FINAL REPORT

LIFE CYCLE COST MODEL FOR
MOBILE ELECTRIC POWER
APPENDIX A

29 AUGUST 1986

Science Applications International Corporation

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Distribution Unlimited
FINAL REPORT
LIFE CYCLE COST MODEL FOR
MOBILE ELECTRIC POWER
APPENDIX A

29 AUGUST 1986

VICTORIA YOUNG
CHRISTOPHER FORD
JOHN STEINBOCK

Prepared for the
Belvoir Research Development and Engineering Center

Under
Contract Number DAAK70-84-D-0053
Task Order Number 0020

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SCIENCE APPLICATIONS INTERNATIONAL CORPORATION
Military Operations Analysis Division
1710 Goodridge Drive, T-7-2
McLean, Virginia 22102

DISTRIBUTION STATEMENT A
Approved for public release
Distribution Unlimited
VARIABLE INPUT SHEET

1.011 ENGINEERING

VARIABLES

<table>
<thead>
<tr>
<th>SUBSYSTEM (1)</th>
<th>SUBSYSTEM (2)</th>
<th>SUBSYSTEM (3)</th>
</tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>MANYEARS</td>
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<tr>
<td>MANYEAR $</td>
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THROUGHPUT =

EQUATION:

\[ \text{Q} = \text{CONTRACT} \times (\text{INITIAL} \times (\text{MANYRS} \times \text{MANYRS$} + \text{TRAVEL}) \times (1 + \text{REDESIGN$}) + (\text{MATERIAL$} + \text{TRANS$}) + (\text{TEST EQUIP$} + \text{TRANS$})) + \text{IN HOUSE} \times (\text{MANYRS} \times \text{MANYRS$} + \text{TRAVEL}) + \text{OTHER} \]

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS: PER BASIC

SOURCE: A-1
### VARIABLE INPUT SHEET

---

**1.012 PROD ENG & PLANNING**

**VARIABLES**

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<td>MANY YEAR $</td>
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<tr>
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<td>OTHER</td>
<td></td>
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</table>

**YEARSLY % BREAKDOWN**

|------|------|------|------|------|------|------|

**EQUATION:**

\[
\text{THRUPUT} = \text{CONTRACT} \times \#\text{DRAWINGS} \times \$\text{PER DRAWING} + \text{MANY YEARS} \times \$\text{MANY YEAR} + \text{OTHER}
\]

**DESCRIPTION OF HOW VALUES WERE DERIVED:**

**ASSUMPTIONS:**

**SOURCE:**
VARIABLE INPUT SHEET

1.013 TOOLING

VARIABLES

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPT =

CONTRACT:

HOURS =

HOURLY RATE =

MATERIAL $ =

TRANSPORTATION $ =

OTHER =

YEARLY % BREAKDOWN

1986
1987
1988
1989
1990
1991

EQUATION:

=CONTRACT (MATERIAL$ + TRANSP$ + HOURS * HOURLY RATE)
+OTHER

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

1.014 PROTOTYPE MANUFACTURING

VARIABLES

<table>
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<th>SUBSYSTEM (1)</th>
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<tr>
<td>THRUPUT</td>
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<tr>
<td>MANUFACTURING $</td>
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<td></td>
</tr>
<tr>
<td>SPARES (% OF MANUF)</td>
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<td></td>
</tr>
<tr>
<td>REWORK (% OF MANUF)</td>
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<tr>
<td># PROTOTYPES</td>
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</tr>
<tr>
<td>GFE</td>
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<tr>
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YEARLY % BREAKDOWN

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</tr>
</tbody>
</table>

EQUATION:

\[
(\text{MANUF$} + \text{SPARES}$ \times \text{MANUF$} + \text{REWORK}$ \times \text{MANUF$}) \\
\times \#\text{PROTOTYPES} + \text{GFE} + \text{OTHER}
\]

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

- 1.02 DATA

VARIABLES
---------

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPUT =

CONTRACT:
  MANYEARS =
  MANYEAR $ =
  TRAVEL $ =
  MATERIAL $ =

IN HOUSE:
  MANYEARS =
  MANYEAR $ =
  TRAVEL $ =
  OTHER =

YEARLY % BREAKDOWN

1986
1987
1988
1989
1990
1991

EQUATION:
= CONTRACT (MANYRS*MANYRS) + (TRAVELS) + MATERIAL$ + IN HOUSE (MANYRS*MANYRS) + (TRAVELS) + OTHER

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
### VARIABLE INPUT SHEET

#### 1.03 SYSTEM TEST & EVAL

#### VARIABLES

<table>
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<th>SUBSYSTEM (3)</th>
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<tr>
<td>MATERIAL $</td>
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<td>IN HOUSE:</td>
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<tr>
<td>MANY $</td>
<td>MANY $</td>
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</tr>
<tr>
<td>TRAVEL $</td>
<td>TRAVEL $</td>
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<td>MATERIAL $</td>
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<td>DTII $</td>
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<td>OTI $</td>
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<td>OTII $</td>
<td>OTII $</td>
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</tr>
<tr>
<td>OTHER</td>
<td>OTHER</td>
<td></td>
</tr>
</tbody>
</table>

#### YEARLY % BREAKDOWN:

|------|------|------|------|------|------|------|

#### EQUATION:

\[
\text{EQUATION:} = \text{CONTRACT (MANYRS*MANYRS)} + \text{MATERIALS} + \\
\text{IN HOUSE (MANYRS*MANYRS)} + \text{(TRAVEL$)} + \text{MATERIALS$} + \\
\text{DTI$} + \text{DTII$} + \text{OTI$} + \text{OTII$} + \text{OTHER}
\]

#### DESCRIPTION OF HOW VALUES WERE DERIVED:

#### ASSUMPTIONS:

#### SOURCE:
VARIABLE INPUT SHEET

1.04 SYSTEM PROG MGMT

VARIABLES

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPUT =

MANYEARS =

MANYEAR $ =

OTHER =

YEARLY % BREAKDOWN:
1986
1987
1988
1989
1990
1991

EQUATION:
= (MANYRS * MANYR$) + OTHER

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

1.05 TRAIN SERVICE & EQ

VARIABLES

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPUT =

CONTRACT:

MANYYEARS =
MANYYEAR $ =
TRAVEL $ =

IN HOUSE:

MANYYEARS PREPERATION =
MANYYEAR $ =
MANYYEAR PARTICIPATION =
MANYYEAR $ =
TRAVEL $ =
MATERIAL $ =
OTHER =

YEARLY % BREAKDOWN:
1986
1987
1988
1989
1990
1991

EQUATION:

= CONTRACT (MANYRS * MANYR$) + TRAVEL$ +
  IN HOUSE (MANYRS * MANYR$ FOR PREPARATION) +
  (MANYRS * MANYR$ FOR PARTICIPATION + TRAVEL$) +
  MATERIAL$ + OTHER

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

1.06 FACILITIES

VARIABLES

SUBSYSTEM (1)   SUBSYSTEM (2)   SUBSYSTEM (3)

THRUPUT

YEARLY % BREAKDOWN:
  1986
  1987
  1988
  1989
  1990
  1991

EQUATION:
  1.06 = THRUPUT

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

1.07 OTHER RDT&E DEV

VARIABLES

- SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPUT =

YEARLY % BREAKDOWN:
1986
1987
1988
1989
1990
1991

EQUATION:
1.07 = THRUPUT

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

1.011 ENGINEERING (SUNK COSTS)

SUBSYSTEM (1)  SUBSYSTEM (2)  SUBSYSTEM (3)

THRUPUT -

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

1.012 PROD ENG & PLANNING (SUNK COSTS)

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THROUGHPUT =

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

1.013 TOOLING (SUNK COSTS)

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPUT =

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

1.014 PROTOTYPE MANUFACTURING (SUNK COSTS)

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPUT -

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

1.02 DATA (SUNK COSTS)

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPUT -

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

1.03 SYSTEM TEST & EVAL (SUNK COSTS)

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPT =

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

1.04 SYSTEM PROG MGMT (SUNK COSTS)

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPTU -

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

1.05 TRAIN SERVICE & EQ (SUNK COSTS)

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPUT =

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

1.06 FACILITIES (SUNK COSTS)

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPUT -

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

1.07 OTHER RDT&E DEV (SUNK COSTS)

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPUT =

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
### PRODUCTION SCHEDULE INPUT

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<th>Distribution</th>
<th># of systems</th>
<th>usage rate</th>
<th>B x C</th>
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<tr>
<td>CONUS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active</td>
<td></td>
<td>0.25</td>
<td>0</td>
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<tr>
<td>Reserve</td>
<td></td>
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</tr>
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<td>Training</td>
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<td></td>
<td>0</td>
</tr>
<tr>
<td><strong>Sum</strong></td>
<td></td>
<td>0</td>
<td><strong>Weighted Sum</strong> = 0</td>
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</table>

- **Ready rate** = Max prod. # =
- **MTTR** = Min prod. # =
- **MTBF** = 1 Backorder # =
- **MCTTO**
- **MTBO** = 1 Year 1 prod. =
- **Ann. operating time** = Year 2 prod. =
- **Useful system life** = Year 3 prod. =
- **# of operating years** = Year 4 prod. =
- **Initial prod years** = Year 5 prod. =
- **Total prod years** =
PRODUCTION CALCULATION AND SCHEDULE EXAMPLE

PRODUCTION SCHEDULE CALCULATION

<p>| | | | |</p>
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</tr>
<tr>
<td>Annual wearout number</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Total wearout number</td>
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<td></td>
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</tr>
<tr>
<td>Replacement number</td>
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<td>TOTAL Production</td>
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<td>20</td>
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RESULTS OF CALCULATION

Total Production Quantity = 0
Annual Wearout = 0

Spread over production years--

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Cum prod.</th>
<th>Remain prod.</th>
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<tr>
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<td>19</td>
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<tr>
<td>10</td>
<td>20</td>
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VARIABLE INPUT SHEET

2.011 INITIAL PROD FACILITY

VARIABLES

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPTUT =
MATERIAL $ =
MANYEARS =
MANYEAR $ =
OTHER =

EQUATION:
= MANYEARS * MANYEAR$ + MATERIAL$ + OTHER

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

2.012 PROD BASE SUPPORT

VARIABLES

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPUT =

EQUATIONS:

2.012 = THRUPUT

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLES

THRU PUT =

EQUATION:
2.013 = THRU PUT

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

2.014 OTHER NON REC PROD

VARIABLES

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPUT =

EQUATION:
2.014 = THRUPUT

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

2.021 MANUFACTURING

VARIABLES

--------

SUBSYSTEM (1)  SUBSYSTEM (2)  SUBSYSTEM (3)

THRUPUT =

FIRST UNIT COST = 1.0  1.0  1.0

QUANTITY PRODUCED =

LEARN CURVE FACTOR = 1.0  1.0  1.0

MATERIAL$ PER UNIT =

OVERHEAD % =

G&A % =

PROFIT % =

GFE =

OTHER =

EQUATION:

= ((FIRST UNIT$ OF LABOR/(1+B)*QUANTITY*QUANTITY^(B))
+ QUANTITY * MATERIAL$ PER UNIT) * OH * G&A * PROFIT
+ GFE + OTHER

(B = LOG10 (LEARNING CURVE FACTOR)/LOG102)

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

2.022 RECURRING ENG

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>SUBSYSTEM (1)</th>
<th>SUBSYSTEM (2)</th>
<th>SUBSYSTEM (3)</th>
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</thead>
<tbody>
<tr>
<td>THRUPUT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONTRACT:</td>
<td>MANYEARS</td>
<td>MANYEARS</td>
<td>MANYEARS</td>
</tr>
<tr>
<td>IN HOUSE:</td>
<td>MANYEARS</td>
<td>MANYEARS</td>
<td>OTHER</td>
</tr>
<tr>
<td>COMMON:</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

**EQUATION:**

\[
\text{CONTRACT} (\text{MANYEARS} \times \text{MANYEARS}) + \text{IN-HOUSE} (\text{MANYEARS} \times \text{MANYEARS}) + \text{OTHER}
\]

**DESCRIPTION OF HOW VALUES WERE DERIVED:**

**ASSUMPTIONS:**

**SOURCE:**
VARIABLE INPUT SHEET

2.023 SUSTAINING TOOLING

VARIABLES

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<td></td>
<td></td>
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<tr>
<td>CONTRACT:</td>
<td></td>
<td></td>
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<td>INITIAL Tool %</td>
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<tr>
<td>IN HOUSE:</td>
<td></td>
<td></td>
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<tr>
<td>MANY YEARS</td>
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<td></td>
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<tr>
<td>MANY YEAR $</td>
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<td>COMMON:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OTHER</td>
<td></td>
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</tr>
</tbody>
</table>

EQUATION:

- CONTRACT (% INITIAL TOOLING * INITIAL TOOLING)
+ IN-HOUSE (MANY YEARS * MANY YEAR $)
+ OTHER

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

2.024 QUALITY CONTROL

VARIABLES

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<td>MANYEAR $ =</td>
</tr>
<tr>
<td>COMMON:</td>
<td>OTHER =</td>
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EQUATION:

- CONTRACT (MANYRS * MANYRS)
+ IN-HOUSE (MANYRS * MANYRS)
+ FAT + OTHER

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

2.03 ENGINEERING CHANGES

VARIABLES

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<tr>
<td>CONTRACT:</td>
<td>% OF MANUFAC</td>
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<td>IN HOUSE:</td>
<td>MANYEARS</td>
<td>MANYEAR $</td>
</tr>
<tr>
<td>COMMON:</td>
<td>OTHER</td>
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</tbody>
</table>

EQUATION:
= CONTRACT (% OF MANUFACTURING * MANUFACTURING)
+ IN-HOUSE (MANYRS * MANYR $)
+ OTHER

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

2.04 DATA

VARIABLES

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRU PUT =

CONTRACT:

MANY YEARS =

MANY YEAR $ =

IN HOUSE:

MANY YEARS =

MANY YEAR $ =

COMMON:

# PAGES =

COST/PAGE =

OTHER =

EQUATIONS:

= CONTRACT (MANYRS * MANYR$)

+ IN-HOUSE (MANYRS * MANYR$)

+ (# PAGES * COST/PAGE) + OTHER

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
## VARIABLE INPUT SHEET

### 2.05 SYSTEM TEST & EVALUATION

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<tr>
<td>CONTRACT:</td>
<td>MANYEARS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MANYEAR $</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TRAVEL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN HOUSE:</td>
<td>MANYEARS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MANYEAR $</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TRAVEL</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATERIAL $</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COST TO CONDUCT TEST</td>
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<tr>
<td>COMMON:</td>
<td>OTHER</td>
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</table>

### SPREAD OVER PRODUCTION YEARS

|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

### EQUATION:

\[
\text{EQUATION:} = \text{CONTRACT} (\text{MANYRS} \times \text{MANYR$} + \text{TRAVEL}) + \text{IN-HOUSE} (\text{MANYRS} \times \text{MANYR$} + \text{TRAVEL}) + \text{MATERIAL$} + \text{TEST CONDUCTIONS$} + \text{OTHER}
\]

### DESCRIPTION OF HOW VALUES WERE DERIVED:

### ASSUMPTIONS:

### SOURCE:
VARIABLE INPUT SHEET

2.06 TRAINING SERVICE & EQUIPMENT

VARIABLES
----------
SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPUT =

MANYEARS FOR PREP =
MANYEAR $ =
COST OF CLASS =
#CLASSES =
MANYRS FOR CLASS ATT =
MANYYEAR $ =
TRAVEL $ =
MATERIAL $ =
OTHER =

EQUATIONS:
- (MANYRS * MANYRS CLASS PREP)+(CLASS$ * #CLASSES)
+ (MANYR CLASS ATTENDANCE * MANYRS)+MATERIAL$
+ TRAVEL$ + OTHER

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

2.07 INITIAL SPARES

VARIABLES

---------------------
SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPT -

% UNIT MANUF -
AAO QUANTITY -
OTHER -

EQUATION:
= AAO QUANTITY * (% UNIT MANUF * UNIT MANUF COST)

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

2.08 OPERATIONAL SITE ACTIVITY

VARIABLES

- SUBSYSTEM (1)
- SUBSYSTEM (2)
- SUBSYSTEM (3)

THRUPUT =

EQUATION:
2.08 = THRUPUT

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
2.09 OTHER PROC FUNDED PRODUCTION

VARIABLES

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPUT =

EQUATION:
2.09 = THRUPUT

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
3.01 TEST CONSTRUCTION

VARIABLES

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPUT =

YEARLY % BREAKDOWN

1986
1987
1988
1989
1990
1991

EQUATION:
3.01 = THRUPUT

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
3.02 PRODUCTION CONSTRUCTION

VARIABLES

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPUT =

YEARLY % BREAKDOWN
1986
1987
1988
1989
1990
1991

EQUATION:
3.02 = THRUPUT

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

3.03 OPER/SITE ACT CONSTRUCTION

VARIABLES

---THRUPUT-SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPUT =

YEARLY % BREAKDOWN
1986
1987
1988
1989
1990
1991

EQUATION:
3.03 = THRUPUT

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

3.04 OTHER MCA FUNDED CONSTRUCTION

VARIABLES

----------
SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPTUT =

YEARLY % BREAKDOWN
1986
1987
1988
1989
1990
1991

EQUATION:
3.04 = THRUPTUT

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
### Variable Input Sheet

#### 4.01 System Test & Evaluation

**Variables**

<table>
<thead>
<tr>
<th>Subsystem (1)</th>
<th>Subsystem (2)</th>
<th>Subsystem (3)</th>
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</thead>
<tbody>
<tr>
<td>THRUPUT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONTRACT</td>
<td>MANYEARS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MANYEARS $</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATERIAL $</td>
<td></td>
</tr>
<tr>
<td>IN HOUSE</td>
<td>MANYEARS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MANYEARS $</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TRAVEL $</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATERIAL $</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DTI $</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DTII $</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OTI $</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OTII $</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OTHER</td>
<td></td>
</tr>
</tbody>
</table>

#### Yearly % Breakdown

<table>
<thead>
<tr>
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<th>Value</th>
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</thead>
<tbody>
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<td></td>
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<tr>
<td>1987</td>
<td></td>
</tr>
<tr>
<td>1988</td>
<td></td>
</tr>
<tr>
<td>1989</td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td></td>
</tr>
<tr>
<td>1991</td>
<td></td>
</tr>
</tbody>
</table>

**Equation:**

\[
\text{EQUATION} = \text{CONTRACT} \left( \text{MANYEARS} \times \text{MANYEARS} \right) + \text{MATERIAL} + \text{IN-HOUSE} \left( \text{MANYEARS} \times \text{MANYEARS} \right) + \text{TRAVEL} + \text{MATERIAL} + \text{DTI} + \text{DTII} + \text{OTI} + \text{OTII} + \text{OTHER}
\]

**Description of how values were derived:**

**Assumptions:**

**Source:**
VARIABLE INPUT SHEET

4.02 TRAINING SERVICE & EQUIPMENT

VARIABLES

---------

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPTUT =

MANYRS FOR PREP =
MANYEAR $ =
COST OF CLASS =
#CLASSES =
MANYRS FOR ATTENDANCE =
MANYEAR $ =
MATERIAL $ =
TRAVEL $ =
OTHER =

YEARLY % BREAKDOWN:
  1986
  1987
  1988
  1989
  1990
  1991

EQUATION:

= (MANYEAR$ * MANYRS FOR PREP) + (COST OF CLASS
  * #CLASSES) + (MANYEAR$ * MANYRS FOR ATTENDANCE)
+ MATERIAL$ + TRAVEL$ + OTHER

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
### Variable Input Sheet

**4.03 Transportation**

To calculate 2nd dest cost; input #units and cost/unit for each theater.

<table>
<thead>
<tr>
<th>Theater</th>
<th>#Units</th>
<th>Cost/Unit</th>
<th>#Units * Cost</th>
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</thead>
<tbody>
<tr>
<td>CONUS</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>EUROPE</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>KOREA</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>PACIFIC</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>ALASKA</td>
<td>0</td>
<td>0.0</td>
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</tr>
<tr>
<td>SOUTH</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

COST 2nd dest = 0.0

**Subsystem (1) Subsystem (2) Subsystem (3)**

**Throughput**

**Weight of sys**

1st destination cost

# systems

SUM 2nd dest cost

Other

**Yearly % Breakdown:**

- 1986
- 1987
- 1988
- 1989
- 1990
- 1991

**Equation:**

\[
\text{EQUATION:} = \text{WEIGHT} \times 1.1 \text{ (PACKING FACTOR)} \times (1\text{st DEST COST}) \\
\times \# \text{ SYSTEMS} + \text{WEIGHTED SUM OF 2nd DEST COST} + \text{OTHER}
\]

**Description of how values were derived:**

**Assumptions:**

**Source:**
VARIABLE INPUT SHEET

4.04 INITIAL REPAIR PARTS

VARIABLES

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPUT =

%UNIT MAN FOR REP PARTS =
UNIT MANUFAC COST =
AAO QUANTITY =
OTHER =

YEARLY % BREAKDOWN:
1986
1987
1988
1989
1990
1991

EQUATION:
= (%UNIT MAN COST FOR REP PARTS * UNIT MANUFAC COST) * AAO QUANTITY + OTHER

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

- 4.05 SYSTEM SPECIFIC BASE OP SUPPORT

VARIABLES
----------

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPUT =

YEARLY % BREAKDOWN:
1986
1987
1988
1989
1990
1991

EQUATION:
4.05 - THRUPUT

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

-------------------------

4.06 OTHER O&M FUND FIELD

VARIABLES
---------

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRU PUT =

YEARLY % BREAKDOWN:


EQUATION:

4.06 = THRU PUT

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

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<th>USAGE RATES</th>
<th># UNITS</th>
<th>BASE PAY &amp; THEATER COST</th>
<th>ATTRITION</th>
<th>OPA</th>
<th>CPA</th>
<th>MPA</th>
<th>ROTATION</th>
<th>PCS &amp; TRANS</th>
<th>QM</th>
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### COMMON VARIABLES

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<td>ANNUAL OP HRS -</td>
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</tr>
<tr>
<td>MAINT MANYRS/SYS -</td>
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<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
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</tr>
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<td>MTBF -</td>
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<td>1</td>
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<td>MTTO -</td>
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<td>1</td>
</tr>
<tr>
<td>ANNL MAINT HRS AVAIL -</td>
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<tr>
<td>CREW MANYEARS/SYS -</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td># OP YRS -</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>UNIT MANUF $ -</td>
<td></td>
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<td>MCTTR -</td>
<td></td>
<td></td>
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<td>MCTTO -</td>
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<td>USEFUL SYS LIFETIME -</td>
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<td># UNITS IN TRAINING -</td>
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</table>
**VARIABLE INPUT SHEET**

5.011 REPL REPAIR PARTS (OM)

**VARIABLES**

<table>
<thead>
<tr>
<th>SUBSYSTEM (1)</th>
<th>SUBSYSTEM (2)</th>
<th>SUBSYSTEM (3)</th>
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</thead>
<tbody>
<tr>
<td>( \text{THRU\text{PUT}} ) =</td>
<td>( % \text{ UNIT MANUF } $ ) =</td>
<td>( \text{OTHER} ) =</td>
</tr>
</tbody>
</table>

**EQUATION:**

\[ \text{THRU\text{PUT}} = \text{WEIGHTED } \# \text{ UNITS } \times \% \text{ UNIT MANUF } \$ \times \text{UNIT MANUF } \$ \times \# \text{ OPERATING YRS} + \text{OTHER} \]

**DESCRIPTION OF HOW VALUES WERE DERIVED:**

**ASSUMPTIONS:**

**SOURCE:**
VARIABLE INPUT SHEET

5.012 REPL SPARES (PROC)

VARIABLES

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPTUT =

% UNIT MANUF $ =

OTHER =

EQUATION:

= WEIGHTED # UNITS * % UNIT MANUF $
* UNIT MANUF $ * # OPERATING YRS + OTHER

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

5.013 WAR RES REPAIR PARTS (OM)

VARIABLES

---------

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRU PUT =

# REP PARTS PER SYSTEM =
AVG REPAIR PART $ =
# UNITS IN WAR RES =
OTHER =

EQUATION:
= (# REPAIR PARTS PER SYSTEM * AVG REPAIR PART $) *
   # UNITS IN WAR RES + OTHER

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

5.014 WAR RES SPARES (PROC)

VARIABLES

SUBSYSTEM (1)  SUBSYSTEM (2)  SUBSYSTEM (3)

THRUPT =

# SPARES PER SYSTEM =
AVG SPARES $ =
# UNITS IN WAR RES =
OTHER =

EQUATION:
= ((# SPARES PER SYSTEM * AVG SPARES $)
* # UNITS IN WAR RES + OTHER

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

5.02 PETR, OIL, & LUBE

VARIABLES

SUBSYSTEM (1)  SUBSYSTEM (2)  SUBSYSTEM (3)

THRUPT =

ANNUAL HRS OR MILES =
RATE OF FUEL CONSUMPTION =
FUEL COST =
LUBE FACTOR =
OTHER =

EQUATION:

= ANNUAL HRS OR MILES * RATE OF FUEL CONSUMPTION
  * FUEL COST * LUBE FACTOR
  * WEIGHTED # UNITS * # OPERATING YRS + OTHER

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

5.031 TRAINING AMMO/MISL

VARIABLES
---------
SUBSYSTEM (1)  SUBSYSTEM (2)  SUBSYSTEM (3)

THRUPUT =
AVG AN CONSP PER SYS =
AVG AMMO COST =
# UNITS IN TRAINING =
OTHER =

EQUATION:
= AVG ANNUAL CONSUMPTION PER SYS * AVG AMMO COST
  * # UNITS IN TRAINING * # OPERATING YRS + OTHER

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

5.032 WAR RES AMMO/MISL

VARIABLES

<table>
<thead>
<tr>
<th>SUBSYSTEM (1)</th>
<th>SUBSYSTEM (2)</th>
<th>SUBSYSTEM (3)</th>
</tr>
</thead>
</table>

THRU PUT =

WAR RES CONSUMP =
UNIT AMMO COST =
# WAR RES UNITS =
OTHER =

EQUATION:

= WAR RES CONSUMP * UNIT AMMO COST
* # WAR RES UNITS + OTHER

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

5.041 CIVILIAN LABOR

VARIABLES

<table>
<thead>
<tr>
<th>SUBSYSTEM (1)</th>
<th>SUBSYSTEM (2)</th>
<th>SUBSYSTEM (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>THRUPUT</td>
<td>CIV LABOR RATE</td>
<td>OTHER</td>
</tr>
</tbody>
</table>

EQUATION:

\[ \text{THRUPUT} = (\text{MTTO} \times \text{CIV LABOR RATE} \times \text{ANNUAL OPERATING HRS} / \text{MTBO}) \times \text{WEIGHTED \# UNITS} \times \text{\# OPERATING YRS} + \text{OTHER} \]

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

5.042 MATERIEL (OM)

VARIABLES
----------
SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPT = 
% UNIT MANUF $ = 
OTHER =

EQUATION:
- % UNIT MANUF $ * UNIT MANUF $
  * ((ANNUAL OPERATING HRS / MTBO)
  * WEIGHTED # UNITS * # OPERATING YRS + OTHER

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

5.043 MATERIEL (PROC)

VARIABLES

<table>
<thead>
<tr>
<th>SUBSYSTEM (1)</th>
<th>SUBSYSTEM (2)</th>
<th>SUBSYSTEM (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>THRUPT =</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% UNIT MANUF $=</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OTHER =</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

EQUATION:

\[
\% \text{ UNIT MANUF } \times \text{ UNIT MANUF } \times \left( \frac{\text{ANNUAL OPERATING HRS / MTBO}}{} \right) \times \text{WEIGHTED \# UNITS} \times \# \text{OPERATING YRS} + \text{OTHER}
\]

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

5.044 MAINT SUPPORT ACTIV

VARIABLES

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPUT -

EQUATION:
5.044 = THRUPUT

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
### VARIABLE INPUT SHEET

**5.05 FIELD MAINT CIV LAB**

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>SUBSYSTEM (1)</th>
<th>SUBSYSTEM (2)</th>
<th>SUBSYSTEM (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>THRUPUT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIV LABOR RATE$ PER HR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIV LABOR MTTR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIV LABOR MTTSM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MTBF</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>MTBSM</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>OTHER</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**EQUATION:**

\[
= \left( \frac{\text{CIV LABOR MTTR} \times \text{ANNUAL OPERATING HRS}}{\text{MTBF}} \right) + \left( \frac{\text{CIV LABOR MTTSM} \times \text{ANNUAL OPERATING HRS}}{\text{MTBSM}} \right) \times \text{CIV LABOR RATE$ PER HR} \times \text{WEIGHTED # UNITS} \times \text{# OPERATING YRS} + \text{OTHER}
\]

**DESCRIPTION OF HOW VALUES WERE DERIVED:**

**ASSUMPTIONS:**

**SOURCE:**
VARIABLE INPUT SHEET

5.06 TRANSPORTATION

VARIABLES

<table>
<thead>
<tr>
<th>SUBSYSTEM (1)</th>
<th>SUBSYSTEM (2)</th>
<th>SUBSYSTEM (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>THRUPUT =</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WEIGHTED SUM TRANSP $ =</td>
<td>WEIGHT OF SYSTEM =</td>
<td>OTHER =</td>
</tr>
</tbody>
</table>

EQUATION:

- \((\text{WEIGHTED SUM TRANSP} \times \text{WEIGHT OF SYSTEM} \times 2 \times 1.1 \text{ (PF)} \times (\frac{\text{ANNUAL OPERATING HRS}}{\text{MTBO}}) \times \text{WEIGHTED # UNITS} \times \# \text{OPERATING YRS} + \text{OTHER})\)

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>SUBSYSTEM (1)</th>
<th>SUBSYSTEM (2)</th>
<th>SUBSYSTEM (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>THRUPUT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WEIGHT SUM OF REPLACE $</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OTHER</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

EQUATION:

\[
\text{EQUATION: } \left( \frac{\text{MTTR} \times \text{ANNUAL OPERATING HRS}}{\text{MTBF}} / \text{ANNUAL MAINT HRS AVAIL} \right) + \left( \frac{\text{MTTSM} \times \text{ANNUAL OPERATING HRS}}{\text{MTBSM}} / \text{ANNUAL MAINT HRS AV} \right) + \left( \frac{\text{CREW MANYRS PER SYS} + \text{MAINT MANYRS PER SYS}}{\text{WEIGHTED SUM OF REPLACE $} \times \text{# OPERATING YRS}} \right)
\]

OTHER

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

5.072 SERVICES

VARIABLES

---------
| SUBSYSTEM (1) | SUBSYSTEM (2) | SUBSYSTEM (3) |

THRUPUT =

WEIGHT SUM OF REPLACE $ =

OTHER =

EQUATION:

= ((MTTR * ANNUAL OPERATING HRS / MTBF / ANNUAL MAINT HRS AVAIL) + (MTTSM * ANNUAL OPERATING HRS / MTBSM / ANNUAL MAINT HRS AV + CREW MANYRS PER SYS + MAINT MANYRS PER SYS) * WEIGHTED SUM OF REPLACE $ * # OPERATING YRS +

OTHER

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

5.081 CREW PAY & ALLOWANCE

VARIABLES

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPUT =

WEIGHTED SUM BASE P&A =
OTHER =

EQUATION:
= WEIGHTED SUM BASE P&A
* CREW MANYEARS PER SYS * # OPERATING YRS
+ OTHER

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

5.082 MAINT PAY & ALLOWANCES

VARIABLES

<table>
<thead>
<tr>
<th>SUBSYSTEM (1)</th>
<th>SUBSYSTEM (2)</th>
<th>SUBSYSTEM (3)</th>
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<tbody>
<tr>
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</tbody>
</table>

THRUPUT =

WEIGHTED SUM BASE P&A =

OTHER =

EQUATION:

WEIGHTED SUM BASE P&A
* ((MTTR * ANNUAL OPERATING HRS / MTBF
/ ANNUAL MAINT HRS AVAIL) + (MTTSM
* ANNUAL OPERATING HRS / MTBSM / ANNUAL MAINT HRS AV
+ MAINT MANYRS PER SYS) * # OPERATING YRS + OTHER

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

5.083 SYS SPEC SUPT P&A

VARIABLES

SUBSYSTEM (1)  SUBSYSTEM (2)  SUBSYSTEM (3)

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

5.084 TRAINEE/TRAINER P&A

VARIABLES

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPTUH =

WEIGHT SUM OF REPLACE $ =

OTHER =

EQUATION:

= ((MTTR * ANNUAL OPERATING HRS / MTBF / ANNUAL MAINT HRS AVAIL) + (MTTSM * ANNUAL OPERATING HRS / MTBSM / ANNUAL MAINT HRS AV + CREW MANYRS PER SYS + MAINT MANYRS PER SYS) * WEIGHTED SUM OF REPLACE $ * # OPERATING YRS +

OTHER

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

5.085 SYS/PROJ MGMT P&A

VARIABLES

-----

SUBSYSTEM (1)  SUBSYSTEM (2)  SUBSYSTEM (3)

THRUPUT =

MANYEARS =

MANYEAR $ =

OTHER =

EQUATION:

= MANYEARS * MANYEAR $ * # OPERATING YRS
+ OTHER

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

5.086 PERM CHG OF STA (PCS)

VARIABLES

--------
SUBSYSTEM (1)  SUBSYSTEM (2)  SUBSYSTEM (3)

THRUPUT =
WEIGHTED SUM OF PCS $ =
OTHER =

EQUATION:
- (((MTTR * ANNUAL OPERATING HRS / MTBF
  / ANNUAL MAINT HRS AVAIL) + (MTTSM
  * ANNUAL OPERATING HRS / MTBSM / ANNUAL MAINT HRS AVG
  + MAINT MANYRS PER SYS + CREW MANYRS PER SYS)
  * WEIGHTED SUM OF PCS $ * # OPERATING YRS + OTHER

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

5.087 OTHER MPA FUND SUST

VARIABLES

SUBSYSTEM (1)  SUBSYSTEM (2)  SUBSYSTEM (3)

THRUPUT =

EQUATION:

5.087 = THRUPUT

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

5.09 SYS/PROJ MGMT (CIV)

VARIABLES

SUBSYSTEM (1)  SUBSYSTEM (2)  SUBSYSTEM (3)

THRU PUT =

EQUATION:
5.09 = THRU PUT

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

5.10 MODIFICATIONS/KITS

VARIABLES

----------

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPUT =

EQUATION:
5.10 = THRUPUT

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

5.11 OTHER SUSTAINMENT

VARIABLES

----

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPUT =

EQUATION:
5.11 = THRUPUT

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
5.111 OTHER O&M FUND SUST

VARIABLES

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPUT =

WEIGHTED SUM OF QMU $ =

OTHER =

EQUATION:

\[ \text{WEIGHTED SUM OF QMU} = \left( \frac{\text{MTTR} \times \text{ANNUAL OPERATING HRS} / \text{MTBF}}{\text{ANNUAL MAINT HRS AVAIL}} + \frac{\text{MTTSM} \times \text{ANNUAL OPERATING HRS} / \text{MTBSM} / \text{ANNUAL MAINT HRS AV}}{\text{CREW MANYRS PER SYS} + \text{MAINT MANYRS PER SYS}} \right) \times \text{WEIGHTED SUM OF QMU} + \text{OTHER} \]

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
VARIABLE INPUT SHEET

5.112 OTHER PROC FUND SUST

VARIABLES

SUBSYSTEM (1) SUBSYSTEM (2) SUBSYSTEM (3)

THRUPUT =

EQUATION:

5.112 = THRUPUT

DESCRIPTION OF HOW VALUES WERE DERIVED:

ASSUMPTIONS:

SOURCE:
END
10-86
DTIC