UNRESOLVED INTERFACES ARE NOT IMPEDING PROGRAM PROGRESS

EXCLUDED FROM AUTOMATIC REGRADING; DOD DIR 5200.10

DOES NOT APPLY
DESIGN DEFINITION

PDR'S HELD

10

1 JAN 68

97

1 JAN 68

128

1 JUL 69

52

1 MAY 69

COMPLETE

CDR'S HELD

180*

1 JUL 69

* INCLUDES INCREMENTAL REVIEWS

V1746-6

AS OF

5 DEC 67

MOL PROGRAM

130

97

97

CONTROL SYSTEM ONLY
<table>
<thead>
<tr>
<th>PROGRAM</th>
<th>DRAWING RELEASES</th>
<th>AS OF</th>
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<tbody>
<tr>
<td>TEST DRAWINGS</td>
<td>368</td>
<td>1,095</td>
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<tr>
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<td>1 JAN 68</td>
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<tr>
<td>PRODUCTION DRAWING</td>
<td>654</td>
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<td>RELEASES</td>
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<tr>
<td>PRINTED CIRCUIT</td>
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<td>900</td>
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<tr>
<td>BOARDS</td>
<td>1 JAN 68</td>
<td>1 NOV 69</td>
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<tr>
<td>* DRAWING RELEASES</td>
<td>56</td>
<td>100</td>
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<tr>
<td>RESULTING BOARDS</td>
<td>6,500</td>
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<td>1 JAN 68</td>
<td>1 JUL 69</td>
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* INCLUDED IN PRODUCTION DRAWING DATA
DEVELOPMENT TEST
(GROUND TEST PLAN LINE ITEMS)

IN HOUSE
- RELEASED
  - 37
    - 1 JAN 68
    - 1 JUL 69
    - 1 JAN 70
  - 46
    - 175
    - 221

- COMPLETE
  - 10
    - 1 JAN 68
    - 1 JUL 69
    - 1 JUL 70
  - 81
    - 140
    - 221

VENDOR/MSK
- RELEASED
  - 5
    - 1 JAN 68
    - 1 JUL 69
    - 1 JAN 70
  - 11
    - 150
    - 212
- COMPLETE
  - 150
    - 212
    - 62
**TOOLING**

<table>
<thead>
<tr>
<th>MOL PROGRAM</th>
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<tbody>
<tr>
<td>MAJOR TOOLING</td>
<td>241 306 803</td>
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<td>1 JAN 68 1 JUL 69</td>
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<tr>
<td>MINOR TOOLING</td>
<td>895 2,600</td>
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<td></td>
<td>1 JAN 68 1 JUL 69</td>
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</table>

* LARGE DESIGNED TOOLING, INCLUDING PRODUCTION TEST EQUIPMENT AND 3 ASSEMBLY AND CHECKOUT TOWERS
<table>
<thead>
<tr>
<th>MOL PROGRAM</th>
<th>MATERIAL</th>
<th>AS OF 5 DEC-67</th>
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<tbody>
<tr>
<td>ENGINEERING RELEASE OF AUTHORITY TO BUY</td>
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<tr>
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<td>PURCHASE ORDERS PLACED</td>
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<td>3,543</td>
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<td>VALUE OF PURCHASE ORDERS PLACED (MILLIONS OF $)</td>
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<td>VALUE OF MATERIAL RECEIVED (MILLIONS OF $)</td>
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# PRODUCTION COMPLETIONS

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<thead>
<tr>
<th>MOE PROGRAM</th>
<th>AS OF 5 DEC 67</th>
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<tbody>
<tr>
<td>AVE</td>
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</tr>
<tr>
<td>1 JAN 68</td>
<td>1 JUL 69</td>
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<tr>
<td>(1) 30</td>
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<td>1 SEP 72</td>
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<td>AGE</td>
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<tr>
<td>1 JAN 68</td>
<td>1 JUL 69</td>
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<tr>
<td>141</td>
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<td>1 JUN 72</td>
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<td>MISSION SIMULATOR</td>
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<td>(1)</td>
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<td>3</td>
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<tr>
<td>1 APR 70</td>
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<td>SOFTWARE</td>
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<tr>
<td>1 JAN 68</td>
<td>1 JUL 69</td>
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<td>7</td>
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<tr>
<td>1 AUG 70</td>
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<tr>
<td>SUBSTITUTES</td>
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<tr>
<td>3</td>
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</tr>
<tr>
<td>7</td>
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<tr>
<td>1 JAN 68</td>
<td>1 JUL 69</td>
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<tr>
<td>1 JAN 71</td>
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</tr>
<tr>
<td>MAJOR TEST ITEMS</td>
<td></td>
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<tr>
<td>9</td>
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</tr>
<tr>
<td>3</td>
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</tr>
<tr>
<td>1 JUL 69</td>
<td>1 JAN 71</td>
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**NRO APPROVED FOR RELEASE 1 JUL 69**

**SECRET**

**HANDLE VIA BYEYMAN CONTROL SYSTEM ONLY**

**V1747-5**
<table>
<thead>
<tr>
<th>MOL</th>
<th>SUBCONTRACTOR DEVELOPMENT PROGRAM</th>
</tr>
</thead>
</table>
| MQDT | • DEMONSTRATION TESTS IN PROGRESS  
      • EVALUATION TEST - SPECIMENS 80 PERCENT COMPLETE  
      • QUALIFICATION TEST - MATERIAL ORDERED - 50 PERCENT PARTS RELEASED  
      • EDCTU AND SACTO - DESIGN COMPLETE - IN FABRICATION AND ASSEMBLY |
| IBM  | • DRAWINGS 95 PERCENT COMPLETE  
      • COMPONENT TEST SPECIMENS 90 PERCENT  
      • COMPONENT TESTS 80 PERCENT  
      • SUBSYSTEM INTEGRATION AND TEST 20 PERCENT |
| CRC  | • BREADBOARDS - DESIGN - FABRICATION - TEST COMPLETE  
      • BRASSBOARDS - DESIGN COMPLETE - FABRICATION IN PROGRESS - TEST START 15 JAN 68  
      • DEVELOPMENT - DESIGN 90 PERCENT COMPLETE - FABRICATION IN PROGRESS - TEST START 15 MAY 68 |
| HAM STD | • DESIGN - 90 PERCENT COMPLETE  
         • DEVELOPMENT HARDWARE 60 PERCENT COMPLETE  
         • DEVELOPMENT TEST - SEP 67 - SEP 68  
         • TEST COMPLETED - MOLECULAR SIEVE HEAT EXCHANGER |
POWERPLANT LIFE EVALUATION

Mission:
1000 hours

Average Load:

- Base Line: 107 kW
- HITL: 91 kW

Load Time:

Interface Voltage:

- Base Line: 34 V
- HITL: 30 V

KW/HR:

- Base Line: 1195
- HITL: 91
<table>
<thead>
<tr>
<th>MOL PROGRAM</th>
<th>SUBCONTRACTOR DEVELOPMENT PROGRAM (CONT)</th>
<th>AS OF 5 DEC 67</th>
</tr>
</thead>
<tbody>
<tr>
<td>P&amp;W</td>
<td>DEVELOPMENT PROGRAM (PERCENT COMPLETE)</td>
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</tr>
<tr>
<td></td>
<td>CELLS, MULTICELLS, POWER SECTIONS - 80 PERCENT</td>
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<tr>
<td></td>
<td>FUEL CELL POWER PLANT - 60 PERCENT</td>
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<tr>
<td></td>
<td>COMPONENTS - 70 PERCENT</td>
<td></td>
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<tr>
<td></td>
<td>2 FUEL CELL POWER PLANTS EXCEEDED MISSION LIFE REQUIREMENTS ONE TEST CONTINUING</td>
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</tr>
<tr>
<td></td>
<td>COMPLETED 5 MULTICELL MISSION LIFE TESTS</td>
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<tr>
<td>FAIRCHILD</td>
<td>ZERO &quot;G&quot; FLIGHT TEST HARDWARE DELIVERED TO WRIGHT-PATTERSON AFB</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ZERO &quot;G&quot; TESTING 20 NOV 67 - 16 FEB 68</td>
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<tr>
<td></td>
<td>URINE COLLECTION TESTS COMPLETED</td>
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<tr>
<td></td>
<td>FECES COLLECTION AND URINE VOLUME DETERMINATION TESTS CONTINUING</td>
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<tr>
<td></td>
<td>PRODUCTION DRAWING RELEASE - 28 PERCENT RELEASED</td>
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<tr>
<td>AI RESEARCH</td>
<td>DESIGN 70 PERCENT COMPLETE</td>
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<td>BREADBOARD TESTS 60 PERCENT COMPLETE</td>
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<td>DEVELOPMENT TESTS (DOUGLAS GTP) START MAR 68 - SEP 68</td>
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<tr>
<td>HONEYWELL</td>
<td>BREADBOARD DESIGN AND FABRICATION COMPLETE - TEST 75 PERCENT COMPLETE</td>
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<td>EDU NO. 1 - STATIC TESTS JAN 68 - JUL 68</td>
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<td>EMI TESTS MAR 68 - MAY 68</td>
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<td>AIR BEARING TABLE TESTS SEP 68 - DEC 68</td>
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<td>EDU NO. 2 ASSEMBLY DEVELOPMENT TESTS MAR 68 - AUG 68</td>
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<tr>
<td></td>
<td>AGE DESIGN COMPLETE - FABRICATION IN PROGRESS</td>
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</tbody>
</table>
FINANCIAL ANALYSIS

AS OF
26 NOV 67

- ACTUALS AS OF 26 NOV 67
- EAC FROM OCT 67 CPCs

NOVEMBER PVWA REPORT
PERFORMANCE TO DATE
- OVER 96%

MATERIAL
TOOLING
REQUIREMENTS COORDINATION
MFG
MSK AND CSK
DESIGN AND DEVELOPMENT QUALIFICATION TEST

SECRET
HANDLE VIA BYEMAN
CONTROL SYSTEM ONLY
DIRECT TECHNICAL

<table>
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<th>MOL PROGRAM</th>
<th>AS OF 7 DEC 67</th>
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</table>

EQUIVALENT HEADCOUNT

ACTUALS

12C

12 + 8

J F M A M J J A S O N D J F M A M J

**DOUGLAS FUNDING REQUIREMENTS -- 12 + 8 SCHEDULE**

12-7-67

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<th>NOA FY 1969</th>
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<td>FUNDING REQUIREMENTS</td>
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<td>MANAGEABLE ADJUSTMENT</td>
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