Monthly Progress Report
28 January - 24 February 1962

CONDENSER HEAT REJECTION SYSTEMS

Prepared for

Technical Director
Office of Space Flight Programs
National Aeronautics and Space Administration

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1. SUMMARY

During the past reporting period, investigations of large diameter jet condensers were continued. Analysis of the data obtained for the initial test unit (cf EOS Report 1588-ML-13) and testing of a similar geometry without the constant area throat were conducted. Large diameter jet condenser testing will be resumed after completion of a current series of calibrations of flow, temperature, and pressure instrumentation.

The flow distribution characteristics of the multi-tube jet condenser vapor header were investigated with air. The maximum measured deviation (6 percent) of individual tube flow rates from the mean flow rate was approximately equal to the maximum uncertainty associated with the measuring apparatus. Installation of the unit will, therefore, proceed upon completion of large diameter jet condenser testing.

2. LABOR HOURS

During the period 28 January 1962 to 24 February 1962 a total of 667.75 labor hours were expended.

3. FUTURE EFFORT

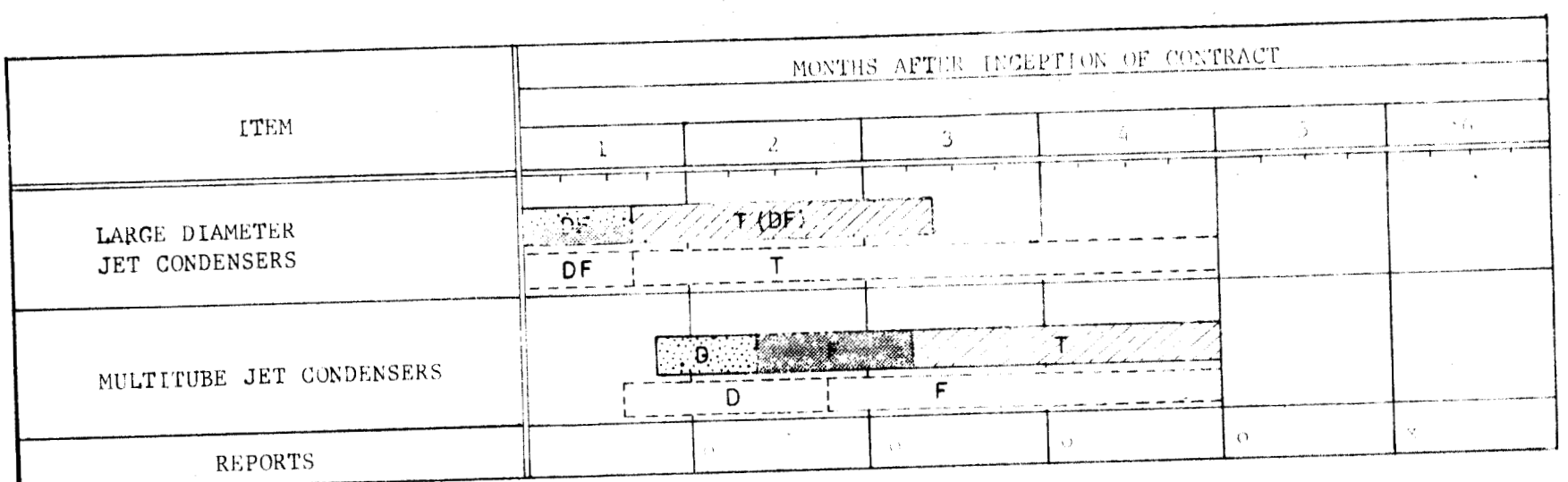
During the next reporting period the following progress is planned:

a. Continued testing of large diameter jet condensers

b. Initial multi-tube jet condenser testing

c. Analysis.

Figure 1 furnishes a comparison of technical effort estimated at the inception of the four month extension with that actually expended.



D - Design

F - Fabrication

T - Testing

D,F,T

FIG. 1 ESTIMATED TIME SCHEDULE