         |
| PROC                  | PROCESS OPERATION                                                                                                                                                                                                      | KIT                                                             |
| REP                   | REPAIR                                                                                                                                                                                                                 | PAIN                                                            |
| REPL                  | REPLACE                                                                                                                                                                                                                | NAT APPLIED                                                     |
| MFG                   | MANUFACTURE                                                                                                                                                                                                            | WEIGHT/STAIN                                                    |
| LOAD                  | LOAD                                                                                                                                                                                                                   | RECORD                                                          |
| UNLD                  | UNLOAD                                                                                                                                                                                                                 | TAG/ROUTE                                                       |
| TEST                  | TEST                                                                                                                                                                                                                   | HEAT TREAT                                                      |
| INSP                  | INSPECTION                                                                                                                                                                                                             | ROUTE                                                           |
| REC                   | RECEIVE OF ITEM                                                                                                                                                                                                        | PLATE                                                           |
| SHIP                  | SHIPMENT OF ITEM                                                                                                                                                                                                       | WELD                                                            |
| INFO                  | INFORMATION                                                                                                                                                                                                            | XRAY                                                            |
| MACH                  | MACHINING                                                                                                                                                                                                              | TREAT                                                           |
| CLN                   | CLEAN                                                                                                                                                                                                                  |                                                                 |
| IND                   | INDUCTION                                                                                                                                                                                                              |                                                                 |
| SELL                  | SELL DATE                                                                                                                                                                                                              |                                                                 |

### **5.1 PROFILE DATA FILES**

The profile data files for RCC MANPSA were previously submitted under memo number NKE-E016-7603, dated July 6, 1989.

## **5.2 MODEL INPUT FILES**

The model input files for RCC MANPSA were previously submitted under memo number NKE-E016-7603, dated July 6, 1989.

## **6.0 VALIDATION OF INPUT DATA**

All profile data was validated in accordance with paragraph 7.2 and 7.3 of the Simulation Model Definition Document (SMDD). The profile data files included in this document were validated and accurately represent this RCC.

**MINUTES OF  
MODEL VALIDATION MEETING  
June 19 thru June 23, 1989**

**WR-ALC/MDMSC**

**6-29-89**



WR-ALC MODEL VALIDATION  
MEETING MINUTES

19 June 89:

- . Jim Gillis started the meeting by introducing team members:

- . Jim Gillis
- . Gerald Peavy
- . Doug Keene
- . Lott Singletary

AFLC Representative:

- . Trixie Brown

MDMSC Representatives:

- . Bob Bashyan
- . Bill Rich
- . Roger VanderVoord
- . Scott Vroman

- . Jim pointed out that AFLC instructed them not to sign off the Model Validation Form.
- . Reviewed model output for RCC MANPSA. Evaluated throughput, historical flow hours vs. simulated flow hours, expected hours vs. standard hours.
- . This evaluation was performed for each item number. During this process list of major assumptions, action items and concerns were noted.

PCN 01900A: F-15 Speed Brake

- . Historical flow hours 933.5 vs. 466.70 of simulated flow hours.

Assumption:

Method of induction may be a problem. History does reflect 500 hours to complete first operation which is inspection.

Historical backshop hours were greater than simulated hours. We decided to input backshop hours back into the model.

WR-ALC  
Model Validation Meeting Minutes  
Page Two

PCN 01900A: F-15 Speed Brake (continued)

. Action items:

Doug to verify the manpower utilization.  
Bill to review expected and standard hours.

PCN 05502A: C-141 Aileron

- . Simulated throughput 13.2% difference. The difference was due to sporadic induction method.

PCN 51334A: C-141 Leading Edge Horizontal Stabilizer

- . Bill to review expected hours.
- . Increase backshop hours by 180 hours based on historical report.

PCN 51352A: C-141 Access Door

- . Bill to review expected hours.
- . Increase backshop hours based on historical report.

PCN 51418A: C-141 Leading Edge Wing

- . Bill to verify expected hours.

PCN 51454A: C-141 Petal Door

- . Bill to review the subassembly process hours.
- . History had one sample of 698 days - adjusted for this odd occurrence and made hours from 2288 to 1334.

- . This completes the evaluation of model output for RCC MANPSA. At the end of this evaluation, Bob summarized the action items and assumptions. Jim commented that the model

WR-ALC  
Model Validation Meeting Minutes  
Page Three

seems to be doing what it is suppose to and asked MDMSC team to complete the action item and re-run the output. Jim also stated that either expected or standard hours can be used in establishing baseline of model based on IE's judgment. AFLC's representative, Trixie Brown, disagreed with Jim's comment. Validation team decided that during evaluation of difference between historical vs. simulation, 10% should be used only as a guideline not as a measurement.

Evaluation of RCC MANPGC:

- . Evaluated the model output for the following PCNs: 06121A, 74061A, 74063A, 74146A, 74148A and 74149A.
- . Review of throughput, historical vs. simulated flow hours and expected vs. standard hours revealed the following:
  - . Expected vs. standard hours were within acceptable range.
  - . Throughput was good.
  - . Flow hours showed lot of difference between simulation and history. Review of historical report revealed that an unique pattern of process is being followed in Gyro Shop. Gyros after inspection were stored/held for long period of time before the start of repair operation.
  - . Discussed about this problem. Doug and Jim wanted to have some methodology to show the unique holding process.

20 June 89:

- . Bruce Kirk of MDMSC joined us to facilitate our brainstorming effort.
- . Conducted brainstorming effort at Building 169. Morning session for Sheet Metal RCC's MANPSA, MANPSB, MANPSC, and MANPSD and afternoon for Gyro RCC's MANPGA, MANPGB, and MANPGC.

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WR-ALC  
Model Validation Meeting Minutes  
Page Four

- . Due to the nature of process and similarity we decided to have one brainstorming effort for Sheet Metal (4 RCCs) and one for Gyro (3 RCCs).
- . Doug arranged both the sessions by bringing in representatives from manufacturing, scheduling, planning and quality.
- . Both the sessions went out very good with a lot of participation. Developed fish bone - details of fish bone and brainstorming activities are covered in minutes of model validation/brainstorming.

21 June 89:

- . Evaluated the model output for all the RCCs MANPSA, MANPSB, MANPSC, MANPSD, MANPGA, MANPGB, and MANPGC.
- . Redlined the backshop hours and added buffer operations as requested by ALC for Gyro RCCs.
- . Input all the changes and re-run the model.
- . Dick Donnelly and Lou Mavros joined us to support our model validation effort.
- . Dick, Lou, Bob and Gerald had an opportunity to meet Mr. Clinton Lewis. Discussed about the validity of model and about future task orders.
- . Jim Gillis will be on vacation for the rest of the week.

22 June 89:

- . Evaluated the re-run of model output after inputting the redlined corrections.

6-29-89

MANPSA

01900A: F-15 Speed Brake

- . Expected vs. standard hours is acceptable.
- . Historical vs. simulated flow hours - still have a problem. History shows operation 10 takes about 500 hours to complete. This is due to induction and priority problem. Operation 40 shows 68 hours to complete (waiting for engineer) whereas model shows 1 hour. One hours represents process hour whereas 68 hours includes waiting time also.

05502A: C-141 Aileron

- . This a PDM item. No historical data available. Evaluated the output and verified with mechanics and planners to validate the model output.

051334A: C-141 Leading Edge Horizontal Stabilizer

- . Standard vs. expected hours is within acceptable range.
- . Backshop hours were off. Redlined the output.

51454A: C-141 Petal Door

- . Model output does seem to represent as-is condition.

51352A: C-141 Access Door

- . Redlined backshop hours to represent historical data.

MANPSD

09193A: F-15 Radome

- . Expected vs. standard hours is within acceptable range.

WR-ALC  
Model Validation Meeting Minutes  
Page Six

- . Simulated flow hours are almost double the historical. Review showed us operation 190 takes about 550 hours to complete.
- . Operation 190 is repair operation performed by one mechanic for about 50 hours. Model shows the manpower availability as a problem.
- . Doug pointed out that the model exaggerates the problem.

41059A: C-130 Radome Assembly

- . Model output does seem to represent the as-is condition.
- . Needed to verify the historical data of 500 hours for operation 10.

51420A: C-141 Wing Leading Edge

- . Evaluated the output and redlined backshop hours.

40208A: C-130 Radome

- . Output does seem to represent the as-is condition except the historical hours for Operation 30.
- . History shows that it takes over 4000 hours to complete Operation 30.
- . Bob to check the historical input data at St. Louis, if available and respond to WR-ALC.

03172A: F-15A Canopy

- . Evaluated model output. History shows that it takes approximately 1180 hours to complete Operation 10.
- . Operation 10 is to inspect and determine what parts are required to perform the repair. It does wait for a long time in getting those required parts.

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WR-ALC  
Model Validation Meeting Minutes  
Page Seven

MANPSE

- . This is a manufacturing RCC.
- . No historical data for analysis. Reviewed only the throughput.
- . Model output was validated based on it's performance on the other 6 RCCs.

MANPG

- . Evaluated the re-run of model out for RCCs MANPGA, MANPGB and MANPGC.
- . Output for these RCCs were reviewed earlier. Buffer operation were added where necessary to represent historical data.
- . Output for PCNs 74010A, 74074A, 74163A, 74126A, 74051A, 20012A, 06121A, 74061A, 74063A, 74146A, 74148A, and 74149A from all the three RCCs were individually evaluated.
- . Flow hours, process hours and throughput were within acceptable range. Model does represent the as-is condition.
- . Doug and Lott questioned the validity of historical data for PCNs 74074A and 20012A. Wanted to verify with manufacturing personnel.

23 June 89:

- . Doug and Lott verified and confirmed the flow hour information.
- . Reviewed the re-runs of model output.
- . Bob compiled the meeting of minutes and reviewed with team members.

6-29-89

WR-ALC  
Model Validation Meeting Minutes  
Page Eight

- WR-ALC/AFLC/MDMSC validation team agrees that the model seems to represent the approximation of as-is condition of RCCs MANPSA, MANPSB, MANPSC, MANPSD, MANPGA, MANPGB and MANPGC; therefore, the model can be used as a baseline for experimentation.

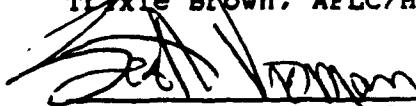
\_\_\_\_\_  
Doug Keene, WR-ALC/MANEE

\_\_\_\_\_  
Lott Singletary, WR-ALC/MANEE

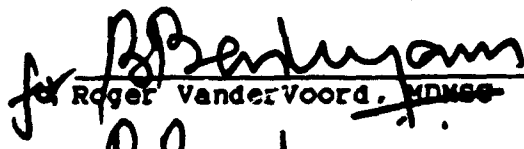
\_\_\_\_\_  
Jim Gillis, WR-ALC/MAWF

\_\_\_\_\_  
Gerald Peavy, WR-ALC/MAWF

\_\_\_\_\_  
Trixie Brown, AFLC/MAQF

  
\_\_\_\_\_  
Scott Vroman, MDMSC

  
\_\_\_\_\_  
Bill Rich, MDMSC

  
\_\_\_\_\_  
for Roger VanderVoord, MDMSC

  
\_\_\_\_\_  
Bob Bashyan, MDMSC



## **7.0 COMPUTER SIMULATION ANALYSIS OF RCC**

The computer simulation analysis for RCC MANPSA was previously submitted under memo number NKE-E016-7603, dated July 6, 1989.

## **8.0 VALIDATION OF SIMULATION ANALYSIS**

The validation of simulation analysis for RCC MANPSA was previously submitted under memo number NKE-E016-7603, dated July 6, 1989.

## **9.0 BRAINSTORMING**

The minutes for RCC MANPSA brainstorming were previously submitted under memo number NKE-E016-7603, dated July 6, 1989.

**MINUTES OF  
BRAINSTORMING SESSIONS**

**June 20, 1989**

**WR-ALC/MDMSC**

**MINUTES OF BRAINSTORMING  
SESSION FOR FOUR SHEET METAL RCCs  
- June 20, 1989 Morning Session -**

Jim Gillis started the brainstorming session by introducing the facilitator Bruce Kirk of MDMSC. The following were in attendance for this session:

|                    |               |
|--------------------|---------------|
| Bashyam, Bob       | MDMSC         |
| Gillis, Jim        | WR-ALC/MAWF   |
| Jackson, John      | WR-ALC/MANERS |
| Keene, Doug        | WR-ALC/MANEE  |
| Kirk, Bruce        | MDMSC         |
| Kittrell, Don      | WR-ALC/MANSCA |
| Morrison, Michael  | WR-ALC/MANERS |
| Nicholson, Richard | WR-ALC/MANERS |
| Powell, David      | WR-ALC/MANPSA |
| Rich, Bill         | MDMSC         |
| Singletery, Lott   | WR-ALC/MANEE  |
| VanderVoord, Roger | MDMSC         |
| Warnock, Kevin     | WR-ALC/MANEE  |
| Williams, Sam      | WR-ALC/MANPSA |

Bruce Kirk being the facilitator briefed to participant the process of brainstorming. Bruce emphasized flow time is the quality characteristic that we are trying to improve or minimize. With that round robin solution presentation process started. Following are the suggestions:

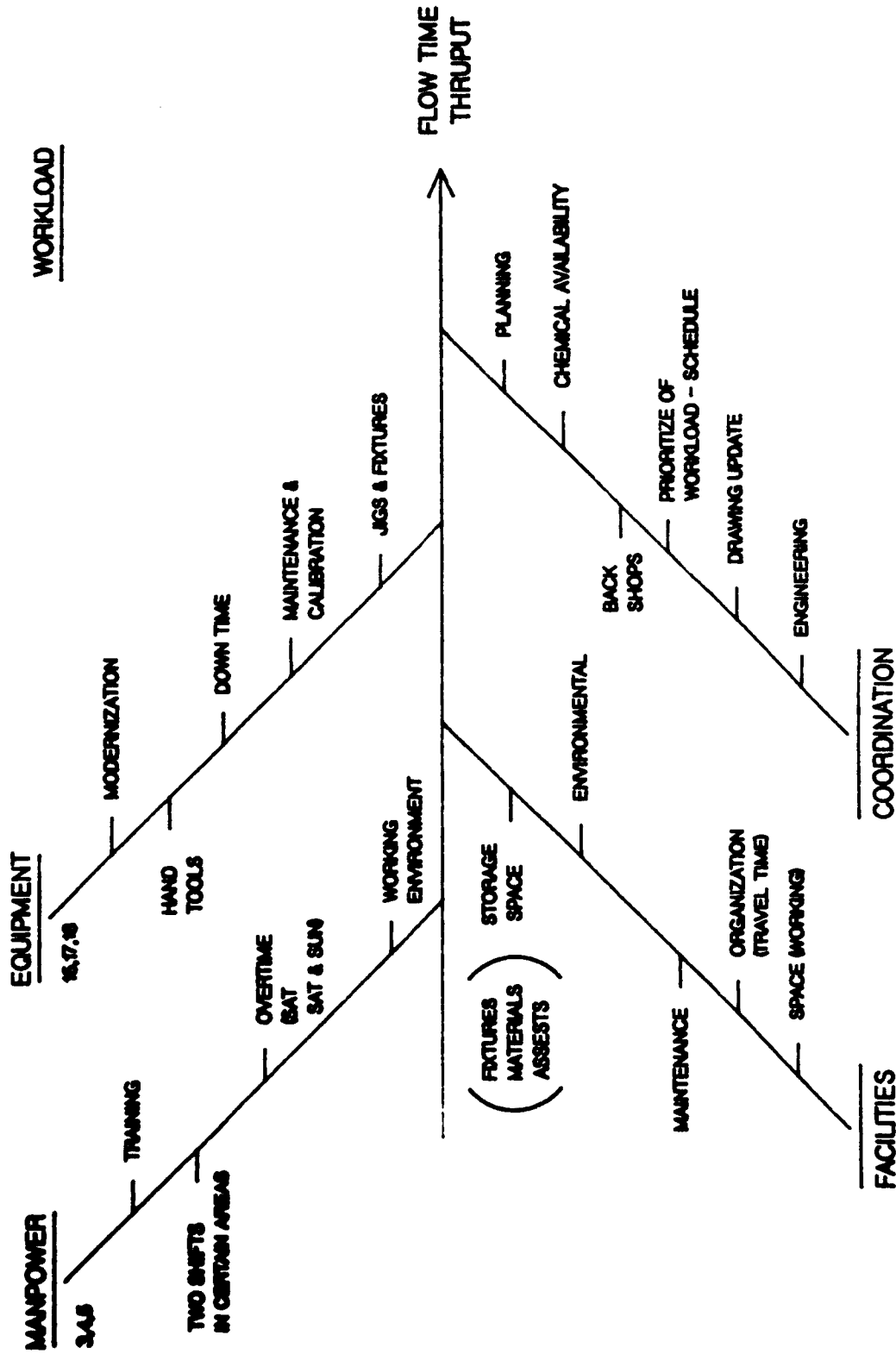
1. Time in Wet Clean (Back Shop).
2. Prioritize of workload (F-15 first).
  - a. May stop in middle of repair to respond.
  - b. Demand system.
3. Manpower.
4. Training shop - mechanics get transferred to F-15 Shop.

**Minutes of Brainstorming Session  
June 20, 1989 Morning Session  
Page Two**

5. Two shifts in certain shops.
6. Lack of space and environmental control.
7. No storage space for fixtures etc.
8. Chemical availability - anodize, etc.
9. Hand tools - proper matching to job. Prompt replacement of broken tools. Resizing the tool box may improve space.
10. Workload - need better forecasting.
11. RCC MANPSB completes then ships to storage - delay 10 to 15 days to get the same part back in finishing the repair.
12. Major repair coordination with Engineering - delays.
13. Update drawings requires 60 days.
14. Expedite travel of prioritize parts.
15. Space organization.
16. Equipment modernization.
17. Equipment preventive maintenance and calibration.
18. Jigs and fixtures - modify to ease use without removal. Work stand - better accessibility.

**DEVELOPED FISHBONE (CAUSE AND EFFECT) DIAGRAM.**

# SHEET METAL SHOP FISHBONE - CAUSE & EFFECT DIAGRAM



Ref: MONTANA

## EXPERIMENTATION ANALYSIS AFTER BLOCK I SUBMITAL

AS PER WR-ALC TEAM REQUEST THE FOLLOWING ACTION TOOK PLACE TO CLARIFY THE FOCUS STUDY ON C-141 AILERON FIXTURE.

- REVIEWED THE INPUT FILE AND FOUND EQUIPMENT QUANTITY FOR C-141 WERE USED ONLY FOR LEFT SIDE AILERON ONLY. WORKLOAD WERE BOTH LEFT AND RIGHT AILERON. IN OTHER WORDS THE RUNS WERE EXECUTED FOR BOTH LEFT AND RIGHT AILERON USING ONLY LEFT FIXTURE. VERIFIED THIS WITH WR-ALC TEAM AND THEY CONCURRED TO MY FINDINGS.
- EXECUTED THREE RUNS WITH BOTH LEFT AND RIGHT FIXTURE WITH BASE, BASE+, AND BASE++ FACTORS. (REF: EXP. NO. 3 OF TABLE X) REVIEW OF THE OUTPUT SHOWED A GOOD TREND FOR AILERON. AT BASE+ CONDITION THROUGHPUT INCREASED FROM 8 TO 17 AND AT BASE++ THE QTY. WENT FROM 38 TO 80. ALSO COMPILED THE FLOW CHRS



DURING [REDACTED] 1635 HRS, IN BASE FIX  
CONDITION.

- THREE OTHER RUNS (REF EXP. NO. 2) WERE PROCESSED, WITH LEFT AILERON FIXTURE ONLY, BY CONTROLLING WORK IN PROCESS TO QTY.

RESULTS WERE NOT WHAT WE ANTICIPATED. BOTTLENECK WAS MOVED AND SHOWED PROBLEM IN MEETING THROUGHPUT EVEN AT AS IS CONDITION DROPPED THIS IDEA AND THANKED THE CAPABILITY OF SIMULATION MODEL.

- REVIEWED THE PSEUDO WCD WHICH WAS DEVELOPED AT WR-ALC. AS PER THIS PSEUDO WCD THE AILERON (PEN 05502A) WAS REPAIRED BY MOUNTING ON FIXTURE FROM OPERATION 100 TO OPERATION 400. Due to Queing up problem Revised the PSEUDO WCD AND EXECUTED THREE MORE RUNS.

RESULTS SHOW THAT THERE IS A TREND OF INCREASE IN THROUGHPUT WHEN QTY OF FIXT IS CHANGED AND WITH A REVISED WCD.

AND WERE NOT PROCESSED  
MANPOWER ALL IN FIRST SHIFT FOR  
A COMPARISON PURPOSE.

COMPARISON OF THESE THREE RUNS  
SHOW THAT : a) THROUGHOUT CAN BE  
ACCOMPLISHED AT AS-IS (BASE) CONDITION,  
b) BUT BASE + AND BASE ++ COULD  
PROVIDE QUALITY END ITEM CONSISTENTLY  
AT LESS COST.

- RAN ONE RUN WITH SURGE FACTOR.  
IT SHOWS THIS RLC MANPSA WILL  
HAVE PROBLEM IN MEETING SURGE.  
ALLOCATION OF <sup>ADEQUATE</sup> WGT TO RETAL  
ADDR UNLESS COULD HELP TO  
MEET SURGE REQUIREMENT

- TABL X -

MANPSA

WE-ALC

| EXM NO. | DESCRIPTION                                          | RCC    | THROUGHPUT NO: 514 | 05502 AILERON THROUGHPUT |
|---------|------------------------------------------------------|--------|--------------------|--------------------------|
| 1.      | 1 <sup>ST</sup> EXPERIMENTATION RESULTS              | R1 528 | R2 446             | R3 480                   |
| 2.      | WITH WIP-2 CHG. QTY OF FIXTURE.                      | 429    | 450                | 459                      |
| 3.      | CHG. QTY. OF FIXTURE ONLY                            | 522    | 453                | 521                      |
| 4.      | CHANGE PRESS. CHG. QTY OF GRIP. DELETE WK-END RUN-3. | 522    | 466                | 517                      |

STORAGE - BASE 1099 INDUCTION 1215.

NOTE: (ASSUMPTIONS FOR EXP NO 1, 2 & 3 ONLY)

R1 = BASE = AS IS CONDITION = (EXP NO 1) USED 1 LH FIXT FOR AILERON

R2 = BASE + = PSEUDO WCD = AILERON FIXTURE QTY FOR: EXP NO #1 = 1, EXP NO 2

R3 = BASE + + = PSEUDO WCD = AILERON FIXTURE QTY FOR: EXP NO #1 = 3, EXP NO 2

EXP NO. 4.

R1 = BASE = ALL MP IN 1<sup>ST</sup> SHIFT = AS IS CONDITION

R2 = BASE + = ALL MP IN 1<sup>ST</sup> SHIFT = REVISED PSEUDO WCD = AILERON

R3 = BASE + + = ALL MP IN 1<sup>ST</sup> SHIFT = REVISED PSEUDO WCD = AILERON

2. PSSD/RCC 3. MATERIAL

MPSAC

9. MODEL/DESIGN/SERIES 10. NOUN

AILERON

12. BCN 12A. SER NO.

13. TECH DATA/OPTIONAL

1-1-2, 1C-141B-3, 1-1A-8

1C-141B-36, 1C-141B-23

1C-141B-4, 1-1-8, 3W39022

14. PART NUMBER 15. STOCK NR. 16. PDN 17. BCN

8130281-10 1560011287501 JH 05502A 806445

8130281-20 1560011287502 JH 05503A 806446

18. DISF-19. PDN/

STATION/OP NO.

20. WORK TO BE ACCOMPLISHED

21. MECH 22. P 23. Q

169

010

MNCSA

REMOVE HONEYCOMB LEADING EDGES & TAB. ROUTE AILERON & COMPONENTS TO MNPDD7 (BLDG. 180)

B

20.

180

020

MNPDD7

REPAINT/CLEAN/TREAT CORROSION IAW T.O. 1-1-2, SECTION VI

.5

169

030

MNPSA

DISASSEMBLE DAMAGED LEADING EDGES; INSPECT AND REPAIR PER SUPPLEMENTAL WCD MBA17Y

12.5

169

040

MNPSA

INSPECT/REPAIR DAMAGED LEADING EDGE SHROUDS.

12.

169

050

MNPSA

REMOVE/INSPECT/REPAIR AILERON TAB PER SUPPLEMENTAL WCD MBA17Y.

12.

169

060

MNPSA

POSITION AILERON ON 3 WORK TABLES AND MAKE HINGE ALIGNMENT CHECK USING BAR CHECK FIXTURE. RECORD FINDINGS

4.

169

070

MNPSA

REMOVE CHECK FIXTURE.

2

169

080

MNPSA

REMOVE AND ROUTE BEARINGS WITH SUPPLEMENTAL WCD MBA17Y

6

6

WORK CONTROL

8.DISP-19.PDN/

TATION/OP NO. 120.MNPSA

|     |     |                                                                                                                                                                  |  |   |            |
|-----|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---|------------|
| 169 | 090 | PRIOR TO CLOSURE, INSPECT AREA FOR FOD.<br>INVENTORY LIST/FILE OF MATERIAL                                                                                       |  |   | 11.0       |
| 169 | 100 | REMOVE BOTTOM SKIN, P/N 3W3400 8-124 (R/H) OR 3W3400 8-123 (L/H).<br>NOTE: OLD SKIN WILL BE USED AS A DRILL TEMPLATE. SALVAGE DOOR CUT OUT DOUBLER, P/N 3W34920. |  |   | 10.        |
| 169 | 110 | INSTALL NEW FITTINGS AND RIB CAPS IAW DRAWING 3W39022. (REPAIR/REPLACE RIB WEBS IF NEEDED).                                                                      |  | B | 50.<br>40. |
| 169 | 120 | REMOVE LOWER BEAM CAP (SPAR) AND SPLICE ANGLES/DOUBLERS.                                                                                                         |  | B | 10.        |
| 169 | 130 | CONDUCT EDDY CURRENT SURFACE SCAN OF SALVAGED LOWER BEAM CAP SPLICE AREA PER DETAIL #31 OF DRAWING 3W3922.<br>RECORD FINDINGS                                    |  | K | 0.5        |
| 169 | 140 | CONDUCT BOLT HOLE EDDY CURRENT INSPECTION OF INDICATED HINGE FITTING ATTACH HOLES THRU WEB AND UPPER BEAM CAP PER DETAIL                                         |  | K | 0.5        |
| 169 | 150 | VISUAL INSPECT AILERON MAIN BEAM WEB FOR DAMAGE AND CORROSION. REPAIR/REPLACE AS NEEDED.                                                                         |  | B | 14.        |
| 169 | 160 | INSTALL NEW LOWER BEAM CAP AND SPLICE ANGLES/DOUBLERS.                                                                                                           |  | B | 20.        |
| 169 | 170 | DRILL NEW SKIN USING OLD SKIN AS PATTERN. MAKE ALL CUT OUTS PER DRAWING 3W39022.                                                                                 |  |   | 14.        |
| 169 | 180 | BOND SHIM TO HINGE PLATE ATTACH POINT.                                                                                                                           |  |   | 4.         |
| 169 | 190 | PRIOR TO CLOSURE, INSPECT AREA FOR FOD.                                                                                                                          |  | B | 1.         |
| 169 | 200 | INSTALL NEW SKIN, DOUBLERS, AND DOORS.                                                                                                                           |  | B | 20.        |
| 169 | 210 | INSTALL BEARINGS.                                                                                                                                                |  |   | 8.         |

143 45

# WORK CONTROL

19.DISP-19.PDN/  
ATION/OP NO.

|     |               |                                                                                                                                                                                                                                      |               |               |   |  |                      |
|-----|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------|---|--|----------------------|
| 169 | 240<br>MNPSA  | VISUAL INSPECT/REPAIR ASSY.                                                                                                                                                                                                          |               |               |   |  | 24.0                 |
| 169 | 250<br>MNPSA  | VISUAL INSPECT/REPAIR STRUCTURAL DAMAGE IAW T.O. 1C-141B-3, SECTION II                                                                                                                                                               |               |               | B |  | 40.0<br>50.0<br>30.0 |
| 169 | 260<br>MNPSDP | INSPECT/REPAIR FIBERGLASS TRAILING EDGE IAW T.O. 1-1-14 AND T.O. 1C-141B-3.                                                                                                                                                          |               |               | B |  | 0.5                  |
| 169 | 270<br>MNPSA  | ROUTE MISC PARTS TO MNPDJ FOR HEAT TREAT., IAW SUPPLEMENT SHEET MBD17Y                                                                                                                                                               |               |               |   |  | 0.5                  |
| 169 | 280<br>MNPSA  | ROUTE MISC PARTS TO MNPDJ FOR PLATING. IAW SUPPLEMENT SHEET MBD17Y.                                                                                                                                                                  |               |               |   |  | 1.0                  |
| 169 | 290<br>MNPSA  | REMOVE STATIC DISCHARGES. CHECK FOR CORROSION. REPAIR OR REPLACE IAW T.O. 1C-141B-3 AND T.O. 1C-141B-2-2JG-3-2.<br>NOTE: USE ADHESIVE 8030011186251 (PROSEAL 872). CURE AS REQUIRED. SEAL STATIC DISCHARGES WITH MIL-S81733 SEALANT. |               |               | B |  | 12.0                 |
| 169 | 300<br>MNPSA  | CHECK HYDRAULIC HOSES AND REPLACE IF NECESSARY IAW T.O. 42E 1-1-1.                                                                                                                                                                   |               |               | B |  | 2.0                  |
| 169 | 310<br>MNPPCD | PERFORM ELECTRICAL RESISTANCE CHECK ON EACH STATIC DISCHARGER RETAINER. REF. T.O. 1C-141B-2-2JG-3-2 AND LAC PROCESS SPEC. 2058.                                                                                                      |               |               | B |  | 0.5                  |
| 169 | 320<br>MNPSA  | INSPECT/REPAIR/REPLACE DAMAGED UPPER SPAR SHROUDS.                                                                                                                                                                                   |               |               |   |  | 2.5                  |
| 169 | 330<br>MNPSA  | INSPECT AILERON IN FIXTURE PRIOR TO FINAL ALIGNMENT CHECK                                                                                                                                                                            |               |               |   |  | 2.0                  |
| 169 | 340<br>MNPSA  | MILL SHIM.                                                                                                                                                                                                                           | 1.00          | 2.00          | B |  | 2.0                  |
| 169 | 350<br>MNPSA  | INSPECT TAB HINGES PRIOR TO TAB INSTALLATION USING BAR CHECK FIXTURE.                                                                                                                                                                | 3.0<br>IC 2.0 | 3.0<br>SC 0.5 |   |  | 2.0                  |
| 169 | 360<br>MNPSA  | INSPECT/REPAIR TAB BOOT. INSTALL TAB ON AILERON.                                                                                                                                                                                     | 3.5           | 4.0           | B |  | 10.0                 |
| 169 | 370<br>MNPSA  | PRIOR TO INSTALLING LEADING EDGES, INSPECT AILERON INTERIOR FOR FOD.                                                                                                                                                                 | 1.0           | 2.0           | B |  | 1.0                  |

103 #3 #4

| 9. DISP-19. PDN/ |               | 20. WORK TO BE ACCOMPLISHED                                                                                                                             | 121. MECH | 122. P | 123. Q |      |
|------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------|--------|------|
| ATION/OP NO.     |               |                                                                                                                                                         |           |        |        |      |
| 169              | 380<br>MNPSA  | ASSEMBLE AND INSTALL LEADING EDGES<br>USING MIL-S-8784 SEALANT.                                                                                         | 7.0       | 1.0    | B      | 20.0 |
| 169              | 390<br>MNPSA  | INSPECT/REPAIR/REPLACE LEADING EDGE<br>FAIRINGS.                                                                                                        | 3.5       | 6.0    | B      | 10.0 |
| 169              | 400<br>MNPSA  | SEAL ALL SEAMS, UPPER AND LOWER<br>SURFACES IAW T.O. 1C-141B-23.<br>INSPECT BEFORE PREPAINT. REMOVE<br>AILERON FROM FIXTURE.                            |           |        | B      | 8.0  |
| 169              | 405<br>MNPSA  | <del>POSITION AILERON ON JIG</del><br>MAKES AND MAKE FINAL HINGE<br>ALIGNMENT CHECK USING BAR<br>CHECK FIXTURE.<br>RECORD FINDINGS                      |           |        |        | 4.0  |
| 180              | 410<br>MNPDD7 | PREPAINT TREAT IAW T.O. 1-1-2 AND<br>T.O. 1-1-8.<br>NOTE: ITEM MUST BE PAINTED WITHIN<br>48 HOURS.<br>RECORD TIME: _____ DATE _____                     |           |        |        | 1.0  |
| 180              | 420<br>MNPDCF | APPLY FINISH TO AILERON<br>RECORD TIME _____ DATE _____                                                                                                 |           |        | B      | 8.0  |
| 180              | 430<br>MNPDCF | FORTY-EIGHT HOURS AFTER PAINT,<br>PERFORM WET TAPE TEST IAW T.O. 1-1-8<br>NOTE: N/A IF NOT REQUIRED.<br>WET TAPE TEST STARTED:<br>TIME _____ DATE _____ |           |        | B      | 0.0  |
| 180              | 440<br>MNPDCF | PERFORM WEIGHT AND BALANCE.                                                                                                                             |           |        | B      | 0.0  |
| 169              | 450<br>MNPSA  | INSTALL WR-ALC DECAL IAW MAOI 66-40.<br>WORK UNIT CODE 14AA0. COMPLETE FORM<br>349.                                                                     |           |        |        | 1.0  |
| 169              | 460<br>MNPSA  | FINAL VISUAL INSPECT.                                                                                                                                   |           |        | B      | 0.5  |
| 169              | 470<br>MNPSA  | TAG AND TURN IN.                                                                                                                                        |           |        | B      | 1.0  |
|                  |               | MANE/88141<br>MANS/88141<br>MANP/88141<br>MAGN/88141                                                                                                    |           |        |        | 45.5 |

**MANPSA CONTROL FACTORS**  
**TABLE 10.4.2-1**

| BASE                                                                                                                                             | BASE+                                                                                                                                                                                                                                       | BASE++                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• INCREASE FY 88 WORKLOAD BY 130%.</li> <li>• ALL OTHER FACTORS REMAIN IN THE AS-IS CONDITION.</li> </ul> | <ul style="list-style-type: none"> <li>• INCREASE FY 88 WORKLOAD BY 130%.</li> <li>• WRITE PSUEDO WCD FOR C-141 AILERON - PCN 05502A.</li> <li>• MODIFY 1 SET (QTY 2) OF FIXTUREPM9450.</li> <li>• DESIGN &amp; BUILD CHECK BAR.</li> </ul> | <ul style="list-style-type: none"> <li>• INCREASE FY 88 WORKLOAD BY 130%.</li> <li>• WRITE PSUEDO WCD FOR C-141 AILERON - PCN 05502A.</li> <li>• MODIFY 1 SET (QTY 2) OF FIXTUREPM9450.</li> <li>• DESIGN &amp; BUILD CHECK BAR.</li> <li>• BUILD TWO MORE SETS (QTY 4) NEW FIXTURES FOR PCN 05502A.</li> </ul> |

LSC-20610



**MANPSA SHEET METAL SHOP TAGUCHI ORTHOGONAL ARRAY**  
**TABLE 10.4.2-2**

| RUN #         | FACTORS & LEVELS |       |          |     |           | WORKLOAD (THROUGHPUT)          |                 |                |  |
|---------------|------------------|-------|----------|-----|-----------|--------------------------------|-----------------|----------------|--|
|               | MANPOWER         |       | OVERTIME |     | EQUIPMENT | INDUCTIONS: 514: 130% OF FY 88 |                 |                |  |
|               | 1                | 2     | 3        | SAT | SUN       | AVG.                           | BEST            | WORST          |  |
| 1             | ALL              |       |          |     |           | 103.0 %                        | 51352A<br>117 % | 51454A<br>84 % |  |
| 2             | ALL              |       |          |     |           | 87.0 %                         | 51352A<br>115 % | 05502A<br>8 %  |  |
| 3             | ALL              |       |          | YES | YES       | 93.0 %                         | 51352A<br>115 % | 05502A<br>38 % |  |
| 4             | 50% 50%          |       |          |     |           | 96.0 %                         | 51352A<br>116 % | 05502A<br>53 % |  |
| 5             | 50% 50%          |       |          |     |           | 103.0 %                        | 51352A<br>114 % | 51454A<br>84 % |  |
| 6             | 50% 50%          |       |          | YES | YES       | 91.0 %                         | 51352A<br>115 % | 05502A<br>24 % |  |
| 7             | 1/3 1/3 1/3      |       | 1/3      |     |           | 87.0 %                         | 51352A<br>115 % | 05502A<br>8 %  |  |
| 8             | 1/3 1/3 1/3      |       | 1/3      |     |           | 101.0 %                        | 51352A<br>114 % | 05502A<br>82 % |  |
| 9             | 1/3 1/3 1/3      |       | 1/3      |     |           | 103.0 %                        | 51352A<br>115 % | 51454A<br>77 % |  |
| <b>SURGE*</b> | 50%**            | 50%** |          |     |           | 90.1 %                         | 51352A<br>109 % | 51454A<br>43 % |  |

**NOTES:**  
 \* INDUCTIONS = 1215 (4 QTRS)  
 \*\* TWO 12 HOUR SHIFTS.

LSC-20612

**MANPSA REVISED CONTROL FACTORS**  
**TABLE 10.4.2-3**

| BASE                                                                                                                                                                                              | BASE+                                                                                                                                                                                                                                                                                         | BASE++                                                                                                                                                                                                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• INCREASE FY 88 WORKLOAD BY 130%.</li> <li>• ALLOCATE ALL MANPOWER TO FIRST SHIFT.</li> <li>• ALL OTHER FACTORS REMAIN IN THE AS-IS CONDITION.</li> </ul> | <ul style="list-style-type: none"> <li>• INCREASE FY 88 WORKLOAD BY 130%.</li> <li>• ALLOCATE ALL MANPOWER TO FIRST SHIFT.</li> <li>• REVISE PSUEDO WCD FOR C-141 AILERON - PCN 05502A.</li> <li>• MODIFY 1 SET (QTY 2) OF FIXTUREPM9450.</li> <li>• DESIGN &amp; BUILD CHECK BAR.</li> </ul> | <ul style="list-style-type: none"> <li>• INCREASE FY 88 WORKLOAD BY 130%.</li> <li>• WRITE PSUEDO WCD FOR C-141 AILERON - PCN 05502A.</li> <li>• MODIFY 1 SET (QTY 2) OF FIXTUREPM9450.</li> <li>• DESIGN &amp; BUILD CHECK BAR.</li> <li>• BUILD THREE MORE SETS (QTY 6) NEW FIXTURES FOR PCN 05502A.</li> </ul> |

**NOTE:** REVISED PSUEDO WCD - PCN 05502A RESULTS FROM THE MODIFIED LSC-20611  
FIXTURE USED AT OP. 265 INSTEAD OF OP. 400. REVISED PSUEDO WCD  
IS DEPICTED IN 6.0 OF MANPSA DDB.

# MANPSA SHEET METAL SHOP MODEL RESULTS

TABLE 10.4.2-4

| RUN # | FACTORS & LEVELS |   |   |          |     |         | AVG. | 05502A | 05502A |           |
|-------|------------------|---|---|----------|-----|---------|------|--------|--------|-----------|
|       | MANPOWER         |   |   | OVERTIME |     |         |      |        |        | EQUIPMENT |
|       | 1                | 2 | 3 | SAT      | SUN |         |      |        |        |           |
| 1     | ALL              |   |   |          |     | BASE    | 522  | 93     | 1219   |           |
| 2     | ALL              |   |   |          |     | BASE +  | 466  | 25     | 4923   |           |
| 3     | ALL              |   |   |          |     | BASE ++ | 517  | 80     | 1956   |           |

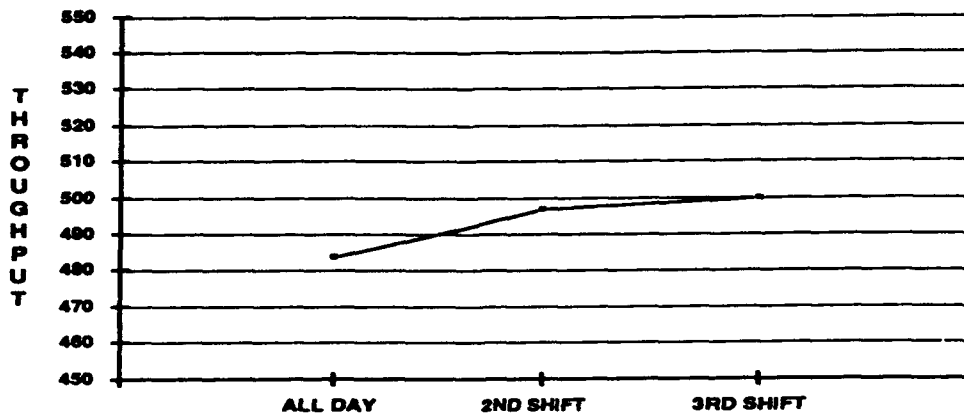
LSC-20613

# MANPSA SHEET METAL TAGUCHI ORTHOGONAL ARRAY

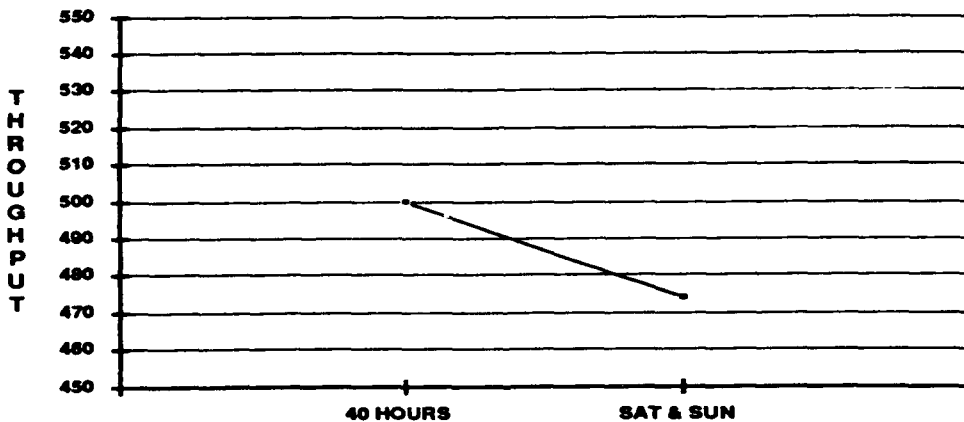
TABLE 10.1.1.1

| RUN # | FACTORS & LEVELS |   |          |     |           | WORKLOAD (THROUGHPUT) |     |       |      |    |
|-------|------------------|---|----------|-----|-----------|-----------------------|-----|-------|------|----|
|       | MANPOWER         |   | OVERTIME |     | EQUIPMENT | 130% OF FY 88         |     | SURGE |      |    |
|       | 1                | 2 | 3        | SAT | SUN       |                       | QTY | %     | QTY  | %  |
|       |                  |   |          |     |           |                       |     |       |      |    |
| 1     | ALL              |   |          |     |           | BASE                  | 528 | 100   | 723  | 60 |
| 2     | ALL              |   |          |     |           | BASE +                | 446 | 87    |      |    |
| 3     | ALL              |   |          | YES | YES       | BASE ++               | 480 | 93    | 1040 | 86 |
| 4     | 50% 50%          |   |          |     |           | BASE ++               | 496 | 96    |      |    |
| 5     | 50% 50%          |   |          |     |           | BASE                  | 530 | 100   |      |    |
| 6     | 50% 50%          |   |          | YES | YES       | BASE +                | 467 | 91    |      |    |
| 7     | 1/3 1/3 1/3      |   | 1/3      |     |           | BASE +                | 446 | 87    |      |    |
| 8     | 1/3 1/3 1/3      |   | 1/3      |     |           | BASE ++               | 523 | 100   |      |    |
| 9     | 1/3 1/3 1/3      |   | 1/3      |     |           | BASE                  | 531 | 100   |      |    |

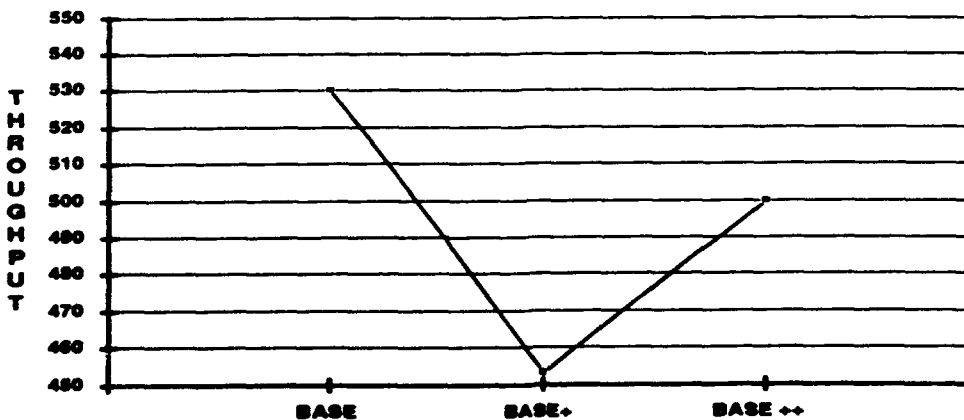
### MANPOWER DISTRIBUTION



### OVERTIME



### FIXTURES/EQUIPMENT



## MANPSA EXPERIMENTATION RESULTS

## MANPSA - WRALC

### FACTORS / ASSUMPTIONS

BASE : INCREASE FY88 WORKLOAD BY 130%. AND USE ALL OTHER RESOURCE AS IN "AS-IS" CONDITION.

BASE+ : . INCREASE FY88 WORKLOAD BY 130%.  
• PROCESS PSEUDO WCD FOR PCN 05502A - C141 AILERON.  
• MODIFY THE EXISTING 1 SET OF FIXTURE (PM 9450) - CODE NEWFX.  
• DESIGN AND BUILD CHECK BAR.  
CODE: CHBAR.

BASE++ : . INCREASE FY88 WORKLOAD BY 130%.  
• PROCESS PSEUDO WCD FOR PCN 05502A C141 AILERON.  
• MODIFY THE EXISTING 1 SET OF FIXTURE (PM 9450) - CODE: NEWFX.  
• BUILD 2 MORE SET OF FIXTURE  
CODE: NEWFX.  
• DESIGN AND BUILD CHECK BAR

## WRALC - MANPSA

### SURGE:

WORKLOAD - INCREASE EXPERIMENTATION  
WORKLOAD, WHICH IS 130% OF FY88, BY  
THE % OF FY90 SURGE REQ.

| WEAPON SYSTEM | SURGE %                |
|---------------|------------------------|
| C141          | <sup>FY90</sup><br>246 |
| C130          | 159                    |
| F15           | 61                     |

EXECUTE RUN #1 & RUN #3 FOR THE  
SENSITIVITY ANALYSIS WITH MANDNER  
SPREAD BETWEEN (2) SHIFTS 12HRS  
PER SHIFT AND 5 DAYS A WEEK.

WR - ALC  
MANPSA

Manpower

$$\textcircled{1} \quad \frac{528 + 446 + 480}{3} = \frac{1454}{3} = 484 = 94\%$$

$$\textcircled{2} \quad \frac{496 + 530 + 467}{3} = \frac{1493}{3} = 497 = 96\%$$

$$\textcircled{3} \quad \frac{446 + 523 + 531}{3} = \frac{1500}{3} = 500 = 97\%$$

OVERTIME

$$\frac{480 + 467}{2} = \frac{947}{2} = 474 = 92\%$$

$$\text{Averages} = \frac{R1}{528} + \frac{R2}{446} + \frac{R4}{496} + \frac{R5}{530} + \frac{R7}{446} + \frac{R8}{523} + \frac{R9}{531} = \frac{3500}{7} = 500 = 97\%$$

Fixture / Equipment

$$\text{Base : } \frac{528 + 530 + 531}{3} = \frac{1589}{3} = 529.6 = 103\%$$

$$\text{Base + : } \frac{446 + 467 + 446}{3} = \frac{1359}{3} = 453 = 88\%$$

$$\text{Base ++ : } \frac{480 + 496 + 523}{3} = \frac{1499}{3} = 500 = 97\%$$

L. 2.3



## MANPSA - WRALC

### SUMMARY:

REVIEWED THE RESULTS OF THE OUTPUT ANALYSIS OF THIS EXPERIMENTAL DESIGN FOR RCL MANPSA. THE RESULT DOES IDENTIFY THE AREA OF POTENTIAL IMPROVEMENT AND PROBLEM.

SIMULATION OUTPUTS INDICATES THAT THE 130% OF FY88 THROUGHPUT CAN BE ACCOMPLISHED WITH PRESENT MANPOWER AND FIXTURES. SPREADING OF MANPOWER SEEMS TO BE MORE EFFICIENT.

ANALYSIS OF OUTPUT DOES ALSO INDICATE THAT THE MODIFICATION OF FIXTURE ALONE WILL NOT IMPROVE THE THROUGHPUT OR FLOW TIME. BETTER ALLOCATION OF MANPOWER AND FINE TUNNING OF PROCESS IS ALSO NECESSARY.

RUN #1 OF SPRAE DOES NOT CONSIDERED FOR THROUGHPUT OF RCL ANALYSIS. BUT, BY ANALYSING THE THROUGHPUT BY PCN REVEALS THAT ON AN AVERAGE ONLY 56% CAN BE ACCOMPLISHED AT AS-IS CONDITION.

(MODIFIED)

\*\*\*\*\*  
 \* WORK CONTROL DOCUMENT MB017Y \* 1. DATE 88141 PAGE 1 OF 4 PAGES  
 \*\*\*\*\*  
 2. PSSD/RCC 3. MATERIAL 4. MIC 5. ERRC 6. QTY 7. SCHED DT 8. COMP DT  
 NPSAC  
 \*\*\*\*\*  
 9. MODEL/DESIGN/SERIES 10. NOUN AILERON 11. ITEM SERIAL  
 \*\*\*\*\*  
 12. BCN 12A. SER NO. 13. TECH DATA/OPTIONAL  
 1-1-2, 1C-141B-3, 1-1A-8  
 1C-141B-36, 1C-141B-23  
 1C-141B-4, 1-1-8, 3W39022  
 \*\*\*\*\*  
 14. PART NUMBER 15. STOCK NR. 16. PDN 17. BCN  
 8130281-10 1560011287501JH 05502A 806445  
 8130281-20 1560011287502JH 05503A 806446  
 \*\*\*\*\*  
 18. DISF-19. PDN/  
 STATION/OP NO. 20. WORK TO BE ACCOMPLISHED 21. MECH 22. P 23. Q  
 \*\*\*\*\*

|     |               |                                                                                                                    |  |  |   |      |
|-----|---------------|--------------------------------------------------------------------------------------------------------------------|--|--|---|------|
| 169 | 010<br>MNPSA  | REMOVE HONEYCOMB LEADING EDGES &<br>TAB. ROUTE AILERON & COMPONENTS<br>TO MNPDD7 (BLDG. 180)                       |  |  | B | 20.0 |
| 180 | 020<br>MNPDD7 | DEPAINT/CLEAN/TREAT CORROSION<br>IAW T.O. 1-1-2, SECTION VI                                                        |  |  |   | .5   |
| 169 | 030<br>MNPSA  | DISASSEMBLE DAMAGED LEADING<br>EDGES; INSPECT AND REPAIR PER<br>SUPPLEMENTAL WCD MBA17Y                            |  |  |   | 12.5 |
| 169 | 040<br>MNPSA  | INSPECT/REPAIR DAMAGED LEADING<br>EDGE SHROUDS.                                                                    |  |  |   | 12.0 |
| 169 | 050<br>MNPSA  | REMOVE/INSPECT/REPAIR AILERON<br>TAB PER SUPPLEMENTAL WCD<br>MBA17Y.                                               |  |  |   | 12.0 |
| 169 | 060<br>MNPSA  | POSITION AILERON ON 3 WORK<br>TABLES AND MAKE HINGE ALIGNMENT<br>CHECK USING BAR CHECK FIXTURE.<br>RECORD FINDINGS |  |  |   | 4.0  |
| 169 | 070<br>MNPSA  | REMOVE CHECK FIXTURE.                                                                                              |  |  |   | 2.0  |
| 169 | 080<br>MNPSA  | REMOVE AND ROUTE BEARINGS<br>WITH SUPPLEMENTAL WCD MB017Y                                                          |  |  |   | 6.0  |

60

| 8. DISP-19. PDN/<br>TATION: OP NO. | 20. WORK TO BE ACCOMPLISHED                                                                                                                                                                                      | 21. MECH | 22. P | 23. Q       |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------|-------------|
| 169 090<br>MNPSA                   | PRIOR TO BEGINNING EXTENDED REPAIR<br>INVENTORY KIT FOR COMPLETION<br>PER PACKING LIST/BILL OF MATERIAL.                                                                                                         |          | B     | 1.0         |
| 169 100<br>MNPSA                   | INSTALL AILERON IN WORK FIXTURE.<br>REMOVE BOTTOM SKIN, P/N<br>3W3400 8-124 (R/H) OR 3W3400-23<br>(L/H).<br>NOTE: OLD SKIN WILL BE USED AS<br>A DRILL TEMPLATE. SALVAGE<br>DOOR CUT OUT DOUBLER, P/N<br>3W34930. |          |       | 10.         |
| 169 110<br>MNPSA                   | INSTALL NEW FITTINGS AND RIB CAPS<br>IAW DRAWING 3W39022. (REPAIR/<br>REPLACE RIB WEBS IF NEEDED).                                                                                                               |          | B     | 50.<br>40.0 |
| 169 120<br>MNPSA                   | REMOVE LOWER BEAM CAP (SPAR) AND<br>SPlice ANGLES/DOUBLERS.                                                                                                                                                      |          | B     | 10.0        |
| 169 130<br>MQCFCP                  | CONDUCT EDDY CURRENT SURFACE SCAN OF<br>SALVAGED LOWER BEAM CAP SPlice AREA<br>PER DETAIL #31 OF DRAWING 3W3922.<br>RECORD FINDINGS.                                                                             |          | K     | 0.5         |
| 169 140<br>MQCFCP                  | CONDUCT BOLT HOLE EDDY CURRENT<br>INSPECTION OF INDICATED HINGE<br>FITTING ATTACH HOLES THRU WEB AND<br>UPPER BEAM CAP PER DETAIL                                                                                |          | K     | 0.5         |
| 169 150<br>MNPSA                   | VISUAL INSPECT AILERON MAIN BEAM<br>WEB FOR DAMAGE AND CORROSION.<br>REPAIR/REPLACE AS NEEDED.                                                                                                                   |          | B     | 14.0        |
| 169 160<br>MNPSA                   | INSTALL NEW LOWER BEAM CAP AND<br>SPlice ANGLES/DOUBLERS.                                                                                                                                                        |          | B     | 20.0        |
| 169 170<br>MNPSA                   | DRILL NEW SKIN USING OLD SKIN AS<br>PATTERN. MAKE ALL CUT OUTS PER<br>DRAWING 3W39022.                                                                                                                           |          |       | 14.0        |
| 169 180<br>MNPSA                   | BOND SHIM TO HINGE PLATE ATTACH<br>POINT.                                                                                                                                                                        |          |       | 4.          |
| 169 190<br>MNPSA                   | PRIOR TO CLOSURE, INSPECT AREA FOR<br>FOD.                                                                                                                                                                       |          | B     | 1.0         |
| 169 200<br>MNPSA                   | INSTALL NEW SKIN, DOUBLERS, AND<br>DOORS.                                                                                                                                                                        |          | B     | 20          |
| 169 210<br>MNPSA                   | INSTALL BEARINGS.                                                                                                                                                                                                |          |       | 8.0         |

19. DISP-19. PDN/  
 ATION: OP NO. 20. WORK TO BE ACCOMPLISHED 21. MECH 22. P 23. Q

|     |               |                                                                                                                                                                                                                                      |   |                                             |
|-----|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---------------------------------------------|
| 169 | 240<br>MNPSA  | VISUAL INSPECT/REPAIR UPPER BEAM ASSY.                                                                                                                                                                                               | B | 2.4.0                                       |
| 169 | 250<br>MNPSA  | VISUAL INSPECT/REPAIR STRUCTURAL DAMAGE IAW T.O. 1C-141B-3, SECTION II                                                                                                                                                               | B | <del>4.0.0</del><br><del>50.0</del><br>30.0 |
| 169 | 260<br>MNPSDF | INSPECT/REPAIR FIBERGLASS TRAILING EDGE IAW T.O. 1-1-14 AND T.O. 1C-141B-3.                                                                                                                                                          | B | 0.5                                         |
| 169 | 270<br>MNPSA  | ROUTE MISC PARTS TO MNPDAS FOR HEAT TREAT., IAW SUPPLEMENT SHEET MBD17Y                                                                                                                                                              |   | 0.5                                         |
| 169 | 280<br>MNPSA  | ROUTE MISC PARTS TO MNPDAS FOR PLATING. IAW SUPPLEMENT SHEET MBD17Y.                                                                                                                                                                 |   | 1.0                                         |
| 169 | 290<br>MNPSA  | REMOVE STATIC DISCHARGES. CHECK FOR CORROSION. REPAIR OR REPLACE IAW T.O. 1C-141B-3 AND T.O. 1C-141B-2-2JG-3-2.<br>NOTE: USE ADHESIVE 8030011186251 (PROSEAL 872). CURE AS REQUIRED. SEAL STATIC DISCHARGES WITH MIL-S81733 SEALANT. | B | 12.0                                        |
| 169 | 300<br>MNPSA  | CHECK HYDRAULIC HOSES AND REPLACE IF NECESSARY IAW T.O. 42E 1-1-1.                                                                                                                                                                   | B | 2.0                                         |
| 169 | 310<br>MNPPCD | PERFORM ELECTRICAL RESISTANCE CHECK ON EACH STATIC DISCHARGER RETAINER. REF. T.O. 1C-141B-2-2JG-3-2 AND LAC PROCESS SPEC. 2058.                                                                                                      | B | 0.5                                         |
| 169 | 320<br>MNPSA  | INSPECT/REPAIR/REPLACE DAMAGED UPPER SPAR SHROUDS.                                                                                                                                                                                   |   | 12.5                                        |
| 169 | 330<br>MNPSA  | INSPECT AILERON IN FIXTURE PRIOR TO FINAL ALIGNMENT CHECK                                                                                                                                                                            |   | 2.0                                         |
| 169 | 340<br>MNPSA  | MILL SHIM.                                                                                                                                                                                                                           | B | 2.0                                         |
| 169 | 350<br>MNPSA  | INSPECT TAB HINGES PRIOR TO TAB INSTALLATION USING BAR CHECK FIXTURE.                                                                                                                                                                |   | 2.0                                         |
| 169 | 360<br>MNPSA  | INSPECT/REPAIR TAB BOOT. INSTALL TAB ON AILERON.                                                                                                                                                                                     | B | 10.0<br><del>16.0</del>                     |
| 169 | 370<br>MNPSA  | PRIOR TO INSTALLING LEADING EDGES, INSPECT AILERON INTERIOR FOR FOD.                                                                                                                                                                 | B | 1.0                                         |

| 9. DISP-19. PDN/<br>ATION: OF NO. |               | 20. WORK TO BE ACCOMPLISHED                                                                                                                                | 21. MECH | 22. P | 23. Q |      |
|-----------------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------|-------|------|
| 169                               | 380<br>MNPSA  | ASSEMBLE AND INSTALL LEADING EDGES<br>USING MIL-S-8784 SEALANT.                                                                                            |          |       | B     | 20.0 |
| 169                               | 390<br>MNPSA  | INSPECT/REPAIR/REPLACE LEADING EDGE<br>FAIRINGS.                                                                                                           |          |       | B     | 10.0 |
| 169                               | 400<br>MNPSA  | SEAL ALL SEAMS, UPPER AND LOWER<br>SURFACES IAW T.O. 1C-141B-23.<br>INSPECT BEFORE PREPAINT. REMOVE<br>AILERON FROM FIXTURE.                               |          |       | B     | 8.0  |
| 169                               | 405<br>MNPSA  | POSITION AILERON ON 3 WORK<br>TABLES AND MAKE FINAL HINGE<br>ALIGNMENT CHECK USING BAR<br>CHECK FIXTURE.<br><br>RECORD FINDINGS                            |          |       |       | 4.0  |
| 180                               | 410<br>MNFDD7 | PREPAINT TREAT IAW T.O. 1-1-2 AND<br>T.O. 1-1-8.<br>NOTE: ITEM MUST BE PAINTED WITHIN<br>48 HOURS.<br>RECORD TIME: _____ DATE _____                        |          |       |       | 1.0  |
| 180                               | 420<br>MNFDCF | APPLY FINISH TO AILERON<br>RECORD TIME _____ DATE _____                                                                                                    |          |       | B     | 8.0  |
| 180                               | 430<br>MNFDCF | FORTY-EIGHT HOURS AFTER PAINT,<br>PERFORM WET TAPE TEST IAW T.O. 1-1-8<br><br>NOTE: N/A IF NOT REQUIRED<br>WET TAPE TEST STARTED:<br>TIME _____ DATE _____ |          |       | B     | 0.0  |
| 180                               | 440<br>MNFDCF | PERFORM WEIGHT AND BALANCE.                                                                                                                                |          |       | B     | 0.0  |
| 169                               | 450<br>MNPSA  | INSTALL WR-ALC DECAL IAW MAOI 66-40.<br>WORK UNIT CODE 14AA0. COMPLETE FORM<br>349.                                                                        |          |       |       | 1.0  |
| 169                               | 460<br>MNPSA  | FINAL VISUAL INSPECT.                                                                                                                                      |          |       | B     | 0.0  |
| 169                               | 470<br>MNPSA  | TAG AND TURN IN.                                                                                                                                           |          |       | B     | 1.0  |
|                                   |               | MANE/88141<br>MANS/88141<br>MANP/88141<br>MAON/88141                                                                                                       |          |       |       | 45.5 |

TECHNOLOGY INSERTION PROGRAM

WR-ALC

MANPS - SHEET METAL SHOP

Bob Bashyan  
Bill Rich

Possible Focus Study List

| <u>Description</u>                                                                                                                                          | <u>RCC</u>       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| 1. Study to Improve Facilities Layout for Building 169                                                                                                      | MANPSC<br>MANPSA |
| 2. Study to Improve Facilities Layout for Building 603                                                                                                      | MANPSD           |
| 3. Study to Improve Facilities Layout for Building 670                                                                                                      | MANPSD           |
| 4. Redesign/Modify Existing Jigs/Fixtures Such As Aileron Jig (Make Working Jig in lieu of Solely a Check Fixture)                                          | MANPSA<br>MANPSC |
| 5. Redesign/Modify Existing Holding Fixtures so as to Rotate/Lock Part Being Repaired for Better Access and Less Worker Strain                              | All              |
| 6. Study to Design Holding Fixtures (Customized Shape/Size to be Used in lieu of Flat-Top Tables)                                                           | All              |
| 7. Study to Make a Fully Computerized "Work Book" (WCD) System in lieu of Current Unreadable "Paper-Mill"                                                   | All              |
| 8. Study for CADAM Data Storage and Retrieval MASTER Dimension Control System for General Tool Dimensional Control as well as for Part/Assembly Data Source | All              |
| 9. Study to Complement LIFT Plan and to Determine/Assign Priorities for New, More Modern/Diverse Sheet Metal Machinery, Facilities, and Equipment           | All              |
| 10. Feasibility Study for WR-ALC to Manufacture C-141 Petal Door Outer/Inner Skin Assemblies In-House                                                       | All              |

**TECHNOLOGY INSERTION PROGRAM**

**WR-ALC**

**MANPS - SHEET METAL SHOP**

**Bob Bashyam  
Bill Rich**

**Possible Quick Fix List**

**Description**

**RCC**

- |                                                                                                                                               |                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| 1. Develop a Mechanic's "Hand Book" for Each Repaired Assembly                                                                                | All              |
| 2. Implement Mechanic "Buy-Maintain" (Buying Only Necessary Tools!) Tool-Set Program                                                          | All              |
| 3. Provide Heavy Cardboard Shipping Boxes for Small/Medium Size Parts                                                                         | All              |
| 4. Move Bond Mechanics Closer to the Autoclaves                                                                                               | MANPSA<br>MANPSC |
| 5. Provide Level Aileron Support Tables Until a Better Holding Fixture Can Be Provided                                                        | MANPSA           |
| 6. Provide Better Quality Drill Bits in lieu of the Current Re-Sharpended Ones                                                                | All              |
| 7. Provide Certain Mechanics with a Needed 45-Degree Angle Drill Attachment and an Approximate "3X" Rivet Gun (For 1/8"/5/32" Rivets)         | All              |
| 8. Provide Pictorial - Drawings with the Existing "Work Books" (WCD's)                                                                        | All              |
| 9. Review and Allocate Sufficient and Dedicated Work Space for Each Work Station                                                              | All              |
| 10. In Conjunction with 2 Above, Reduce Size of Mechanics Tool Box to Approximately 1/2 the Current Size (Thereby Saving Much Valuable Space) | All              |
| 11. Put More Emphasis on QP4:                                                                                                                 | All              |

*for 5 of 9*

Possible Quick Fix List (continued)

MANPS  
Bob Bashyan  
Bill Rich

Description

RCC

- |                                                                                                                                                                                         |        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 12. Include the Manufacturing Supervisor in ALL Task Force Formations When Quality/Production Would Be Discussed or/and Decisions Made to Affect Same                                   | All    |
| 13. Design/Build Aileron Tab Hinge Locator                                                                                                                                              | MANPSA |
| 14. Design/Build a "Newspaper Clipping Cutter" to Cut the Thin Skins on the C-141 Horizontal Stabilizer Leading Edges                                                                   | MANPSA |
| 15. Evaluate Cleanliness Condition in Work/Staging Area Near the Autoclaves in Building 169                                                                                             | MANPSA |
| 16. Review Safety Precautions in the Use of Methel-Ethel-Ketone (MEK), Depleted Uranium Counter-Balance Weights and Asbestos Clamps Used in Building 603 on the C-141 Wing Leading Edge | All    |
| 17. Senior Mechanics/Supervisors/Alternates should Outline the Repair Processes for the Repaired Assemblies (to be Used in Conjunction with 1 Above)                                    | All    |
| 18. Implement Methodology to Eliminate Missing Petal Door Strake Parts                                                                                                                  | MANPSA |
| 19. Use "T" Material (Form in "W" Temper) in lieu of "O"                                                                                                                                | All    |
| 20. Use Lockheed "Status" to Determine Latest Drawing/Effectivity                                                                                                                       | All    |
| 21. Certify Mechanic Doing Repair Work on the Horizontal Stabilizer Leading Edges for "Ohmmeter" and "Brazing" Use                                                                      | MANPSA |
| 22. Need "Window Area" Plot for F-15 Radome Repair Use                                                                                                                                  | MANPSD |

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Possible Quick Fix List (continued)

MANPS  
Bob Bashyan  
Bill Rich

Description

RCC

23. Need Holding/Support Fixtures for ALL Radomes
24. Move F-15 Canopy Repair Effort Out of Building 670
25. Provide Capability to Brush Alodine for Building 603
26. Remove C-130 Leading Edge (Unused) Jigs From Building 603
27. Need Better/Larger/Cleaner Toilet Facility for the Women Mechanics in Building 603
28. Need More Space for the C-141 Nozzles in Building 603
29. Need More Space for the Radomes in Building 670
30. Combine Repair Operations for the C-141 AFT Cowl Door to Use One (1) Mechanic in lieu of the Present Two (2)
31. Make Available to ALL ALC's Paul C. Bevan "Patch-Puller-Ring" for Fiberglass Repair
32. Encourage Suggestions Like Wendell Pittman's Investigation and Persistence in His Investigation of Missing Petal Door Strake Parts
33. Make Use of and Assign More Manufacturing Responsibility to the Planning Section for ALL Manufacturing/Engineering Coordination
34. Make Available Cobalt-Tipped Drill Bits, or Equipment, for Mechanic's Use for Drilling Out Fasteners

MANPSD

MANPSD

MANPSD

MANPSD

MANPSD

MANPSD

MANPSD

MANPSD

MANPSA

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Following are the Potential Improvements for Quick Fix.

10.0 WARNER ROBINS AIR LOGISTIC CENTER (WR-ALC)

10.1 QUICK FIX OPPORTUNITY TO DEVELOP A MECHANIC'S "HAND BOOK" FOR EACH REPAIRED ASSEMBLY. THE MECHANICS WOULD OUTLINE THE REPAIR PROCESSES FOR THE ASSEMBLIES BEING REPAIRED (MANPS).

10.1.1 Description of Current Operations

Most of the mechanic's training is received by actual "on-the-job" experience working with someone more experienced on the particular unit being repaired. Most experienced mechanics have made written notes to help guide them in the repair effort.

10.1.2 Description of Current Process Problems

The mechanic's sequence of tear-down, inspection and repair may vary compared with the WCD operation numbering. Certain peculiarities in the rework process may require a knowledge far in excess of the T.O. and the WCD instructions.

10.1.3 Description of New Process

Compile and publish a mechanic's training handbook written for each assembly being repaired in MANPS. The manual would compliment and supplement the Technical Orders and be compiled by training specialists using the experiences and input of the top mechanics currently doing the repair work as a guide. The training manual would be initiated to recognize the subtles of the repair process and would document all major steps and techniques of each repaired assembly unit. The Manual would be coordinated through the Training Monitor and the cognizent Process Engineer, Manufacturing Engineer, Planner, Production Supervisor and Quality People.

10.1.4 Rationale Leading to Change

The "Hand-Books" would help train new people in a rapid build-up such as a "Surge" or "War-Time" situation or in any crisis such as the present mechanics "turn-around" due to the F-15 wing effort or where a production rate increase would be necessary. Additional training and motivational courses would also be beneficial in conjunction with the "Hand-Books".

10.1.5 Estimated Cost Savings

Observations and interviews have indicated a potential average increase in efficiency for each new/old mechanic of 20% for the first 30 day period and a 10% increase thereafter.

10.1.6 Implementation Cost/Schedule

Cost of an existing training specialist to coordinate the inputs is estimated to be \$10,000 per annum (pro-rated).

Cost of preparing and reproducing each manual is estimated to \$10 per copy.

Implementation could be realized in about 60 days from "Go-Ahead".

10.2 QUICK FIX OPPORTUNITY TO IMPLEMENT MECHANIC "BUY - MAINTAIN" TOOL-SET PROGRAM (BUYING ONLY NECESSARY TOOLS, THEREBY REDUCING THE SIZE OF THE TOOL BOX) (MANPS).

10.2.1 Description of Current Operations

All sheet metal mechanics are issued a standard set of tools, a tool box and a tool stand with drawers. Some of the tools have an everyday use, some have a limited use and some of the tools issued are never used: For example, the rivet guns issued have limited use while the most widely used gun, (3X type for 1/8" and 5/32" ad rivets) is not included - neither has a 45 degree pneumatic angle drill attachment been included. There are other instances.

10.2.2 Description of Current Process Problems

In some instances the replacement of a broken tool takes up to several weeks for replacement. In the interim, the mechanic either uses a "loaner" from the tool crib or borrows/shares a tool with a team member. These large tool box/tool stand occupy much valuable space and to reduce the number of tools would save much space, by requiring much smaller box/tool stands.

10.2.3 Description of New Process

Other repair facilities require the mechanics to buy and maintain their own set of necessary tools. These companies establish the requirements for the tool set and assist the mechanics in selecting the manufacturers of the tools. Inferior quality items that do not hold up and which constantly require replacement are eliminated. The tool manufacturers most often offer a life-time guarantee and a substantial discount to the mechanic because of the volume purchases. This has proven to be cost effective in many instances, for maintenance facilities such as Eastern, Delta, Hayes and Lockheed Air Service, etc.

One or two sets of "Limited-Use Tools" could be issued to a RCC repair area for general use.

10.2.4 Rationale Leading to Change

- . The reduction of the number of tools/tool box/tool box stand by 50% would save much space.
- . Eliminate/reduce tool crib manpower and storage area.
- . Eliminate/reduce buying activity and expense.
- . Provide the mechanic with the necessary tools to work with!
- . Provide the mechanic with an expeditious way to replace broken tools.
- . Make the mechanic responsible for the tools that he uses to do his assigned tasks.

#### 10.2.5 Estimated Cost Savings

Interviews have indicated a possible savings of 10 man hours per week for each mechanic if he/she had a proper "Tool Set".

Observations have shown that a reduction in size due to the mechanic having only necessary tools from 6.50 square feet to 3.25 square feet would also save approximately 3 square feet per mechanic. This would be a significant amount of space to be gained in Building 670, for example.

#### 10.2.6 Implementation Cost/Schedule

The schedule and implementation cost would require further study and selection of tool needs, which would vary with each RCC, and tool suppliers.

10.4<sup>3</sup> QUICK FIX OPPORTUNITY TO MOVE BOND MECHANICS CLOSER TO THE AUTOCLAVES OR ALLOW THE REPAIR GROUP CLOSE TO THE AUTOCLAVE TO DO THE BOND WORK (MANPSA).

10.4<sup>3</sup>.1 Description of Current Operations

In addition to other miscellaneous small bonded assembly units, there are approximately fourteen (14) frame and longeron assemblies for the C-141 Petal and seven (7) Leading Edge Sections for the C-141, Aileron which require the units to be rebonded when they undergo repair.

10.4<sup>3</sup>.2 Description of Current Process Problems

The Aileron parts are rebuilt in W. Blackmon's area adjacent to the autoclave area and returned to S. Williams' control after completion, but the Petal Door parts are rebuilt in T. Cherry's area and then sent to rebond by the Petal Door mechanic and returned to him after completion. This is not an efficient flow of work effort.

10.4<sup>3</sup>.3 Description of New Process

(Need to "certify" all mechanics in Bond Shop.)

Move those workers closer to the autoclave who work/repair small bonded assemblies such as the frame assemblies for the C-141 Petal Doors and the C-141 Aileron Leading Edges, thereby reducing time lost by going back and to. (Always make the transit worker responsible to the Supervisor who is responsible for the final inspection and buy-off of the unit being repaired).

An alternate way to eliminate to and fro travel by the mechanics would be to allow the repair group close to the autoclave to do all the bond work.

10.4<sup>3</sup>.4 Rationale Leading to Change

Centralizing the bonding of small rebuilt assemblies would tend to:

- . Eliminate wasted time and steps.
- . Produce consistently better quality work.
- . Have the bonding operation in a cleaner and better controlled environment.
- . "Free" the "Home" mechanic to do more specialized work for which he is more qualified than others.

10.<sup>3</sup>.5 Estimated Cost Savings

It is estimated that a savings of 10 man hours per week could be realized.

10.<sup>3</sup>.6 Implementation Cost/Schedule

Cost of moving would be negligible and the schedule-to-move would be very flexible.



4  
10.5 QUICK FIX OPPORTUNITY TO PROVIDE LEVEL AILERON SUPPORT TABLES UNTIL A BETTER HOLDING FIXTURE CAN BE PROVIDED (MANPSA).

4  
10.5.1 Description of Current Operations

The support tables for the C-141 Ailerons are not all the same height requiring time and effort to level, per WCD instructions, before the Aileron can be worked. The Aileron must be level while skin work, hinge work, tab removal work or the leading edges are removed.

4  
10.5.2 Description of Current Process Problems

(The effort to level the tables has been in the planning stage for about a year or so, according to some interviewees in the area.)

4  
10.5.3 Description of New Process

Provide tables the same height to support the Ailerons (until customized cradle-type support holding fixtures are available).

4  
10.5.4 Rationale Leading to Change

The customized cradles will support the Ailerons and eliminate the "Man-handling" and "Flip-flopping" from side to side and also allow both sides and the beam/tab area to be worked simultaneously.

4  
10.5.5 Estimated Cost Savings

The level tables will save leveling time (usually 15-20 minutes) for 2 -3 mechanics and eliminate overhanging of the Aileron when tables are not available.

4  
10.5.6 Implementation Cost/Schedule

The cost and schedule of leveling the existing tables should be available through Kevin Warnock (926-4446).

10.5  
10.5 QUICK FIX OPPORTUNITY TO PROVIDE PICTORIAL - DRAWINGS  
WITH THE EXISTING "WORK BOOKS" (WCD'S) (MANPS).

10.5  
10.5.1 Description of Current Operations

The current copies of the WCD's (Work Books) are difficult to read and hard to understand. (This is true industry-wide.)

10.5  
10.5.2 Description of Current Process Problems

Mechanic personnel do not adequately use the WCD's for repair instructions! They do not make proper use of the T.O.'s either!

10.5  
10.5.3 Description of New Process

The Production Planner, with assistance from the Art Department, should provide a pictorial drawing, (exploded step-by-step drawing or otherwise), to accompany the "Work Book" (Work Control Document) to assist the worker to better understand the task and to help train others in a Surge or War-Time emergency situation.

10.5  
10.5.4 Rationale Leading to Change

New mechanics (and old mechanics, also) would be more productive and understand what they are doing if better work instructions were given them.

Most other repair facilities are using pictorial drawings to supplement the T.O.'s and the planning sheets, and quality has in most cases, improved considerably because the mechanic better understood what they were supposed to do.

10.5  
10.5.5 Estimated Cost Savings

It is estimated that the mechanic's efficiency would increase from 10% to 20% (but would vary with the individual) if he/she had a more comprehensive and understandable set of repair instructions to follow.

10.5  
10.5.6 Implementation Cost/Schedule

A full time illustrator to make the drawings would cost approximately \$20,000 per year and could reduce the planning staff by a like number due to a reduction in contacts from manufacturing. An estimate of about 30 - 90 days to hire the necessary people and organize the effort would be required.

<sup>6</sup>  
10.10 QUICK FIX OPPORTUNITY TO DESIGN/BUILD AILERON TAB HINGE LOCATOR (MANPSA).

<sup>6</sup>  
10.10.1 Description of Current Operations

The current method, when a tab hinge bracket has to be replaced, is to use the tab assembly as a tool and locate the bracket being replaced by using the tab. This is rather difficult to do because the tab leading edge is in the way which makes it hard to position and locate the required shims behind the new fittings.

<sup>6</sup>  
10.10.2 Description of Current Process Problems

A hinge locator and alignment tool is sorely needed to assist the replacement of an aileron tab hinge fitting on the C-141 Aileron rear beam.

<sup>6</sup>  
10.10.3 Description of New Process

A simple bar type locator tool would be sufficient and speed up the task.

<sup>6</sup>  
10.10.4 Rationale Leading to Change

Observation and interviews with the supervisor and several mechanics indicated the hinges replacement was a problem.

<sup>6</sup>  
10.10.5 Estimated Cost Savings

The hinge replacement requires an average of 10 man hours per Aileron to replace the bad tab hinge fittings. This time would be reduced to approximately 1/2 of this or about 5 man hours with a bar-type locator tool.

<sup>6</sup>  
10.10.6 Implementation Cost/Schedule

The cost of a simple bar-type tool would be the primary cost involved:

|                 |   |                            |
|-----------------|---|----------------------------|
| . Material Cost | = | \$500 (Steel tube and bar) |
| . Welding       | = | 100 (4 man hours)          |
| . Machining     | = | 300 (10 man hours)         |
| . Engineering   | = | 500 (8 man hours)          |

10.11.7 QUICK FIX OPPORTUNITY TO DESIGN/BUILD A "NEWSPAPER CLIPPING CUTTER" TO CUT THE THIN SKINS ON THE C-141 HORIZONTAL STABILIZER LEADING EDGES (MANPSA).

<sup>7</sup>  
10.11.1 Description of Current Operations

The thin .005 thick stainless steel cover skins for the C-141 Horizontal Stabilizer de-icer leading edge assemblies (8 per aircraft) must be removed in order to inspect and repair the embedded direct current wires and the heating elements.

<sup>7</sup>  
10.11.2 Description of Current Process Problems

The current way of skin removal is to cut and peel the cover skins using a wood chisel, tin snips, pliers, etc. to remove the skin without damaging the wires or the heating elements.

<sup>7</sup>  
10.11.3 Description of New Process

Design and make a depth cutter similar to the type cutter used to cut out newspaper clippings. This type cutter may be set to cut at a predetermined depth so as to cut the (.005) stainless steel thin skin cover and not cut the wires.

<sup>7</sup>  
10.11.4 Rationale Leading to Change

(Observation led to believing that a better way should be found.)

This new method of skin removal would allow the old skins to be removed in an easier manner thereby saving time and producing a neater and a more professional repair job.

<sup>7</sup>  
10.11.5 Estimated Cost Savings

A possible savings of two (2) man hours per leading edge section should be realized; for a total of eight (8) sections times two (2) equals sixteen (16) man hours saved per A/C.

<sup>7</sup>  
10.11.6 Implementation Cost/Schedule

The only cost would be the "Clipping-Cutter" design and machine costs which should not exceed \$200. Machine time for the cutter should be under \$100.

10.15<sup>8</sup> QUICK FIX OPPORTUNITY TO USE "T" MATERIAL (FORM IN "W" TEMPER) IN LIEU OF "O" (MANPS).

10.15.1<sup>4</sup> Description of Current Operations

Most all forming of aluminum for aircraft requires that the material be in soft condition, either in "O" condition or in "W" temper condition. Both conditions, "O" and "W" are of the same softness.

Most engineering drawings and/or material specifications call for the two material conditions to be used interchangeably.

10.15.2<sup>4</sup> Description of Current Process Problems

It is hard to store "O" condition material, easy to damage, and handle because of it's softness therefore it is better to buy and store aluminum in the "T" condition. There is also the possibility of a part made out of the "O" material getting on the structural airframe of an air vehicle, inadvertantly.

10.15.3<sup>4</sup> Description of New Process

The "O" material requires a heat treat operation after forming to bring the part to a hardened state or "T" condition. The "W" condition is produced by a heat treat operation from the "T" condition, formed into the desired state, then the material returns to a hardened "T" condition at room temperature without any further heat treat.

In the event that "W" condition aluminum alloy sheet is used in lieu of "O", the material must be stored in cold storage while it is awaiting it's time to be worked. It has a shorter work time when it removed from the "ice-box" due to the materials ability to return to a hardened state at room temperature.

It is suggested that certain selected parts such as reinforcement doublers and formed parts be looked at and made from "W" condition rather than "O" condition thereby reducing the inventory of "O" material and conceivably reducing material costs, by eliminating excess scrapage.

10.15.4<sup>4</sup> Rationale Leading to Change

Other production and repair facilities do not use and stock aluminum sheet stock in the "O" Temper in the thickness of .064 or less because of it's softness.

10.15.5 <sup>8</sup> Estimated Cost Savings

The cost savings would be indicated on the present scrappage cost which would be eliminated.

Scheduling is not available at this time.

10.15.6 <sup>8</sup> Implementation Cost/Schedule

Implementation of this suggestion requires selection of <sup>parts</sup> ~~pages~~ and procedure change. Estimated implementation time approximately 2 months.

10.17<sup>a</sup> QUICK FIX OPPORTUNITY TO CERTIFY MECHANIC DOING REPAIR WORK ON THE HORIZONTAL STABILIZER LEADING EDGES FOR "OHMMETER" AND "BRAZING" USE (MANPSA).

10.17.1<sup>a</sup> Description of Current Operations

The mechanic (Amanda Knight) has to use an Ohmmeter to check the continuity of the wiring on the C-141 Horizontal Stabilizer leading edge sections. These sections form an electrically de-iced section of the horizontal stabilizer. All sections are repaired either by repairing the wires and welding breaks in the mesh.

10.17.2<sup>a</sup> Description of Current Process Problems

The mechanic has to use the back shop on four (4) occasions for the use of the "Ohmmeter" or the "Welding Unit," usually making the trips herself, to verify the repair.

10.17.3<sup>a</sup> Description of New Process

In repairing the leading edge sections, the mechanic has to use an Ohmmeter to determine the repair so why not make it official by certifying the mechanic in it's use as well as the welding required to make the repairs to the mesh heating element.

10.17.4<sup>a</sup> Rationale Leading to Change

Discussed with Sonny Heard, Training, the possibility of training/certification of Amanda Knight and others, if necessary, to the use of the Ohmmeter and the Welding/Brazing unit which would eliminate the back shop work and the related expense of the mechanic hand carrying the parts to and from the electrical building.

10.17.5<sup>a</sup> Estimated Cost Savings

The elimination of four (4) back shop operations would save 4 times 2 man hours = 8 manhours per part; 8 parts times 8 man hours equals 64 man hours saved per aircraft.

10.17.6<sup>a</sup> Implementation Cost/Schedule

The mechanic has checked out an Ohmmeter for repair use. Kevin Warnock (926-4446) has moved a "welder" to Building 169 for the mechanic's use.

<sup>10</sup>  
10.19 QUICK FIX OPPORTUNITY TO NEED HOLDING/SUPPORT FIXTURES  
FOR ALL RADOMES (MANPSD).

<sup>10</sup>  
10.19.1 Description of Current Operations

The primary method of support for the radome repair in Building 670 is to place them directly on the floor. Some are elevated off the floor by the mechanics with 2 X 4's or other makeshift timbers.

Holding stands were made sometime back but are not being used and their whereabouts are now unknown.

<sup>10</sup>  
10.19.2 Description of Current Process Problems

Some workers have expressed a desire to have the radomes elevated for better access and comfort.

<sup>10</sup>  
10.19.3 Description of New Process

Holding stands/fixtures should be made to hold the radome on it's side and to allow the radome to be rotated. This method would be similar to the holding fixture currently being used with the C-141 nozzle repair effort.

10.19.4 Rationale Leading to Change

- . The radome would be accessible from one side thereby making better use of space.
- . Less worker fatigue.
- . Work efficiency increased.
- . Production rate increased.

<sup>10</sup>  
10.19.5 Estimated Cost Savings

An increase of work efficiency from 10% to 15% is predicted which should increase throughput by a like amount for all radomes being worked in Building 670.

<sup>10</sup>  
10.19.6 Implementation Cost/Schedule

The schedule and implementation costs will require further study based on an austere-type stand design.



10.21<sup>11</sup> QUICK FIX OPPORTUNITY TO PROVIDE CAPABILITY TO BRUSH  
ALODINE FOR BUILDING 603 (MANPSD).

10.21.1<sup>11</sup> Description of Current Operations

Parts requiring alodine treatment have to be taken to Building 180, which is about two (2) miles distance from 603.

10.21.2<sup>11</sup> Description of Current Process Problems

No alodine treatment is currently available because of the lack of waste treatment/disposal.

10.21.3 Description of New Process

Either one of the following:

- (1) Step up the existing "Fast-Flow" pick-up and delivery system for the parts.
- (2) Temporarily provide five (5) collection drums with adequate exhaust/vent system at Building 603 and transfer the toxic waste to a tank truck for disposal.
- (3) Tie in to an existing waste disposal line at Building 645.

10.21.4<sup>11</sup> Rationale Leading to Change

- . Flow time will be reduced.
- . Throughput will be increased.
- . Cost will be reduced.

10.21.5<sup>11</sup> Estimated Cost Savings

The estimated cost would be contingent on the decision as to the selection of (1), (2) or (3).

The (1) is estimated to be the least expensive and (3) the most expensive with (2) somewhere in between but only as a temporary measure. Number (3) would be the ideal method to provide treatment.

10.21.6<sup>11</sup> Implementation Cost/Schedule

Implementation cost and schedule is contingent on the process selected:

- (1) Shortest time to implement.
- (2) Somewhere in between (1) and (3).
- (3) Longest time.

<sup>12</sup>  
10.24 QUICK FIX OPPORTUNITY TO COMBINE REPAIR OPERATIONS FOR THE C-141 AFT COWL DOOR TO USE ONE (1) MECHANIC IN LIEU OF THE PRESENT TWO (2) (MANPSA).

<sup>12</sup>  
10.24.1 Description of Current Operations

The current way of reworking the C-141. AFT Cowl Door, is to have one mechanic to tear down the old assembly and salvage the salvagable hardware and miscellaneous parts and another mechanic in another area to repair/rebuild the bonded honeycomb section of the door. (A third mechanic is also involved by removing the door from the cowl - in another area.)

After the bonded section is completed, it is transported back to the "Tear-Down" area and reassembled by the first mechanic (who is not bond certified).

<sup>12</sup>  
10.24.2 Description of Current Process Problems

The current way of repairing the doors has no obvious problems with the exception of completion responsibility, and the excessive amount of flow time required between workers.

<sup>12</sup>  
10.24.3 Description of New Process

The entire operation for repairing the door should be done in one area and the part not moved back and forth from one area to another. The "Tear-Down" mechanic should be trained and certified for bond operations.

<sup>12</sup>  
10.24.4 Rationale Leading to Change

- . Eliminate duplicity of effort.
- . Decrease "Flow-Time".
- . Provide more trained workers.
- . Provide more versatile worker.

<sup>12</sup>  
10.24.5 Estimated Cost Savings

At least one (1) full time mechanic will be released for other work.

Flow time will be increased at least by the time required for the part to flow between the areas which is usually 4-6 hours per door.

By certifying ALL workers for bonding, a more versatile utilization of the worker is possible who in turn is more capable of training others.

10.2<sup>12</sup>4.6 Implementation Cost/Schedule

This may be done immediately with a very little cost effect to implement.

10.28<sup>13</sup> QUICK FIX OPPORTUNITY TO MAKE AVAILABLE COBALT-TIPPED DRILL BITS, OR EQUIVALENT, FOR MECHANIC'S USE FOR DRILLING OUT FASTENERS (MANPS).

10.28.1<sup>13</sup> Description of Current Operations

The present lot of resharpened drill bits, especially the sizes normally used to drill out rivets and other type fasteners are not properly ground on center and the tips are softer than the normal quality of new drill bits.

10.28.2<sup>13</sup> Description of Current Process Problems

These off-center and soft bits wander off-center when the fastener is drilled out sometimes enlarging the hole and requiring a backing strip, or making necessary the next size larger salvage rivet in the enlarged hole.

These drill bits are soft and consequently do not last - only a few holes - and they are dull.

10.28.3<sup>13</sup> Description of New Process

Provide the Sheet Metal Mechanic with a better quality drill bit such as a Cobalt tipped bit, or equivalent, to be used on High-Value assemblies when drilling out rivets, other type fasteners such as lock bolts or blind rivets and bolts.

10.28.4<sup>13</sup> Rationale Leading to Change

The current quality of resharpened drill bits is extremely poor, contributing to oversize and nonconforming holes, causing unnecessary work and much time lost.

Making available better quality drill bits for the mechanic's use, especially the sizes used to drill out fasteners will save time, money and provide a better quality product.

10.28.5<sup>13</sup> Estimated Cost Savings

It is estimated that around 20 man hours are lost per unit every week trying to make quality work with these inferior quality drill bits.

Observation and interviews have indicated that most mechanics are not using the resharpened bits but are obtaining better quality drill bits from other areas such as the F-15 wing effort which is supplied with better quality bits.

10.28.6<sup>13</sup> Implementation Cost/Schedule

Not available at this time.

Following are the Potential Improvements for Focus Studies.

10.A  
~~10.3~~ DB

QUICK FIX OPPORTUNITY TO PROVIDE HEAVY CARDBOARD  
RE-USABLE SHIPPING BOXES FOR SMALL/MEDIUM SIZE PARTS  
(MANPS).

10.3.1 Description of Current Operations

Parts are currently being moved from one area to another by hand-carrying or by laying loose on a rolling hand cart while they are being transported.

10.3.2 Description of Current Process Problems

10.3.3 Description of New Process

Heavy cardboard, reusable boxes should be used to protect the smaller parts when they are transported from one area or backshop to another area. These are sometimes called "Banana Boxes" because they are about the same shape and construction as the boxes used to ship bananas. These boxes would be similar to the ones used in the tubing/cable shop to contain and transport parts.

10.3.4 Rationale Leading to Change

10.3.5 Estimated Cost Savings

Using these boxes with styrofoam and/or "bubble wrap" will minimize damage to parts being transported.

10.3.6 Implementation Cost/Schedule

10.B  
of  
~~10.7~~

QUICK FIX OPPORTUNITY TO REVIEW AND ALLOCATE SUFFICIENT AND DEDICATED WORK SPACE FOR EACH WORK STATION (HANPS).

10.7.1 Description of Current Operations

Much confusion exists now in certain areas because of the lack of dedicated and sufficient space for the mechanic and the work he/she is required to do. Traffic cross-flow is bad and in some instances there is no assigned or dedicated work space for the mechanic to do his/her assigned task.

10.7.2 Description of Current Process Problems

The work space for a given repair task must be adequate to allow the work to be performed in the most timely and cost effective manner.

10.7.3 Description of New Process

Each work station must be designed and space allotted to allow the mechanic to do his/her assigned task without interruption from people passing by, cross-flow traffic from fellow workers, insufficient space and confusion.

As a stop-gap measure, (before an in-depth facilities layout can be made), each work station must be identified and permanently marked so that the mechanic assigned to that work station may work with a minimum of interruptions. Rails or fences should be considered to outline the stations.

10.7.4 Rationale Leading to Change

Observation of several areas in Building 169, such as the areas for the petal doors and ailerons for the C-141, led to this present condition.

10.7.5 Estimated Cost Savings

Time will be saved and/or work efficiency will be increased along with the production rate.

10.7.6 Implementation Cost/Schedule

Implementation cost would involve about 16 man hours to lay-out and mark that stations. Equipment needed such as rails are assumed to be available. The time to implement would approximate two (2) weeks for each area from go-ahead.

10.C  
DB  
~~10.8~~

QUICK FIX OPPORTUNITY TO PUT MORE EMPHASIS ON QP4!  
(MANPS).

10.8.1 Description of Current Operations

Some RCC repair units do not have an active QP4 team. Those that do are not allotted the necessary time to be effective - manpower seems to be the problem.

NOTE: QP4 is currently being revised and restructured. It is suggested that more recognition and prestige be given the group.

10.8.2 Description of Current Process Problems

10.8.3 Description of New Process

More emphasis should be placed on the "QP 4" team effort and to use these groups with greater visibility and recognition as problem solvers.

Long standing complicated problems have a greater chance of being solved when a QP4 team is active in the area.

10.8.4 Rationale Leading to Change

10.8.5 Estimated Cost Savings

- . More employee awareness and concern.
- . Better quality realized.
- . Better worker recognition and efficiency.
- . Money saved.

10.8.6 Implementation Cost/Schedule



10.D  
DB  
~~10.9~~

QUICK FIX OPPORTUNITY TO INCLUDE THE MANUFACTURING SUPERVISOR IN ALL TASK FORMATIONS WHEN QUALITY/ PRODUCTION WOULD BE DISCUSSED OR/AND DECISIONS MADE TO AFFECT SAME (MANPS).

10.9.1 Description of Current Operations

Decisions are sometimes made that affect the production effort or the quality of a repair unit without the Supervisor being told or asked to participate in the decision making process.

10.9.2 Description of Current Process Problems

10.9.3 Description of New Process

Better solutions to MANPS problems may be realized so that when a task force is formed, it is formed from individuals most knowledgeable and intimately concerned with a solution to the problem, such as the Production Supervisor if the problem involves the production effort; or the Tooling expert if the problem involves a tool change; and the Planner if ANY change is contemplated in the work sequence or planning. The task force should always be headed up by the Production Supervisor if the problem involves production or quality.

10.9.4 Rationale Leading to Change

10.9.5 Estimated Cost Savings

- . Better utilization of the Supervisors.
- . Better quality.
- . More Supervisor awareness.
- . More cooperation from all concerned.

10.9.6 Implementation Cost/Schedule

P.E. 10.12 QUICK FIX OPPORTUNITY TO EVALUATE CLEANLINESS CONDITION  
IN WORK/STAGING AREA NEAR THE AUTOCLAVES IN BUILDING  
169 (MANPSA).

10.12.1 Description of Current Operations

Most lay-up is done in the Lay-Up Room in Building 169 which is a controlled and compatible environment for the use of adhesives and bonding materials used in the manufacturing of MANPSA work.

Some small patches and repair work is done in the teardown areas and in the staging area of the autoclave. There is not as much concern or attention given to bonding conditions and cleanliness in this as there should be.

10.12.2 Description of Current Process Problems

10.12.3 Description of New Process

A study should be conducted to determine if the conditions are adverse and if a plastic curtain dropped from the ceiling would help the situation. The sanding, drilling and working of metals/composites should be moved further away from the area where adhesive bonding is being done.

10.12.4 Rationale Leading to Change

10.12.5 Estimated Cost Savings

The major benefit to isolating the bonding from the fabrication will be to create a somewhat controlled environment which a requirement to the use of structural adhesives.

10.12.6 Implementation Cost/Schedule

10.13

QUICK FIX OPPORTUNITY TO REVIEW SAFETY PRECAUTIONS IN THE USE OF METHYL-ETHYL-KETONE (MEK), DEPLETED URANIUM COUNTER-BALANCE WEIGHTS AND ASBESTOS CLAMPS USED IN BUILDING 603 ON THE C-141 WING LEADING EDGE (MANPS).

#### 10.13.1 Description of Current Operations

Two safety situations are prevalent in the aileron repair and adjacent areas concerning: (1) The use of Methyl-Ethyl-Ketone, which should not be used. "Safety Solvents" are available and are not as toxic and just as effective as MEK; and (2) Inadequate marking and warning to the mechanics and handlers of the Depleted Uranium counterbalance weight used as the balance material for the weight.

The planners have addressed the problem of the depleted uranium with a vinyl cover but it is not used effectively.

#### 10.13.2 Description of Current Process Problems

#### 10.13.3 Description of New Process

The applicable T.O. lists all the precautions that must be taken to prevent undue exposure to the radioactivity of the material and the mechanics are aware of this. There is no awareness of the "heavy-metal" effects of ingesting ground depleted uranium powder or the fact that grinding or drilling causes sparking which would cause ignition. The Base Safety Engineer should address this problem.

#### 10.13.4 Rationale Leading to Change

#### 10.13.5 Estimated Cost Savings

Employee safety.

#### 10.13.6 Implementation Cost/Schedule

P. 9  
10.14 QUICK FIX OPPORTUNITY TO IMPLEMENT METHODOLOGY TO  
ELIMINATE MISSING PETAL DOOR STRAKE PARTS (MANPSA).

10.14.1 Description of Current Operations

The Petal Doors arrive at WR-ALC to be inspected and repaired consistently missing the Strake which should accompany the door. This is an expensive group of parts! This is an expensive operation for every C-141 Petal Door to come in for repairs a NEW Strake has to be manufactured and shipped back out to stores!

Where are the missing strake parts? Who removes them from the Petal Door Assembly? By what authority are they removed? Records show that some of these parts have a value of \$20 to \$30 each and in many cases as many as twenty (20) parts are missing!

10.14.2 Description of Current Process Problems

10.14.3 Description of New Process

An investigation into this matter has been made and an employee was given a cash award for bringing this matter to the attention of his managers but no resolution to the problem has been effected as of this date.

10.14.4 Rationale Leading to Change

10.14.5 Estimated Cost Savings

(See Attachments.)

10.14.6 Implementation Cost/Schedule

10.16

10.16

QUICK FIX OPPORTUNITY TO USE LOCKHEAD "STATUS" TO DETERMINE LATEST DRAWING/EFFECTIVITY (MANPS).

#### 10.16.1 Description of Current Operations

There seems to be a bit of confusion at WR-ALC as to how to determine the effectivity of a part or of a drawing revision. This is especially pertinent to the drawings and parts for the Lockheed C-130 and C-141 aircraft. When the Air Force bought these airplanes from Lockheed, they also bought the drawings and the drawing submittal system, which would be in accordance with the applicable MIL Specification for the drawing requirements.

#### 10.16.2 Description of Current Process Problems

#### 10.16.3 Description of New Process

It is possible that a phone call to "Status" at Lockheed each time could get an answer to a problem involving a part as to whether it is required on a particular Model or not.

"Status" could also be used to verify the latest drawing revision or Engineering Order (EO) change to a drawing.

#### 10.16.4 Rationale Leading to Change

#### 10.16.5 Estimated Cost Savings

- . Time saved.
- . Money saved.
- . More confidence in working with Lockheed drawings.

#### 10.16.6 Implementation Cost/Schedule

P.T. 02.  
~~10.18~~ QUICK FIX OPPORTUNITY TO NEED "WINDOW AREA" PLOT FOR F-15 RADOME REPAIR USE (MANPSD).

**10.18.1 Description of Current Operations**

There are approximately 150 F-15 Radomes in an "X" condition (a condition of maximum damage) which will require a maximum effort to repair in the near future for MANPSD. (Building 670).

**10.18.2 Description of Current Process Problems**

The F-15 repair T.O.'s do not give a "stay-out" or "window" area for the Radome to help guide the repair. Other T.O.'s such as for the C-130 Radomes give this information to establish repair limitations and help guide the mechanic making the repair.

**10.18.3 Description of New Process**

There is a need to establish the repair limitations for the F-15 Radomes. Hugh Darsey, (6)5374, MMFRB, Cognizent Engineer is working with the test range, (Building 675), people to derive information to define the repair limitations.

**10.18.4 Rationale Leading to Change**

In the event the repair limits are not defined it is probable that Radomes will be repaired and not be usable thereby wasting time, money, and effort.

**10.18.5 Estimated Cost Savings**

Cost savings not determinable, at this time.

**10.18.6 Implementation Cost/Schedule**

Not determinable at this time.

1000  
Comment

10.20

10.3  
013

QUICK FIX OPPORTUNITY TO MOVE F-15 CANOPY REPAIR EFFORT  
OUT OF BUILDING 670 (MANPSD).

10.20.1 Description of Current Operations

The F-15 Canopy repair effort occupies only a small portion of Building 670 and the repair effort does not have sufficient space.

10.20.2 Description of Current Process Problems

10.20.3 Description of New Process

Additional space is currently needed and by moving the canopy effort out of the building more space will be available for the radomes.

The F-15 Canopy should be moved to an area closer to the sheet metal repair, Building 169.

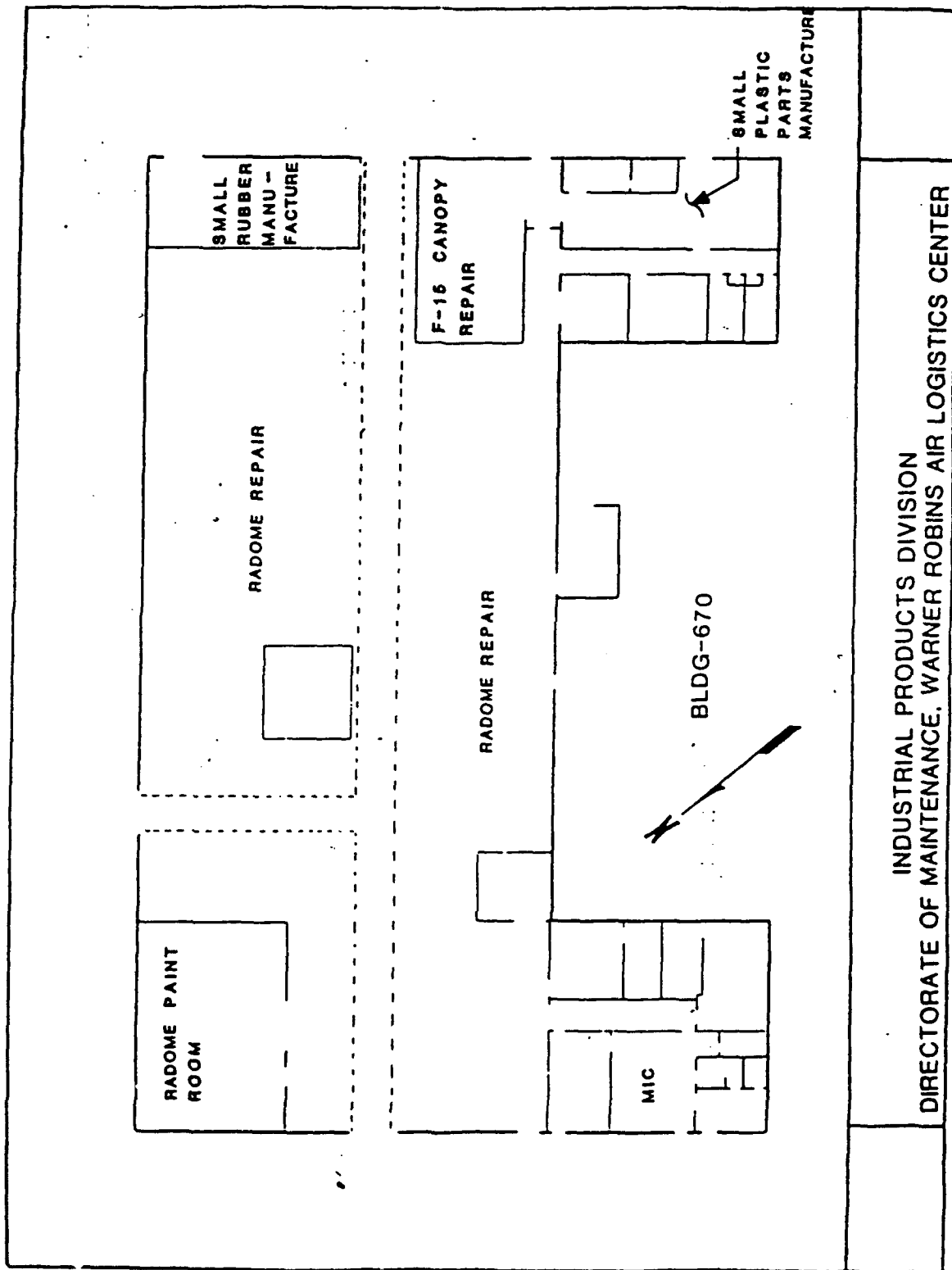
There is no GRID BOARD available to check the optical qualities of the transparencies when scratches are buffed out and the surface distorted.

10.20.4 Rationale Leading to Change

10.20.5 Estimated Cost Savings

Time will be saved and/or work efficiency will be increased and consequently the production rate increased. (See attached sketch.)

10.20.6 Implementation Cost/Schedule



INDUSTRIAL PRODUCTS DIVISION  
DIRECTORATE OF MAINTENANCE, WARNER ROBINS AIR LOGISTICS CENTER



4002  
Layout  
03/07/1991  
10.K

10.22

QUICK FIX OPPORTUNITY TO REMOVE C-130 LEADING EDGE  
(UNUSED) JIGS FROM BUILDING 603 (MANPSD).

10.22.1 Description of Current Operations

There are several unused C-130 Leading Edge jigs stored in Building 603 that are occupying much needed space needed for 4 - 6 additional nozzle stations.

10.22.2 Description of Current Process Problems

10.22.3 Description of New Process

Remove these jigs from the building thereby allowing the C-141 Nozzle effort to be expanded, as planned.

10.22.4 Rationale Leading to Change

10.22.5 Estimated Cost Savings

Space is at a premium in Building 603 and this space will be used to increase production rate for the C-141 Nozzle effort.

10.22.6 Implementation Cost/Schedule

10.23

QUICK FIX OPPORTUNITY TO NEED BETTER/LARGER/CLEANER  
TOILET FACILITY FOR THE WOMEN MECHANICS IN BUILDING  
603 (HANPSD).

10.23.1 Description of Current Operations

The women's toilet in Building 603 has only one (1) commode for 6-8 women to use. Water stands in the general area of the toilet when it rains. The women have to go to adjacent buildings or either wait!

10.23.2 Description of Current Process Problems

10.23.3 Description of New Process

Provide better toilet facilities.

10.23.4 Rationale Leading to Change

10.23.5 Estimated Cost Savings

Increased worker comfort station and sanitary conditions.

10.23.6 Implementation Cost/Schedule

~~10.23~~

### 10.25.1 Description of Current Operations

### 10.25.2 Description of Current Process Problems

### 10.25.3 Description of New Process

#### 10.25.4 Rationale Leading to Change

#### 10.25.5 Estimated Cost Savings

#### 10.25.6 Implementation Cost/Schedule

1000 1070  
PAUL C. BEVAN'S COPY

NOTE\*\*\* THIS IS A CONFIRMATORY SUGGESTION.

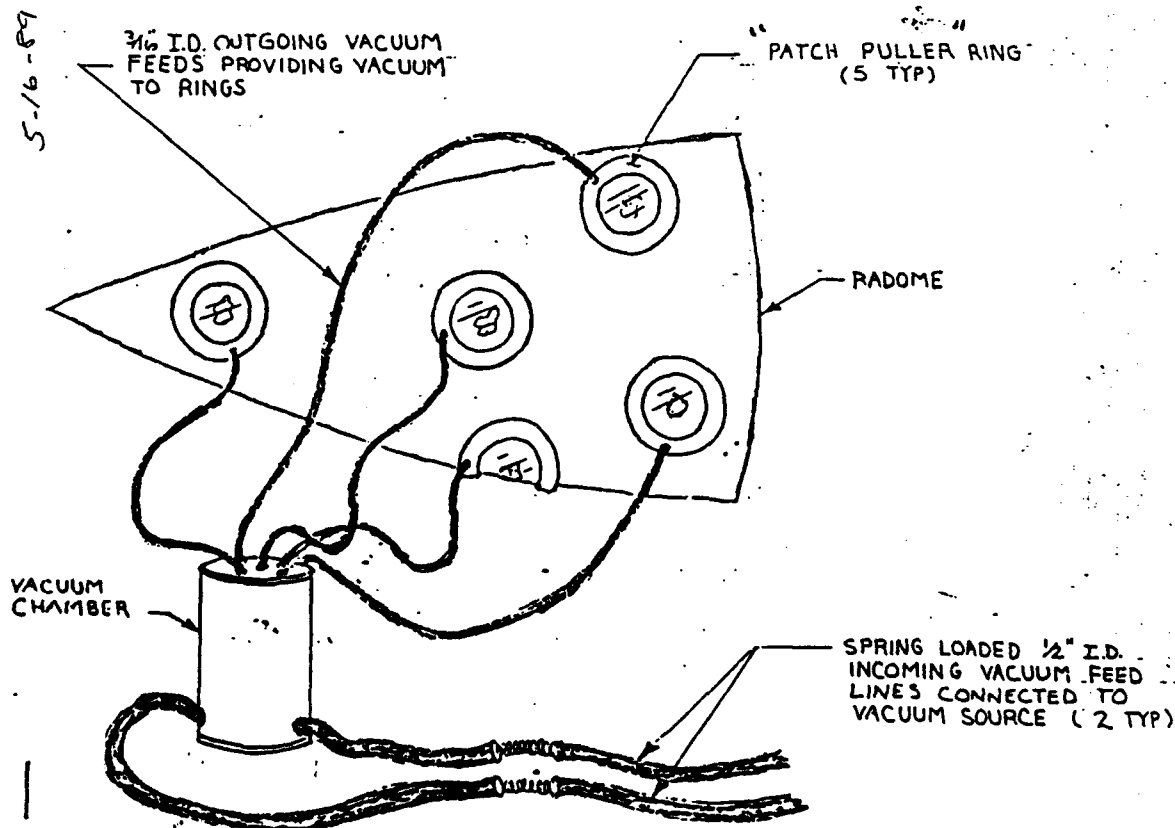
On 11-17-88, I discussed and demonstrated this concept in the presence of Jac Hambrick, David Turner, and Hugh Darsey. They were responding to an AFLC For 103 submitted by myself on 11-15-88. The 103 number is MANERS-8-558. I have attached a copy.

Problem: Present vacuum bag patching techniques are costly, both in labor and material. The government can reduce these costs.

Solution: I have prototyped and developed two systems that greatly reduce material costs and labor costs on the repair of fiberglass items. One system was designed and developed to be used on the F-15 radome. It will work on an aircraft that has a radome of the same configuration as the F-15 radome. After implementation of the system, 98% of labor cost and 95% of material costs will be saved in the patch set-up procedure. Approximately seven labor hours per F-15 radome will be saved. This system is also effective in spot patching on all types of fiberglass and on many fiberglass items DoD-wide. Some examples are the C-130 radome, C-141 radome, C-141 tail cone, C-130 hat dome, and C-141 hat dome.

Some benefits of the F-15 patch puller follow:

PAGE 1 OF 3 PAGES



1. Eliminates 98% of material used for patch set-up (tapes, spring, tacky tape).
2. Eliminates 95% of patch set-up material handling, application, and removal.
3. Eliminates any possibility of pulling up circs by eliminating adhesive tapes presently used.
4. Functions effectively over grid wires, copper foil tape, radar balancing tape, and oil- or fluid-contaminated surfaces where adhesive tapes now used encounter problems.
5. Works effectively on interior and exterior surfaces.
6. I have prototyped and developed the part and mold; no additional tooling needed.
7. Would be effective for field use in the form of an inexpensive kit. The kit would consist of cloth, resin, Mylar film, and patch puller ring. The system could be operated by a portable vacuum pump.
8. The system could be used throughout the Air Force on any aircraft having radome with a similar configuration.
9. The system could be used DoD-wide (Navy, Army, ANG, etc).
10. The system is effective in spot patching.
11. All components of the system are durable and reusable.

The second system I have developed operates off the same vacuum concept. I have developed a 2-inch-wide band of urethane that vacuums to the radome surface. The system incorporates the vacuum band, a dual vacuum feed, 1-inch masking tape, zinc chromate, and spring. One vacuum source will have a trap built into the line to allow for bleed-outs. Set up and operation is as follows:

1. Vacuum band down to face of radome operating off a straight line vacuum source (no trap). The band will surround the repair area.

2. Once in place, apply the zinc chromate to the outside face of the band.

NOTE: After the chromate has been applied to the vacuum band on the band's first use, the chromate will stay in place and require very little handling of the next several patches. Periodic reapplication of the chromate may be required to insure effectiveness of the device. The zinc chromate serves as an adhesive for alcohol sheet or Mylar film.

3. Next apply the spring with 2-inch pieces of 1-inch-wide masking tape just outside the repair area and within the vacuum band.

4. Attach the vacuum feed with the trap to this spring. This will allow for excess air resin to be bled from the patch. The system will now be ready for use.

5. Apply patch material to repair area (per TO 1-1-24).

6. Activate bleed-out vacuum and stretch Mylar sheet over the repair, adhering the sheet to the chromate. The patch is complete.

This method will reduce tape use by 90%. Labor required for patch set up and break down will be reduced by 70%. This will equate to an average of 6 labor hours saved per dome on the C-130 and C-141. I am in the process of making different sizes and shapes to accommodate different size and shape repairs. 1-1-24, pg 4-19, para 4-86 suggests that mechanics keep their repairs between 144 sq in and 324 sq in for best results. This is not always practical. I have developed a vacuum band that will allow patches of 500 sq in to be pulled. Based on the prototypes and the success of the system, pulling patches with areas of 1000 square inches and greater is realistic. The pullers are already applicable to 90% of the interior and exterior of the C-130 and C-141 radomes.

Some benefits of the vacuumized band follow:

1. Eliminates 70% of material handling in patch set-up on C-130 and C-141 radomes (approximately 6 hours per radome will be saved).
2. Eliminates 90% of tape used during patch set-up.
3. Functions effectively over contaminated surfaces where tape may lose its adhesion.
4. Works effectively on interior and exterior surfaces.
5. Would be applicable DoD-wide.
6. The vacuumized band is reusable and very durable.
7. Can be applied to numerous fiberglass items.

10.26

QUICK FIX OPPORTUNITY TO ENCOURAGE SUGGESTIONS LIKE WENDELL PITTMAN'S INVESTIGATION AND PERSISTENCE IN HIS INVESTIGATION OF MISSING PETAL DOOR STRAKE PARTS. CONTINUE INVESTIGATION TO ELIMINATE MISSING PETAL DOOR STRAKE PARTS (MANPSA).

#### 10.26.1 Description of Current Operations

The Petal Doors arrive at WR-ALC to be inspected and repaired consistently missing the strake which should accompany the door. This is an expensive group of parts! This is an expensive operation for every C-141 Petal Door to come in for repairs a NEW strake has to be manufactured and shipped back out to stores!

Where are the missing strake parts? Who removes them from the Petal Door Assembly? By what authority are they removed? Records show that some of these parts have a value of \$20 to \$30 each and in many cases as many as twenty (20) parts are missing!

#### 10.26.2 Description of Current Process Problems

#### 10.26.3 Description of New Process

An investigation into this matter has been made and an employee was given a cash award for bringing this matter to the attention of his managers but no resolution to the problem has been effected as of this date. (See Attachment.)

#### 10.26.4 Rationale Leading to Change

#### 10.26.5 Estimated Cost Savings

(See Attachment.)

#### 10.26.6 Implementation Cost/Schedule

THIS IS A COPY FROM THE "ORIGINAL"

TO: ALC/DPF/Donna Layfield  
FROM: Wendell T. Pittman (926-4812)  
DATE:  
REF.: Reopen and Reevaluate Suggestion #863055

Ms. Layfield:

I would like to have this suggestion re-opened and re-evaluated.

I have been trying to get someone to realize that the Government could have been saving money since 1984. Nothing has seemed to have any effect.

The latter part of 1987 I contacted the Fraud Waste and Abuse Division and they checked into the matter. After an inquiry and finding that on a lot that Petal Doors coming to Depot Maintenance are stored on over half the doors. Out of 22 doors, 12 were minus strakes. If I remember right they had the suggestion re-submitted and it was further implemented by on through the General.

Some time around the first of the year I was instructed that a \$250.00 settlement could be made on the suggestion or a \$100.00 award would be paid and the suggestion would be further evaluated. After a period of time I was told that the implementation process had been completed and that the personnel in the field could not or would not comply with the directives so therefore my suggestion warranted no further compensation.

On the 11th of December, 1980, the doors were numbered and logged coming into the shop. From then until 17 August 1984 some of the doors were marked with or without strakes. I wasn't there all this period of time so I can't verify that everything was logged. But I can authenticate the validity of these facts. From Door #819 thru Door #1131 there were 96 doors sent to Depot Maintenance minus strake assemblies. At approximately 3,000.00 per strake this was a loss of 288 thousand dollars. From 17 August 1984 through January 1, 1988 I have no accurate count as to missing strakes except for the fact that out of even 20 doors 12 were missing strakes. Since my suggestion was implemented, there has been a drastic change from January 1988. July 15, 1988 the Petal Door shop has been delivering 34 doors for repair.



Page Two

Out of these 34 doors only 3 have been minus strake. So as you can see this has been a tremendous reduction in lost strakes since my suggestion was put in force. Since 1981 my guess would be that over one half million dollars have been lost due careless and unattention. From 12 out of 20 doors missing strakes in the latter part of 1987 to 3 out of 34 door missing strakes should warrant a monetary re-evaluation. If you would please look into this matter for me.

Thanking you in advance,

Wendell T. Pittman  
MANPSA/WR-ALC WRAFB/926-4812

cc: Shirley L. Wade, Manager  
Air Force Management  
Engineering Agency  
Randolph AFB, Texas

Honorable Sam Nunn  
U. S. Senate  
Washington, D.C.

51454A

Left Hand Strake Assembly

|                 |         |     |          |
|-----------------|---------|-----|----------|
| 1560009466505   | 3F40353 | 279 | \$132.49 |
| 1560009466503   | "       | 281 | 78.92    |
| 1560009466501   | "       | 283 | 148.21   |
| 1560004656499   | "       | 285 | 204.99   |
| 1560004653971JH | "       | 141 | 34.51    |
| 1560001823974JH | "       | 143 | 24.07    |
| 1560004605362JH | "       | 145 | 37.07    |
| 1560004653418JH | "       | 147 | 46.16    |
| 1560004653969JH | "       | 243 | 23.71    |
| 1560004600716JH | "       | 149 | 91.00    |
| 1560004603420JH | "       | 151 | 98.68    |
| 1560004660743JH | "       | 153 | 90.10    |
| 1560004653977JH | "       | 269 | 49.18    |
| 1560004907654JH | "       | 199 | 92.53    |
| 1560004907656JH | "       | 201 | 92.61    |
| 1560004907657JH | "       | 203 | 49.75    |
| 1560004907667JH | "       | 257 | 60.77    |
| 1560004907670JH | "       | 271 | 17.63    |

51455A

## Right Hand Strake Assembly

|                 |         |     |          |
|-----------------|---------|-----|----------|
| 1560009466504   | 3F40353 | 280 | \$ 94.36 |
| 1560009466502   | "       | 282 | 109.15   |
| 1560009466500   | "       | 284 | 86.70    |
| 1560009466508   | "       | 286 | 189.30   |
| 1560001825369JH | "       | 146 | 59.13    |
| 1560004653973JH | "       | 142 | 35.11    |
| 1560002243239JH | "       | 148 | 51.91    |
| 1560004653975JH | "       | 144 | 29.81    |
| 1560004653968JH | "       | 244 | 25.68    |
| 1560P0775322065 | "       | 258 | 57.78    |
| 1560004603419JH | "       | 150 | 77.39    |
| 1560P0949672065 | "       | 152 | 175.93   |
| 1560004603421JH | "       | 154 | 78.92    |
| 1560004653981JH | "       | 270 | 32.69    |
| 1560004657655JH | "       | 200 | 25.77    |
| 1560004907658JH | "       | 204 | 46.40    |
| 1560004907669JH | "       | 258 | 57.36    |
| 1560004907671JH | "       | 272 | 82.09    |
| 1560P077532F    | 3F40352 | 228 | 83.62    |

10:00  
10.27

QUICK FIX OPPORTUNITY TO MAKE USE OF AND ASSIGN MORE  
MANUFACTURING RESPONSIBILITY TO THE PLANNING SECTION  
FOR ALL MANUFACTURING/ENGINEERING COORDINATION  
(MANPS).

#### 10.27.1 Description of Current Operations

When the manufacturing people (mechanics) have problems pertaining to the engineering and other data requirements for a particular unit being repaired they most often contact the technical support people, such as the manufacturing, tooling, facilities, or materials engineer in a DIRECT contact manner.

Usually the mechanics are not as well-versed as the planner as to the overall part requirement and design intent and consequently should take the problem through the planner for him to make the contact.

#### 10.27.2 Description of Current Process Problems

#### 10.27.3 Description of New Process

Make better use of the Planning Section to help solve ALL problems involving the technical implementation of the Work Control Document (WCD).

#### 10.27.4 Rationale Leading to Change

#### 10.27.5 Estimated Cost Savings

When the planner is contacted he will be in a better position to:

- . Assist the mechanic to prevent work stoppages.
- . Revise the WCD, when required.
- . Coordinate the production effort.
- . Influence the standard hour requirement.
- . Help solve tooling problems and requirements.
- . Etc.

#### 10.27.6 Implementation Cost/Schedule

10.29

QUICK FIX OPPORTUNITY TO STUDY TO OBTAIN BETTER QUALITY/DELIVERY FOR THE PETAL DOOR INNER/OUTER SKIN ASSEMBLIES FROM THE NEW SUBCONTRACTOR (MANPSA).

#### 10.29.1 Description of Current Operations

The new inner skin and outer skin bonded assemblies for the Petal Door, which are made off-site at a Sub-Contractor, require inspection and repair work on the new assemblies before they are acceptable to be used. These new skins are sometime dented, scratched, have voids, have delaminations, etc. that require time and effort to fix before they can be used as acceptable parts. Also, the potted location for the attachment fasteners require re-potting in the honeycomb skin area due to not falling within the potted area. A cursory investigation shows that an increase in the potting area diameter from about one-half inch to about one inch could possibly eliminate the problem of re-potting. Most of the damage problems aforementioned are the fault of WR-ALC but the voids, delaminations, or core damage are most likely the fault of the Sub-Contractor.

#### 10.29.2 Description of Current Process Problems

#### 10.29.3 Description of New Process

Redesign the Petal Door Assembly jig to allow a greater amount of work to be performed in the jig without having to remove the parts so often. At the present time the skin assemblies and the frame parts require removal and replacement approximately six (6) times for each door. This could be reduced by adding a "Box-Jig" adaptation that would allow the skins to be folded back out of the way rather than removing the skins and the frame from the jig each time. More jigs are required for the current workload of Petal Doors.

#### 10.29.4 Rationale Leading to Change

#### 10.29.5 Estimated Cost Savings

An investigation team should be formed to ascertain how much time and money is being spent to rework these "New" Inner Skin and Outer Skin Assemblies and visit the new Subcontractor, if necessary.

A cursory investigation has also discovered that these skin assemblies frequently are not made to the correct contour! After reviewing the bonding capabilities and the autoclave facilities MDMSC has concluded that both of these skin assemblies should be made at WR-ALC!

#### 10.29.6 Implementation Cost/Schedule

10.30 <sup>10.30</sup> <sup>Q</sup> <sup>RB</sup> QUICK FIX OPPORTUNITY TO MAKE BETTER USE OF QUALITY PEOPLE TO HELP SOLVE PROBLEMS RELATED TO THE REPAIR EFFORTS (MANPS).

10.30.1 Description of Current Operations

The Supervisors and their Designees often do not call the Quality Assurance Specialist to help solve problems arising from the repair effort.

10.30.2 Description of Current Process Problems

10.30.3 Description of New Process

The Quality Assurance Specialist should be used by issuing a Request for Quality Assistance (RQA) (AFLC Form 354).

The Quality Assurance Specialist will use the skills and facilities available to develop valid solutions or recommendations on all RQAs. Examples include: Quality Engineering, Methods Improvement Laboratory, chemical or materials laboratories, and subject matter specialists from other divisions or directorates. All corrective actions will be thoroughly coordinated with all activities having a primary or collateral responsibility.

10.30.4 Rationale Leading to Change

10.30.5 Estimated Cost Savings

Time will be reduced and/or work efficiency will be increased and as a result the production rate increased. (See attached copy of MAOI 74-2.)

10.30.6 Implementation Cost/Schedule

23 June 1988

Quality and Reliability Assurance

REQUEST FOR QUALITY ASSISTANCE (RQA)

This MAOI outlines procedures for submitting a Request for Quality Assistance (RQA). This instruction applies to all employees and organizations in the Directorate of Maintenance (MA).

1. **GENERAL.** The purpose of the RQA program is to provide all employees with a medium to seek solutions for a known or suspected problem on any product, process, system, or procedure that may adversely impact the quality of products or services produced by this activity.

\*2. **REQUIREMENTS.** AFLC Form 354, Request for Quality Assistance (RQA), is a means of initiating requests to the Product Quality and Reliability Division (MAQ) when initial investigative actions have failed to remedy the problem. Anyone who recognizes or suspects a problem may initiate an RQA. The RQA will not be used for resolution of personal grievances, subjects covered by the Master Labor Agreement, matters under the jurisdiction of 40-series regulations, or items covered by other programs (component failures-use QDR, tech data errors-use AFTO Form 22, etc).

3. **PROCEDURES:**

a. Individuals requesting Quality Assistance will:

(1) Prepare AFLC Form 354 when a suspected or known deficiency is compromising the quality of a product produced by MA.

\*(2) Complete all blanks of Part I of AFLC Form 354 and forward to the applicable Quality Branch (MAQ). Routing through section and/or branch office is at the option of the applicable division. The form may be handscripted.

(3) State the deficient condition in sufficient detail to aid investigation; that is, include attachments, national stock numbers (NSNs), technical orders (TOs), etc.

(4) Assist Quality Assurance Specialist during problem review.

b. Applicable Quality Branch (MAQ) will:

(1) Maintain an RQA log book reflecting the RQA control number, date request received, subject, initiator's name, office symbol, suspense date, and date project closed.

(a) The control number will be comprised of the Quality Branch symbol, the last two digits of the year, and the numerical sequence of the project (for example, MAQB-86-1).

(b) A suspense date of not more than 25 workdays will be established.

(2) Contact the originator of the RQA to obtain additional information as required.

(3) Perform a comprehensive evaluation concerning the problem identified through the RQA.

Supersedes MAOI 74-2, 18 Apr 86.

OPR: MAQSS (Sue Pierce)

Editor: Wanda B. Wood

Distribution: F,

X: AUDGN, MMIMF-Q, 2953 ABG/DAP.....1 ea

23 June 1988

(4) Coordinate all findings/recommendations with responsible supervisors.

(5) Provide the initiator a thorough report, with recommendations, if applicable, within established suspense date. Also, provide copies to other organizations with an interest in or collateral responsibility for the problem or for actions associated with the solutions or recommendations. If evaluation cannot be completed within required suspense date, provide initiator with an interim status report.

(6) Initiate requests to effect changes to technical orders, regulations, or other directives when needed.

(7) Provide all recipients of the initial report with copies of all follow-on correspondence.

(8) Maintain a file on completed RQA actions in accordance with MAQOI 74-1.

c. The Quality Assurance Specialist will use the skills and facilities available to develop valid solutions or recommendations on all RQAs. Examples include: Quality Engineering, Methods Improvement Laboratory, chemical or materials laboratories, and subject matter specialists from other divisions or directorates. All corrective actions will be thoroughly coordinated with all activities having a primary or collateral responsibility.

d. Applicable personnel shall assist the Quality Assurance Specialist during evaluation process and assure corrective actions are taken when a problem is identified to their particular area.

FOR THE DIRECTOR

*Walter R. Peacock, Jr.*  
WALTER R. PEACOCK, Jr., Col. USAF  
Chief, Resources Management Division  
Directorate of Maintenance

1 Attachment  
AFLC Form 354 (Sample)



23 June 1982

3

| REQUEST FOR QUALITY ASSISTANCE (RQA)                                                                                                                                                                                                                                        |                                                             |                             |                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------|------------------------|
| TO<br>MAQ <u>N</u>                                                                                                                                                                                                                                                          | FROM (Name, Organization, Extension)<br>Jane Doe/MANPM/3491 |                             | DATE<br>4 Apr 86       |
| SUBJECT<br>(System/Item/Process)                                                                                                                                                                                                                                            |                                                             |                             |                        |
| PROBLEM/CONDITION/RECOMMENDATION (If needed, continue on reverse. Do not write below this block.)<br><br>(Define problem in sufficient detail, state previous actions taken to resolve problem, attach all pertinent information - drawings, previous correspondence, etc.) |                                                             |                             |                        |
| SIGNATURE<br>(Signature of Initiator)                                                                                                                                                                                                                                       |                                                             |                             |                        |
| REPORT                                                                                                                                                                                                                                                                      |                                                             |                             |                        |
| TO<br>MANPM                                                                                                                                                                                                                                                                 | FROM<br>MAQ <u>NM</u>                                       | CONTROL NUMBER<br>MAQN-86-3 | DATE<br>14 Apr 86      |
| BENEFITS DERIVED/EXPECTED (if applicable)<br><br>(Provide findings, recommendations, action taken, and benefits derived.)                                                                                                                                                   |                                                             |                             |                        |
| CORRECTIVE ACTION ON THIS REPORT IS<br><input checked="" type="checkbox"/> COMPLETE <input type="checkbox"/> PENDING <input type="checkbox"/> NOT REQUIRED                                                                                                                  |                                                             |                             | MAQ MANHOURS<br>14 hrs |
| SIGNATURE<br>(Section Level)                                                                                                                                                                                                                                                |                                                             | ORGANIZATION<br>MAQNM       | EXTENSION<br>2441      |

AFLC FORM 354  
JAN 86

PREVIOUS EDITION WILL BE USED

SAMPLE - NOT TO BE REPRODUCED.

## OVERALL STATUS OR CONCERNS

BILL RICH 5-24-89

- WARNER-ROBINS ALC IS A NICE PLACE TO WORK, GOOD PLACES TO EAT AND THE WEATHER IS VERY GOOD.
- WR-ALC IS CONVENIENT TO OUR MOTEL AND TO SHOPPING.
- MOST EMPLOYEES ARE VERY COOPERATIVE WITH THE T. I. EFFORT.
- THE WR-ALC PEOPLE WERE NOT ADEQUATELY EDUCATED AND PREPARED FOR OUR VISIT.
- COOPERATION WITH THE PLANNERS, QUALITY AND SCHEDULERS HAS BEEN EXCELLENT. THE SCHEDULERS ASSISTED US WITH OUR "FLOW-CHART" EFFORT.
- OUR PORTION OF THE T. I. SITE EFFORT WAS WELL ORGANIZED AND EFFECIENT.
- ALL RCC "PROCESS CHARACTERIZATION" DATA COLLECTION WENT EXTREMELY WELL.
- WE HAD GOOD ACCESS TO HISTORICAL RECORDS, QP4 RECORDS, ETC.
- WE ATTENDED SEVERAL QP4 MEETINGS AS OBSERVERS.

- ST. LOUIS SENT US A LOT OF FORMS THAT WE HAD NO REAL USE FOR!
- WR-ALC REPAIR WORK UNITS ARE PROBABLY MORE DIFFICULT TO REPAIR THAN THE AVERAGE.
- INTERCHANGE OF INFORMATION WITH OUR WR-ALC COUNTERPARTS NOT TOO GOOD ON OCCASION.
- ALL PREVIOUS (1988) COLLECTED DATA SUCH AS "BACK-SHOP" FLOW TIME, PROCESS FLOW TIME, ETC. WAS REVIEWED IN DETAIL AND CORRECTED WHERE NECESSARY.
- WE RECOVERED FROM A "TWO-WEEK-BEHIND SCHEDULE" TO AN APPROXIMATELY "ON-TIME-SCHEDULE."
- WE ORIGINATED APPROXIMATELY 50 "QUICK-FIX" ITEMS.
- OUR DATA VALIDATION PROCESS WENT EXTREMELY WELL.

BILL RICH  
5-24-89

6:56 FRIDAY, FEBRUARY 24, 1989 21

## PART OPERATION SUMMARY

PN: 3F40455-105  
ALC: WARNER ROBBINS RCC: MANPSA SHEETMETAL, ADHESIVE BONDING  
NSN: PCN: 51454A WCD: MB030B WCD DATE: 88064  
PRIMARY OPERATION TYPE: INS MATERIAL TYPE: AL  
MISSING FLOWTIMES: 0 END ITEMS: 0 OUTLIERS DELETED: 0  
OPERATION: ZPRT  
SAMPLE SIZE: 19

| ----- MANPOWER REQUIRED ----- |     |          |       | ----- EQUIPMENT REQUIRED ----- |          |     |          |
|-------------------------------|-----|----------|-------|--------------------------------|----------|-----|----------|
| SKILL                         | QTY | FRACTION | HOURS | CODE                           | CATEGORY | QTY | FRACTION |
|                               |     |          | TIME  |                                |          |     | TIME     |
|                               |     |          | ---   |                                |          |     | ---      |
|                               |     |          | BATCH |                                |          |     | BATCH    |
|                               |     |          | MIN   |                                |          |     | MAX      |

## HISTORICAL DATA

| ACTUAL<br>FREQ | 0     | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | DISTRIBUTION                    | PARAMETERS     | D VALUE | D ALPHA |
|----------------|-------|----|----|----|----|----|----|----|----|----|-----|---------------------------------|----------------|---------|---------|
| 0              |       |    |    |    |    |    |    |    |    |    |     | UNIFORM                         | 29.0 78.0      | 0.212   | 1.00    |
| 10             |       |    |    |    |    |    |    |    |    |    |     | TRIANGULAR                      | 29.0 63.0 78.0 | 0.131   | 1.00    |
| 20             | **    |    |    |    |    |    |    |    |    |    |     | NORMAL                          | 59.1 14.3      | 0.091   | 1.00    |
| 30             | **    |    |    |    |    |    |    |    |    |    |     | LOGNORMAL                       |                | 1.000   |         |
| 40             | **    |    |    |    |    |    |    |    |    |    |     | EXPONENTIAL                     | 61.9           | 0.344   | 0.02    |
| 50             | ***** |    |    |    |    |    |    |    |    |    |     |                                 |                |         |         |
| 60             | ***** |    |    |    |    |    |    |    |    |    |     |                                 |                |         |         |
| 70             | ***** |    |    |    |    |    |    |    |    |    |     |                                 |                |         |         |
| 80             | ***** |    |    |    |    |    |    |    |    |    |     |                                 |                |         |         |
| 90             | ***** |    |    |    |    |    |    |    |    |    |     |                                 |                |         |         |
| 100            | ***** |    |    |    |    |    |    |    |    |    |     |                                 |                |         |         |
|                |       |    |    |    |    |    |    |    |    |    |     | OCCURRENCE FACTOR :             | OCCURRENCES :  | 19      |         |
|                |       |    |    |    |    |    |    |    |    |    |     | DISTRIBUTION OF CHOICE : NORMAL |                |         |         |

**OCCURRENCE FACTOR: . OCCURRENCES: 19**

DISTRIBUTION OF CHOICE: NORMAL

SAS

6:56 FRIDAY, FEBRUARY 24, 1989 11

# PART OPERATION SUMMARY

ALC: WARNER ROBBINS RCC: MANPOC

PN: 3F40455-105

NSN:

PCN: 51454A

WCD: MBC30B WCD DATE: 88064

OPERATION: ZPRT

MISSING FLOWTIMES:

BACKSHOP OPERATION TYPE:

MATERIAL TYPE:

WCD: MBC30B WCD DATE: 88064

SAMPLE SIZE:

END ITEMS:

OUTLIERS DELETED:

MATERIAL TYPE:

WCD: MBC30B WCD DATE: 88064

----- MANPOWER REQUIRED -----

----- EQUIPMENT REQUIRED -----

WCD: MBC30B WCD DATE: 88064

SKILL QTY FRACTION HOURS

CODE CATEGORY QTY FRACTION HOURS

WCD: MBC30B WCD DATE: 88064

## HISTORICAL DATA

ACTUAL FREQ 0 10 20 30 40 50 60 70 80 90 100

DISTRIBUTION

PARAMETERS

D VALUE ALPHA

UNIFORM  
TRIANGULAR  
NORMAL  
LOGNORMAL  
EXPONENTIAL

OCCURRENCE FACTOR: . OCCURRENCES:

DISTRIBUTION OF CHOICE:

>= 0

SAS

# PART OPERATION SUMMARY

6:56 FRIDAY, FEBRUARY 24, 1989 12

PN: 3F40406-101  
 OPERATION: ZPRT  
 SAMPLE SIZE: 10  
 ALC: WARNER ROBBINS  
 RCC: MANPSA  
 SHEETMETAL, ADHESIVE BONDING  
 NSN:  
 PCN: 51454A  
 WCD: MBD30B  
 WCD DATE: 88064  
 PRIMARY  
 OPERATION TYPE: PROC MATERIAL TYPE: AL  
 MISSING FLOWTIMES: 0  
 END ITEMS:  
 OUTLIERS DELETED: 0

----- MANPOWER REQUIRED -----  
 SKILL QTY FRACTION TIME FRACTION HOURS BATCH  
 MIN MAX

## HISTORICAL DATA

| ACTUAL<br>FREQ | 0     | 10   | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | DISTRIBUTION | PARAMETERS | D<br>VALUE | D<br>ALPHA |
|----------------|-------|------|----|----|----|----|----|----|----|----|-----|--------------|------------|------------|------------|
| 0              | ***** |      |    |    |    |    |    |    |    |    |     | UNIFORM      | 0.0        | 58.0       | 0.632      |
| 5              |       | **** |    |    |    |    |    |    |    |    |     | TRIANGULAR   | 0.0        | 58.0       | 0.569      |
| 10             |       |      |    |    |    |    |    |    |    |    |     | NORMAL       | 10.6       | 19.6       | 0.341      |
| 15             |       |      |    |    |    |    |    |    |    |    |     | LOGNORMAL    | 10.6       | 19.6       | 0.057      |
| 20             |       |      |    |    |    |    |    |    |    |    |     | EXPONENTIAL  | 11.4       |            | 0.440      |
| 25             |       |      |    |    |    |    |    |    |    |    |     |              |            |            | 0.15       |
| 30             |       |      |    |    |    |    |    |    |    |    |     |              |            |            | 1.00       |
| 35             |       |      |    |    |    |    |    |    |    |    |     |              |            |            | 0.04       |
| 40             |       |      |    |    |    |    |    |    |    |    |     |              |            |            |            |
| 45             |       |      |    |    |    |    |    |    |    |    |     |              |            |            |            |
| 50             |       |      |    |    |    |    |    |    |    |    |     |              |            |            |            |

OCCURRENCE FACTOR: . OCCURRENCES: 10  
 DISTRIBUTION OF CHOICE: LOGNORMAL

## FACTORS

OPERATION: ZPRT  
SAMPLE SIZE: .  
MISSING FLOWTIMES: .  
BACKSHOP OPERATION TYPE: MATERIAL TYPE:  
END ITEMS: . OUTLIERS DELETED: .

## HISTORICAL DATA

| ACTUAL<br>FREQ | RELATIVE FREQUENCY |    |    |    |    |    |    |    |    |    |     | DISTRIBUTION | PARAMETERS | D<br>VALUE | D<br>ALPHA |
|----------------|--------------------|----|----|----|----|----|----|----|----|----|-----|--------------|------------|------------|------------|
|                | 0                  | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |              |            |            |            |
| 0              | .                  | .  | .  | .  | .  | .  | .  | .  | .  | .  | .   | UNIFORM      | .          | .          | .          |
| 0              | .                  | .  | .  | .  | .  | .  | .  | .  | .  | .  | .   | TRIANGULAR   | .          | .          | .          |
| 0              | .                  | .  | .  | .  | .  | .  | .  | .  | .  | .  | .   | NORMAL       | .          | .          | .          |
| 0              | .                  | .  | .  | .  | .  | .  | .  | .  | .  | .  | .   | LOGNORMAL    | .          | .          | .          |
| 0              | .                  | .  | .  | .  | .  | .  | .  | .  | .  | .  | .   | EXPONENTIAL  | .          | .          | .          |

OCCURRENCE FACTOR: . OCCURRENCES:

DISTRIBUTION OF CHOICE:





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PN: 3F40455-105      ALC: WARNER ROBBINS      RCC: MANPSB      SHEETMETAL, SHEETMETAL MANUFACTURING      WCD: MBG308      WCD DATE: 88064

|                 |                    |                   |                |
|-----------------|--------------------|-------------------|----------------|
| OPERATION: ZPRT | BACKSHOP           | OPERATION TYPE:   | MATERIAL TYPE: |
| SAMPLE SIZE: .  | END ITEMS:         | OUTLIERS DELETED: |                |
|                 | MISSING FLOWTIMES: |                   |                |

| ----- MANPOWER REQUIRED ----- |     |                | ----- EQUIPMENT REQUIRED ----- |          |     | BATCH    |         |
|-------------------------------|-----|----------------|--------------------------------|----------|-----|----------|---------|
| SKILL                         | QTY | TIME           | CODE                           | CATEGORY | QTY | FRACTION | MIN MAX |
|                               |     | FRACTION HOURS |                                |          |     | HOURS    |         |
|                               |     |                |                                |          |     |          |         |

## HISTORICAL DATA

| ACTUAL<br>FREQ | RELATIVE FREQUENCY |    |    |    |    |    |    |    |    |    | DISTRIBUTION | PARAMETERS  | D<br>VALUE | D<br>ALPHA |
|----------------|--------------------|----|----|----|----|----|----|----|----|----|--------------|-------------|------------|------------|
|                | 0                  | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 |              |             |            |            |
| 0              | .                  |    |    |    |    |    |    |    |    |    |              | UNIFORM     | .          | .          |
| 0              | .                  |    |    |    |    |    |    |    |    |    |              | TRIANGULAR  | .          | .          |
| 0              | .                  |    |    |    |    |    |    |    |    |    |              | NORMAL      | .          | .          |
| 0              | .                  |    |    |    |    |    |    |    |    |    |              | LOGNORMAL   | .          | .          |
| 0              | .                  |    |    |    |    |    |    |    |    |    |              | EXPONENTIAL | .          | .          |

OCURRENCE FACTOR: . OCCURRENCES:  
DISTRIBUTION OF CHOICE:

SAS

6:56 FRIDAY, FEBRUARY 24, 1989 16

# PART OPERATION SUMMARY

PN: 3F40455-1G5 ALC: WARNER ROBBINS NSN: MANPSA RCC: MANPSA SHEETMETAL, ADHESIVE BONDING  
 OPERATION: ZPRT PCN: 51454A WCD: MBH30B WCD DATE: 88064  
 SAMPLE SIZE: 12 MISSING FLOWTIMES: 0 PRIMARY OPERATION TYPE: PROC MATERIAL TYPE: AL  
 END ITEMS: OUTLIERS DELETED: 0

----- MANPOWER REQUIRED ----- EQUIPMENT REQUIRED -----  
 SKILL QTY FRACTION HOURS CODE CATEGORY QTY FRACTION HOURS BATCH  
 TIME TIME MIN MAX

## HISTORICAL DATA

| ACTUAL<br>FREQ | RELATIVE FREQUENCY |       |    |    |    |    |    |    |    |    |     | D<br>ALPHA |
|----------------|--------------------|-------|----|----|----|----|----|----|----|----|-----|------------|
|                | 0                  | 10    | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |            |
| 0              | 0                  |       |    |    |    |    |    |    |    |    |     |            |
| 5              | 17                 | ***** |    |    |    |    |    |    |    |    |     | 0.183      |
| 10             | 8                  | ***   |    |    |    |    |    |    |    |    |     | 1.00       |
| 15             | 17                 | ***** |    |    |    |    |    |    |    |    |     | 0.348      |
| 20             | 0                  |       |    |    |    |    |    |    |    |    |     | 0.155      |
| 25             | 25                 | ***** |    |    |    |    |    |    |    |    |     | 1.000      |
| 30             | 0                  |       |    |    |    |    |    |    |    |    |     | 0.150      |
| 35             | 0                  |       |    |    |    |    |    |    |    |    |     | 1.00       |
| 40             | 25                 | ***** |    |    |    |    |    |    |    |    |     |            |
| 45             | 0                  |       |    |    |    |    |    |    |    |    |     |            |
| >=50           | 8                  | ***   |    |    |    |    |    |    |    |    |     |            |

OCCURRENCE FACTOR: . OCCURRENCES: 12  
 DISTRIBUTION OF CHOICE: EXPONENTIAL

SAS

6:56 FRIDAY, FEBRUARY 24, 1989 17

PART OPERATION SUMMARY

ALC: WARNER ROBBINS RCC: MANPDC

PN: 3F40455-105

PCN: 51454A

NSN:

WCD: MBI30B WCD DATE: 88064

OPERATION: ZPRT  
SAMPLE SIZE: 11

BACKSHOP OPERATION TYPE:  
MISSING FLOWTIMES: 0

MATERIAL TYPE:  
OUTLIERS DELETED: 0

----- MANPOWER REQUIRED -----

----- EQUIPMENT REQUIRED -----

| SKILL | QTY | FRACTION | TIME | HOURS | CODE | CATEGORY | QTY | FRACTION | TIME | HOURS | BATCH |
|-------|-----|----------|------|-------|------|----------|-----|----------|------|-------|-------|
|-------|-----|----------|------|-------|------|----------|-----|----------|------|-------|-------|

HISTORICAL DATA

| ACTUAL FREQ | 0  | 10    | 20    | 30    | 40    | 50    | 60    | 70    | 80    | 90    | 100   | DISTRIBUTION | PARAMETERS | D VALUE | D ALPHA |      |
|-------------|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------|------------|---------|---------|------|
| 0           | 36 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | UNIFORM      | 0.0        | 43.0    | 0.295   | 1.00 |
| 5           | 9  | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | TRIANGULAR   | 0.0        | 0.5     | 0.170   | 1.00 |
| 10          | 9  | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | NORMAL       | 16.0       | 15.8    | 0.181   | 1.00 |
| 15          | 9  | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | LOGNORMAL    | 16.0       | 15.8    | 0.118   | 1.00 |
| 20          | 9  | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | EXPONENTIAL  | 17.1       |         | 0.118   | 1.00 |
| 25          | 0  | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** |              |            |         |         |      |
| 30          | 9  | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** |              |            |         |         |      |
| 35          | 0  | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** |              |            |         |         |      |
| 40          | 18 | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** |              |            |         |         |      |
| 45          | 0  | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** |              |            |         |         |      |
| 50          | 0  | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** | ***** |              |            |         |         |      |

OCCURRENCE FACTOR: 11

DISTRIBUTION OF CHOICE: EXPONENTIAL

SAS

6:56 FRIDAY, FEBRUARY 24, 1989 18

# PART OPERATION SUMMARY

PN: 3F40455-103  
 OPERATION: ZPRT  
 SAMPLE SIZE: 13  
 ALC: WARNER ROBBINS  
 RCC: MANPSA  
 SHEETMETAL, ADHESIVE BONDING  
 NSN:  
 PCN: S1454A  
 WCD: MBJ30B  
 WCD DATE: 88064  
 PRIMARY  
 MISSING FLOWTIMES: 0  
 END ITEMS:  
 OPERATION TYPE: PROC  
 MATERIAL TYPE: AL  
 OUTLIERS DELETED: 0

----- MANPOWER REQUIRED -----  
 SKILL QTY FRACTION TIME EQUIPMENT REQUIRED TIME BATCH  
 MIN MAX

## HISTORICAL DATA

| ACTUAL | 0   | 10  | 20  | 30  | 40  | 50  | 60  | 70  | 80  | 90  | 100 | DISTRIBUTION | PARAMETERS | D VALUE | D ALPHA |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------------|------------|---------|---------|
| FREQ   | 46  | 15  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | UNIFORM      | 0 0        | 0.413   | 0.02    |
| 0      | 10  | 20  | 30  | 40  | 50  | 60  | 70  | 80  | 90  | 100 | 0   | TRIANGULAR   | 0 0        | 0.381   | 0.04    |
| 10     | 20  | 30  | 40  | 50  | 60  | 70  | 80  | 90  | 100 | 0   | 0   | NORMAL       | 23.2 25.9  | 0.246   | 1.00    |
| 20     | 30  | 40  | 50  | 60  | 70  | 80  | 90  | 100 | 0   | 0   | 0   | LOGNORMAL    | 23.2 25.9  | 0.124   | 1.00    |
| 30     | 40  | 50  | 60  | 70  | 80  | 90  | 100 | 0   | 0   | 0   | 0   | EXPONENTIAL  | 24.5       | 0.277   | 1.00    |
| 40     | 50  | 60  | 70  | 80  | 90  | 100 | 0   | 0   | 0   | 0   | 0   |              |            |         |         |
| 50     | 60  | 70  | 80  | 90  | 100 | 0   | 0   | 0   | 0   | 0   | 0   |              |            |         |         |
| 60     | 70  | 80  | 90  | 100 | 0   | 0   | 0   | 0   | 0   | 0   | 0   |              |            |         |         |
| 70     | 80  | 90  | 100 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |              |            |         |         |
| 80     | 90  | 100 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |              |            |         |         |
| 90     | 100 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |              |            |         |         |
| >=100  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |              |            |         |         |

OCCURRENCE FACTOR: 13  
 DISTRIBUTION OF CHOICE: LOGNORMAL

## PART OPERATION SUMMARY

PN: 3F40455-105  
 OPERATION: ZPRT  
 SAMPLE SIZE:  
 MISSING FLOWTIMES: .  
 PRIMARY OPERATION TYPE: INS  
 END ITEMS: OUTLIERS DELETED:  
 NSN: WCD: MBQ30B WCD DATE: 88064  
 PCN: 51454A  
 RCC: MANPSA SHEETMETAL, ADHESIVE BONDING  
 ALC: WARNER ROBBINS

| SKILL | MANPOWER REQUIRED |          | EQUIPMENT REQUIRED |          | BATCH<br>MIN MAX |
|-------|-------------------|----------|--------------------|----------|------------------|
|       | QTY               | FRACTION | QTY                | FRACTION |                  |
|       |                   |          |                    |          |                  |

## HISTORICAL DATA

| ACTUAL<br>FREQ | RELATIVE FREQUENCY |    |    |    |    |    |    |    |    |    |     | DISTRIBUTION | PARAMETERS  | D<br>VALUE | D<br>ALPHA |
|----------------|--------------------|----|----|----|----|----|----|----|----|----|-----|--------------|-------------|------------|------------|
|                | 0                  | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |              |             |            |            |
| 0              | .                  |    |    |    |    |    |    |    |    |    |     |              | UNIFORM     | .          | .          |
| 0              | .                  |    |    |    |    |    |    |    |    |    |     |              | TRIANGULAR  | .          | .          |
| 0              | .                  |    |    |    |    |    |    |    |    |    |     |              | NORMAL      | .          | .          |
| 0              | .                  |    |    |    |    |    |    |    |    |    |     |              | LOGNORMAL   | .          | .          |
| 0              | .                  |    |    |    |    |    |    |    |    |    |     |              | EXPONENTIAL | .          | .          |

OCURRENCE FACTOR: . OCCURRENCES:  
DISTRIBUTION OF CHOICE:

SAS

6:58 FRIDAY, FEBRUARY 24, 1989 20

PART OPERATION SUMMARY

PN: 3F40455-105  
ALC: WARNER ROBBINS  
RCC: MANPSA  
SHEETMETAL, ADHESIVE BONDING  
PCN: 51454A  
WCD: M80A1B  
WCD DATE: 87364  
OPERATION: ZPRT  
SAMPLE SIZE: 4  
BACKSHOP  
OPERATION TYPE:  
MISSING FLOWTIMES: 1  
END ITEMS:  
MATERIAL TYPE:  
OUTLIERS DELETED: 0

----- MANPOWER REQUIRED -----  
SKILL QTY FRACTION HOURS  
----- TIME -----  
EQUIPMENT REQUIRED  
CATEGORY QTY FRACTION HOURS  
BATCH  
MIN MAX

HISTORICAL DATA

| ACTUAL<br>FREQ | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | DISTRIBUTION | PARAMETERS | D<br>VALUE | D<br>ALPHA |
|----------------|---|----|----|----|----|----|----|----|----|----|-----|--------------|------------|------------|------------|
| 0              | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | UNIFORM      | 0.0        | 17.0       | 0.639      |
| 2              | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | TRIANGULAR   | 0.0        | 1.0 17.0   | 0.588      |
| 4              | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | NORMAL       | 4.8        | 8.2        | 0.404      |
| 6              | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | LOGNORMAL    | 0.3        | 0.5        | 0.000      |
| 8              | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | EXPONENTIAL  | 5.3        |            | 0.438      |
| 10             | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   |              |            |            |            |
| 12             | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   |              |            |            |            |
| 14             | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   |              |            |            |            |
| 16             | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   |              |            |            |            |
| 18             | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   |              |            |            |            |
| >=20           | 0 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   |              |            |            |            |

OCCURRENCE FACTOR: 5

DISTRIBUTION OF CHOICE: HISTORICAL DISCRETE

## ALC: WARNER ROBBINS      RCC: MANPPB

[illegible]

| ACTUAL<br>FREQ | RELATIVE FREQUENCY |    |    |    |    |    |    |    |    |    |     | DISTRIBUTION | PARAMETERS | D<br>VALUE | D<br>ALPHA |
|----------------|--------------------|----|----|----|----|----|----|----|----|----|-----|--------------|------------|------------|------------|
|                | 0                  | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |              |            |            |            |
| 0              | .                  | .  | .  | .  | .  | .  | .  | .  | .  | .  | .   | UNIFORM      | .          | .          | .          |
| 0              | .                  | .  | .  | .  | .  | .  | .  | .  | .  | .  | .   | TRIANGULAR   | .          | .          | .          |
| 0              | .                  | .  | .  | .  | .  | .  | .  | .  | .  | .  | .   | NORMAL       | .          | .          | .          |
| 0              | .                  | .  | .  | .  | .  | .  | .  | .  | .  | .  | .   | LOGNORMAL    | .          | .          | .          |
| 0              | .                  | .  | .  | .  | .  | .  | .  | .  | .  | .  | .   | EXPONENTIAL  | .          | .          | .          |

OCURRENCE FACTOR : . OCCURRENCES :  
DISTRIBUTION OF CHOICE :

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| ----- | MANPOWER REQUIRED | ----- | ----- | EQUIPMENT REQUIRED | ----- |
|-------|-------------------|-------|-------|--------------------|-------|
| 1     | 1                 | 1     | 1     | 1                  | 1     |
| 2     | 2                 | 2     | 2     | 2                  | 2     |
| 3     | 3                 | 3     | 3     | 3                  | 3     |
| 4     | 4                 | 4     | 4     | 4                  | 4     |
| 5     | 5                 | 5     | 5     | 5                  | 5     |
| 6     | 6                 | 6     | 6     | 6                  | 6     |
| 7     | 7                 | 7     | 7     | 7                  | 7     |
| 8     | 8                 | 8     | 8     | 8                  | 8     |
| 9     | 9                 | 9     | 9     | 9                  | 9     |
| 10    | 10                | 10    | 10    | 10                 | 10    |
| 11    | 11                | 11    | 11    | 11                 | 11    |
| 12    | 12                | 12    | 12    | 12                 | 12    |
| 13    | 13                | 13    | 13    | 13                 | 13    |
| 14    | 14                | 14    | 14    | 14                 | 14    |
| 15    | 15                | 15    | 15    | 15                 | 15    |
| 16    | 16                | 16    | 16    | 16                 | 16    |
| 17    | 17                | 17    | 17    | 17                 | 17    |
| 18    | 18                | 18    | 18    | 18                 | 18    |
| 19    | 19                | 19    | 19    | 19                 | 19    |
| 20    | 20                | 20    | 20    | 20                 | 20    |
| 21    | 21                | 21    | 21    | 21                 | 21    |
| 22    | 22                | 22    | 22    | 22                 | 22    |
| 23    | 23                | 23    | 23    | 23                 | 23    |
| 24    | 24                | 24    | 24    | 24                 | 24    |
| 25    | 25                | 25    | 25    | 25                 | 25    |
| 26    | 26                | 26    | 26    | 26                 | 26    |
| 27    | 27                | 27    | 27    | 27                 | 27    |
| 28    | 28                | 28    | 28    | 28                 | 28    |
| 29    | 29                | 29    | 29    | 29                 | 29    |
| 30    | 30                | 30    | 30    | 30                 | 30    |
| 31    | 31                | 31    | 31    | 31                 | 31    |
| 32    | 32                | 32    | 32    | 32                 | 32    |
| 33    | 33                | 33    | 33    | 33                 | 33    |
| 34    | 34                | 34    | 34    | 34                 | 34    |
| 35    | 35                | 35    | 35    | 35                 | 35    |
| 36    | 36                | 36    | 36    | 36                 | 36    |
| 37    | 37                | 37    | 37    | 37                 | 37    |
| 38    | 38                | 38    | 38    | 38                 | 38    |
| 39    | 39                | 39    | 39    | 39                 | 39    |
| 40    | 40                | 40    | 40    | 40                 | 40    |
| 41    | 41                | 41    | 41    | 41                 | 41    |
| 42    | 42                | 42    | 42    | 42                 | 42    |
| 43    | 43                | 43    | 43    | 43                 | 43    |
| 44    | 44                | 44    | 44    | 44                 | 44    |
| 45    | 45                | 45    | 45    | 45                 | 45    |
| 46    | 46                | 46    | 46    | 46                 | 46    |
| 47    | 47                | 47    | 47    | 47                 | 47    |
| 48    | 48                | 48    | 48    | 48                 | 48    |
| 49    | 49                | 49    | 49    | 49                 | 49    |
| 50    | 50                | 50    | 50    | 50                 | 50    |
| 51    | 51                | 51    | 51    | 51                 | 51    |
| 52    | 52                | 52    | 52    | 52                 | 52    |
| 53    | 53                | 53    | 53    | 53                 | 53    |
| 54    | 54                | 54    | 54    | 54                 | 54    |
| 55    | 55                | 55    | 55    | 55                 | 55    |
| 56    | 56                | 56    | 56    | 56                 | 56    |
| 57    | 57                | 57    | 57    | 57                 | 57    |
| 58    | 58                | 58    | 58    | 58                 | 58    |
| 59    | 59                | 59    | 59    | 59                 | 59    |
| 60    | 60                | 60    | 60    | 60                 | 60    |
| 61    | 61                | 61    | 61    | 61                 | 61    |
| 62    | 62                | 62    | 62    | 62                 | 62    |
| 63    | 63                | 63    | 63    | 63                 | 63    |
| 64    | 64                | 64    | 64    | 64                 | 64    |
| 65    | 65                | 65    | 65    | 65                 | 65    |
| 66    | 66                | 66    | 66    | 66                 | 66    |
| 67    | 67                | 67    | 67    | 67                 | 67    |
| 68    | 68                | 68    | 68    | 68                 | 68    |
| 69    | 69                | 69    | 69    | 69                 | 69    |
| 70    | 70                | 70    | 70    | 70                 | 70    |
| 71    | 71                | 71    | 71    | 71                 | 71    |
| 72    | 72                | 72    | 72    | 72                 | 72    |
| 73    | 73                | 73    | 73    | 73                 | 73    |
| 74    | 74                | 74    | 74    | 74                 | 74    |
| 75    |                   |       |       |                    |       |

[illegible]

|       | HOURS | CATEGORY | QTY | FRACTION | DURATION<br>HOURS | BATCH<br>MIN MAX |
|-------|-------|----------|-----|----------|-------------------|------------------|
| SHEET | QTY   | CODE     |     |          |                   |                  |

UNIFORM

|     | Normal | Lognormal |
|-----|--------|-----------|
| 1   | 0.0000 | 0.0000    |
| 2   | 0.0000 | 0.0000    |
| 3   | 0.0000 | 0.0000    |
| 4   | 0.0000 | 0.0000    |
| 5   | 0.0000 | 0.0000    |
| 6   | 0.0000 | 0.0000    |
| 7   | 0.0000 | 0.0000    |
| 8   | 0.0000 | 0.0000    |
| 9   | 0.0000 | 0.0000    |
| 10  | 0.0000 | 0.0000    |
| 11  | 0.0000 | 0.0000    |
| 12  | 0.0000 | 0.0000    |
| 13  | 0.0000 | 0.0000    |
| 14  | 0.0000 | 0.0000    |
| 15  | 0.0000 | 0.0000    |
| 16  | 0.0000 | 0.0000    |
| 17  | 0.0000 | 0.0000    |
| 18  | 0.0000 | 0.0000    |
| 19  | 0.0000 | 0.0000    |
| 20  | 0.0000 | 0.0000    |
| 21  | 0.0000 | 0.0000    |
| 22  | 0.0000 | 0.0000    |
| 23  | 0.0000 | 0.0000    |
| 24  | 0.0000 | 0.0000    |
| 25  | 0.0000 | 0.0000    |
| 26  | 0.0000 | 0.0000    |
| 27  | 0.0000 | 0.0000    |
| 28  | 0.0000 | 0.0000    |
| 29  | 0.0000 | 0.0000    |
| 30  | 0.0000 | 0.0000    |
| 31  | 0.0000 | 0.0000    |
| 32  | 0.0000 | 0.0000    |
| 33  | 0.0000 | 0.0000    |
| 34  | 0.0000 | 0.0000    |
| 35  | 0.0000 | 0.0000    |
| 36  | 0.0000 | 0.0000    |
| 37  | 0.0000 | 0.0000    |
| 38  | 0.0000 | 0.0000    |
| 39  | 0.0000 | 0.0000    |
| 40  | 0.0000 | 0.0000    |
| 41  | 0.0000 | 0.0000    |
| 42  | 0.0000 | 0.0000    |
| 43  | 0.0000 | 0.0000    |
| 44  | 0.0000 | 0.0000    |
| 45  | 0.0000 | 0.0000    |
| 46  | 0.0000 | 0.0000    |
| 47  | 0.0000 | 0.0000    |
| 48  | 0.0000 | 0.0000    |
| 49  | 0.0000 | 0.0000    |
| 50  | 0.0000 | 0.0000    |
| 51  | 0.0000 | 0.0000    |
| 52  | 0.0000 | 0.0000    |
| 53  | 0.0000 | 0.0000    |
| 54  | 0.0000 | 0.0000    |
| 55  | 0.0000 | 0.0000    |
| 56  | 0.0000 | 0.0000    |
| 57  | 0.0000 | 0.0000    |
| 58  | 0.0000 | 0.0000    |
| 59  | 0.0000 | 0.0000    |
| 60  | 0.0000 | 0.0000    |
| 61  | 0.0000 | 0.0000    |
| 62  | 0.0000 | 0.0000    |
| 63  | 0.0000 | 0.0000    |
| 64  | 0.0000 | 0.0000    |
| 65  | 0.0000 | 0.0000    |
| 66  | 0.0000 | 0.0000    |
| 67  | 0.0000 | 0.0000    |
| 68  | 0.0000 | 0.0000    |
| 69  | 0.0000 | 0.0000    |
| 70  | 0.0000 | 0.0000    |
| 71  | 0.0000 | 0.0000    |
| 72  | 0.0000 | 0.0000    |
| 73  | 0.0000 | 0.0000    |
| 74  | 0.0000 | 0.0000    |
| 75  | 0.0000 | 0.0000    |
| 76  | 0.0000 | 0.0000    |
| 77  | 0.0000 | 0.0000    |
| 78  | 0.0000 | 0.0000    |
| 79  | 0.0000 | 0.0000    |
| 80  | 0.0000 | 0.0000    |
| 81  | 0.0000 | 0.0000    |
| 82  | 0.0000 | 0.0000    |
| 83  | 0.0000 | 0.0000    |
| 84  | 0.0000 | 0.0000    |
| 85  | 0.0000 | 0.0000    |
| 86  | 0.0000 | 0.0000    |
| 87  | 0.0000 | 0.0000    |
| 88  | 0.0000 | 0.0000    |
| 89  | 0.0000 | 0.0000    |
| 90  | 0.0000 | 0.0000    |
| 91  | 0.0000 | 0.0000    |
| 92  | 0.0000 | 0.0000    |
| 93  | 0.0000 | 0.0000    |
| 94  | 0.0000 | 0.0000    |
| 95  | 0.0000 | 0.0000    |
| 96  | 0.0000 | 0.0000    |
| 97  | 0.0000 | 0.0000    |
| 98  | 0.0000 | 0.0000    |
| 99  | 0.0000 | 0.0000    |
| 100 | 0.0000 | 0.0000    |

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



**DISASSEMBLY/ASSEMBLY PROFILE**

[illegible]

[illegible][illegible]

| OPTION 3 - DISPLAY BCM WITH MFG PART NRS BY PEN |                 |         |       |     |     |          |         |       |   |            |       | PAGE           | 2      |
|-------------------------------------------------|-----------------|---------|-------|-----|-----|----------|---------|-------|---|------------|-------|----------------|--------|
| PCN                                             | EI-IDENTITY     | ENGR    | QFR   | CCC | RCC | DATE-EST | DATE-LA | INDEX |   |            |       |                |        |
| 51454A                                          | 1550009275007JH | MANIEEF | 00100 | 100 | J   | 87150    | 88193   | 87    |   |            |       |                |        |
|                                                 | COMP-STOCK-NR   | UPA     | STD   | MI  | C   | M        | E       | P     | I | UNIT-PRICE | *143* | MFG-PART-NR    | FCBN * |
| 1550000727111JH                                 | 2               | 100     | EN    | A   | D   | EA       | N       | 3     | U | 29.32      | 8     | 3F42106-103    | 98597  |
|                                                 |                 |         |       |     |     |          |         |       |   |            |       | 3F42106-103    | 98599  |
| 1550001825349JH                                 | 1               | 16      | EN    | A   | D   | EA       | N       | 3     | U | 73.17      | 8     | 3F40353-143    | 98597  |
| 1550001683322JH                                 | 1               | 70      | EN    | A   | D   | EA       | N       | 3     | U | 2122.40    | 8     | 3F40351-1011K1 | 98599  |
| 1550001890715JH                                 | 1               | 74      | EN    | A   | D   | EA       | N       | 3     | U | 30.13      | 8     | 3F40353-143    | 98597  |
|                                                 |                 |         |       |     |     |          |         |       |   |            |       | 3F40353-143    | 98599  |

|                 |   |    |    |   |   |    |   |   |   |         |   |
|-----------------|---|----|----|---|---|----|---|---|---|---------|---|
| 156001233334JH  | 1 | 11 | BM | A | D | EA | N | M | U | 2192.53 | B |
| 1560012330441JH | 1 | 13 | BM | A | D | EA | N | 3 | U | 2480.47 | B |
| 1560012331564JH | 1 | 24 | BM | A | D | EA | N | M | U | 1774.52 | B |
| 1560012332441JH | 1 | 50 | BM | A | D | EA | N | M | U | 1890.73 | B |
| 1560012337211JH | 1 | 30 | BM | A | D | EA | N | M | U | 1491.36 | B |
| 1560012337457JH | 1 | 31 | BM | A | D | EA | N | M | U | 2026.48 | B |
| 1560012329012JH | 1 | 99 | BM | A | D | EA | N | 3 | U | 105.30  | B |
| 1560012329018JH | 1 | 36 | BM | A | D | EA | N | 3 | U | 1077.31 | B |
| 1560012932718JH | 0 | 0  | BM | A | D | EA | N | 3 | U | 36.92   | B |
| 1560012933476JH | 1 | 20 | BM | A | D | EA | N | 3 | U | 2039.51 | B |
| 1560012936653JH | 1 | 24 | BM | A | D | EA | N | 3 | U | 2010.19 | B |
| 1560012976567JH | 3 | 40 | BM | A | D | EA | N | M | U | 27.15   | B |
| 1560008676317   | 2 | 35 | BM | A | D | EA | T | 2 | U | 209.42  | B |
| 1560008617576   | 1 | 27 | BM | A | D | EA | N | F | U | 13.87   | B |
| 1560008277890   | 1 | 0  | BM | L | T | EA | N | F | U | 1.17    | B |
| 1560008571515JH | 1 | 70 | BM | A | D | EA | N | 3 | U | 13.10   | B |

OPTION 3 - DISPLAY BOM WITH NFB PART NRS BY PDM  
PDM 01-IDENTITY ENGR OFFER OCC RCO DATE-ENT DATE-LS INDEX  
154544 15600092780074 HARVEST 00100 100 J 87100 88193 37  
1560010757794JH 1 13 BM A D EA N 3 U 2015.8 2015.8 98897  
156001233334JH 1 11 BM A D EA N M U 2192.53 8 98897  
1560012330441JH 1 13 BM A D EA N 3 U 2480.47 8 98897  
1560012331564JH 1 24 BM A D EA N M U 1774.52 8 98897  
1560012332441JH 1 50 BM A D EA N M U 1890.73 8 98897  
1560012337211JH 1 30 BM A D EA N M U 1491.36 8 98897  
1560012337457JH 1 31 BM A D EA N M U 2026.48 8 98897  
1560012929012JH 1 99 BM A D EA N 3 U 105.30 8 98897  
1560012929018JH 1 36 BM A D EA N 3 U 1077.31 8 98897  
1560012932718JH 0 0 BM A D EA N 3 U 36.92 8 98897  
1560012933476JH 1 20 BM A D EA N 3 U 2039.51 8 98897  
1560012936653JH 1 24 BM A D EA N 3 U 2010.19 8 98897  
1560012976567JH 3 40 BM A D EA N M U 27.15 8 98897  
1560008676317 2 35 BM A D EA T 2 U 209.42 8 98897  
1560008617576 1 27 BM A D EA N F U 13.87 8 98897  
1560008277890 1 0 BM L T EA N F U 1.17 8 98897  
1560008571515JH 1 70 BM A D EA N 3 U 13.10 8 98897

|               |   |   |    |   |   |    |   |   |   |       |   |            |       |
|---------------|---|---|----|---|---|----|---|---|---|-------|---|------------|-------|
| 5310001872395 | 0 | 0 | BM | L | I | HD | N | F | U | 1.20  | B | MS20002C7  | 96706 |
| 5310002090027 | 0 | 0 | BM | L | I | HD | N | F | U | 1.20  | B | MS20002C10 | 96706 |
| 5310002757211 | 0 | 0 | BM | L | I | HD | N | F | U | 6.77  | B | MS20002C3  | 88044 |
| 5310002832177 | 0 | 0 | BM | L | I | HD | N | F | U | 13.70 | B | MS20002C7  | 96706 |
| 5310003957079 | 0 | 0 | BM | L | I | HD | N | F | U | 5.63  | B | BC22P301   | 57310 |
| 5310005961766 | 0 | 0 | BM | L | I | HD | N | F | U | 2.95  | B | MS20002C4  | 57310 |
| 5310007367062 | 1 | 0 | BM | L | I | EA | N | F | U | 1.10  | B | MS20002C8  | 96706 |

|               |   |   |    |   |   |    |   |   |   |       |   |            |       |
|---------------|---|---|----|---|---|----|---|---|---|-------|---|------------|-------|
| 5310001872395 | 0 | 0 | BM | L | I | HD | N | F | U | 1.20  | B | MS20002C7  | 96706 |
| 5310002090027 | 0 | 0 | BM | L | I | HD | N | F | U | 1.20  | B | MS20002C10 | 96706 |
| 5310002757211 | 0 | 0 | BM | L | I | HD | N | F | U | 6.77  | B | MS20002C3  | 88044 |
| 5310002832177 | 0 | 0 | BM | L | I | HD | N | F | U | 13.70 | B | MS20002C7  | 96706 |
| 5310003957079 | 0 | 0 | BM | L | I | HD | N | F | U | 5.63  | B | BC22P301   | 57310 |
| 5310005961766 | 0 | 0 | BM | L | I | HD | N | F | U | 2.95  | B | MS20002C4  | 57310 |
| 5310007367062 | 1 | 0 | BM | L | I | EA | N | F | U | 1.10  | B | MS20002C8  | 96706 |

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OPTION 3 - DISPLAY BOM WITH MFG PART NRS BY PDN
PCN EI-IDENTITY ENGR CPER CCC RGD DATE-EST DATE-LA INDEX
51454A 1550009275007JH MANIEEF 00100 100 J 67150 SB193 97
COMP-STOCK-NR UFA STD MI C M UI E P I UNIT-PRICE *145# MFG-PART-NR PFCN *
15X1530 19728
2703A 76767
43604166 53275
51044 34523
7203557 23040
JHP42-113 02032
MS24665-283 76706
P3579 06548
X601 14351
5-4-2047-26-33 81357
MS20392-3021 76706
MS20392-3021 99999
MS20392-3021PIN 99997
3F42124-101 76752
3F42124-101 PI 99999
3F42124-103 76697
MS1670-CGL4 80235
FA154-4 05341
35602-3-4 05197

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[illegible]

|                 |   |    |    |   |   |    |   |    |   |        |   |
|-----------------|---|----|----|---|---|----|---|----|---|--------|---|
| 55+0000195735JH | 2 | 0  | EM | A | D | EA | N | FC | U | 8.36   | B |
| 55+0001416982   | 1 | 0  | EM | A | D | EA | N | FC | U | 1.07   | B |
| 55+00067390816  | 1 | 11 | EM | A | D | EA | N | FC | U | 155.66 | B |
| 55+0010222277   | 1 | 29 | EM | A | D | EA | N | FC | U | 149.66 | B |

11-11-68 11:11 AM

OPTION 3 - DISPLAY BGM WITH MFG PART NRS BY PDN

PDN 51453A 1560009275008JH MANEBF 00100 100 J 67150 88193 89  
 DATE-EST 67150  
 DATE-LA 88193  
 INDEX 89  
 COMP-STOCK-NR UPA STD MI C M UI E P I UNIT-PRICE \*1&S\* MFG-PART-NR FSCM \*  
 1560004653970JH 1 40 BM A D EA N 3 U 24.50 B 3F40353-270 98897  
 1560004653973JH 1 37 BM A D EA N 3 U 26.70 B 3F40353-142 98897  
 1560004653975JH 1 37 BM A D EA N 3 U 31.55 B 3F40353-144ANGL 99999  
 1560004907655JH 1 33 BM A D EA N 3 U 27.08 B 3F40353-200 98897  
 1560004907655JH 1 40 BM A D EA N 3 U 28.79 B 3F40353-204 98897  
 1560004907655JH 1 33 BM A D EA N 3 U 27.13 B 3F40353-244ANGL 99999

| PDN            | QTY | UNIT | PRICE | TOTAL    | DATE-EST | DATE-LA | INDEX | FSCM  |
|----------------|-----|------|-------|----------|----------|---------|-------|-------|
| 156000111145JH | 1   | 1    | 1     | 1        | 1        | 1       | 1     | 1     |
| 156000111147JH | 1   | 1    | 1     | 1        | 1        | 1       | 1     | 1     |
| 156000125020JH | 1   | 1    | 1     | 1        | 1        | 1       | 1     | 1     |
| 156000143449JH | 0   | 0    | 0     | 0        | 0        | 0       | 0     | 0     |
| 156000143467JH | 1   | 17   | 5M    | 86.49    | 5        | 5       | 5     | 98897 |
| 156000152417JH | 1   | 7    | 5M    | 75.03    | 3        | 3       | 3     | 98897 |
| 156000182536JH | 1   | 3    | 5M    | 39.17    | 3        | 3       | 3     | 98897 |
| 156000182539JH | 1   | 40   | 5M    | 62.46    | 6        | 6       | 6     | 98897 |
| 156000186354JH | 1   | 60   | 5M    | 24614.63 | 6        | 6       | 6     | 98897 |
| 156000197101JH | 1   | 0    | 5M    | 3630.70  | 6        | 6       | 6     | 98897 |
| 156000224323JH | 1   | 35   | 5M    | 34.35    | 6        | 6       | 6     | 99999 |
| 156000460341JH | 1   | 37   | 5M    | 81.77    | 6        | 6       | 6     | 99999 |
| 156000460342JH | 1   | 31   | 5M    | 83.28    | 6        | 6       | 6     | 99999 |
| 156000462647JH | 1   | 100  | 5M    | 20002.63 | 6        | 6       | 6     | 99999 |
| 156000463707JH | 2   | 81   | 5M    | 4.55     | 6        | 6       | 6     | 98897 |
| 156000463968JH | 1   | 33   | 5M    | 27.13    | 6        | 6       | 6     | 99999 |

OPTION 3 - DISPLAY BGM WITH MFG PART NRS BY PDN

PDN 51453A 1560009275008JH MANEBF 00100 100 J 67150 88193 89

DATE-EST 67150

DATE-LA 88193

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COMP-STOCK-NR UPA STD MI C M UI E P I UNIT-PRICE \*1&S\* MFG-PART-NR FSCM \*

1560004653970JH 1 40 BM A D EA N 3 U 24.50 B 3F40353-270 98897

1560004653973JH 1 37 BM A D EA N 3 U 26.70 B 3F40353-142 98897

1560004653975JH 1 37 BM A D EA N 3 U 31.55 B 3F40353-144ANGL 99999

1560004907655JH 1 33 BM A D EA N 3 U 27.08 B 3F40353-200 98897

1560004907655JH 1 40 BM A D EA N 3 U 28.79 B 3F40353-204 98897

1560004907655JH 1 33 BM A D EA N 3 U 27.13 B 3F40353-244ANGL 99999



| OPTION 3 - DISPLAY SUM WITH MFG PART MRS BY FON | PAGE 1      |       |      |     |     |          |         |       |   |                  |
|-------------------------------------------------|-------------|-------|------|-----|-----|----------|---------|-------|---|------------------|
| FON                                             | EQ-IDENTITY | ENGR  | OPER | CCC | RSC | DATE-EST | DATE-LA | INDEX |   |                  |
| 51455A 15800012700000H                          | MANEER      | 00100 | 100  | 0   | 0   | 67150    | 55175   | 59    |   |                  |
| COMP-STOCK-NR                                   | LRA         | STD   | MI   | C   | M   | LI       | E       | F     | I | UNIT-PRICE *103* |
| 5308005790944                                   | 0           | 0     | BM   | L   | I   | HD       | N       | F     | U | 4.39 L           |
|                                                 |             |       |      |     |     |          |         |       |   | MS31104-4        |
|                                                 |             |       |      |     |     |          |         |       |   | MS31104-8        |
|                                                 |             |       |      |     |     |          |         |       |   | 6799400-25       |
| 53080091196500H                                 | 2           | 74    | BM   | A   | D   | EA       | N       | 3     | U | 14.95 B          |
| 5310P174921F                                    | 4           | 100   | BM   | A   | D   | EA       | N       | M     | U | 27.15 B          |
| 53100014991118                                  | 0           | 0     | BM   | L   | I   | HD       | N       | F     | U | 4.32 B           |
| 5310001670767                                   | 0           | 0     | BM   | L   | I   | HD       | N       | F     | U | 2.49 B           |
| 5310001670833                                   | 0           | 0     | BM   | L   | I   | HD       | N       | F     | U | .75 B            |
|                                                 |             |       |      |     |     |          |         |       |   | MS20002C3        |
|                                                 |             |       |      |     |     |          |         |       |   | AN970-5          |
|                                                 |             |       |      |     |     |          |         |       |   | AN960-716L       |
|                                                 |             |       |      |     |     |          |         |       |   | AN760D716L       |
|                                                 |             |       |      |     |     |          |         |       |   | C141-4-2F87139   |
|                                                 |             |       |      |     |     |          |         |       |   | 8162217          |
| 5310001671235                                   | 0           | 0     | BM   | L   | I   | HD       | N       | F     | U | 5.28 B           |
|                                                 |             |       |      |     |     |          |         |       |   | AN310-4          |
|                                                 |             |       |      |     |     |          |         |       |   | 401 101          |
| 5310002759211                                   | 0           | 0     | BM   | L   | I   | HD       | N       | F     | U | 6.77 B           |
| 5310005957079                                   | 0           | 0     | BM   | L   | I   | HD       | N       | F     | U | 5.63 B           |
| 5310005961766                                   | 0           | 0     | BM   | L   | I   | HD       | N       | F     | U | 2.95 B           |
|                                                 |             |       |      |     |     |          |         |       |   | MS20002C10       |
|                                                 |             |       |      |     |     |          |         |       |   | MS20002C7        |
|                                                 |             |       |      |     |     |          |         |       |   | BCC2P301         |
|                                                 |             |       |      |     |     |          |         |       |   | MS20002C4        |
|                                                 |             |       |      |     |     |          |         |       |   | MS20002C4        |
| 5310007367062                                   | 1           | 0     | BM   | L   | I   | EA       | N       | F     | U | .10 B            |
| 5310008071466                                   | 0           | 0     | BM   | L   | I   | HD       | N       | F     | U | 3.35 B           |
|                                                 |             |       |      |     |     |          |         |       |   | MS20002C8 WASHE  |
|                                                 |             |       |      |     |     |          |         |       |   | MS20364-832C     |
|                                                 |             |       |      |     |     |          |         |       |   | MS21042-08       |
| 5310008071467                                   | 0           | 0     | BM   | L   | I   | HD       | N       | F     | U | 2.85 B           |
|                                                 |             |       |      |     |     |          |         |       |   | MS21042-3        |
|                                                 |             |       |      |     |     |          |         |       |   | MS21042-3        |
|                                                 |             |       |      |     |     |          |         |       |   | MS21042-3 NUT    |
| 5310008071468                                   | 0           | 0     | BM   | L   | I   | HD       | N       | F     | U | 3.80 L ZTB       |
|                                                 |             |       |      |     |     |          |         |       |   | AN364-12BC       |
|                                                 |             |       |      |     |     |          |         |       |   | MS21042-4        |
|                                                 |             |       |      |     |     |          |         |       |   | MS21042-4        |
|                                                 |             |       |      |     |     |          |         |       |   | MS21042-4 NUT    |
|                                                 |             |       |      |     |     |          |         |       |   | FNJ2-40          |
| 5310008114913                                   | 0           | 0     | BM   | L   | I   | HD       | N       | F     | U | 4.53 B           |

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