

1812
September 11, 1972

SMEAT DAILY REPORT

Number 33

This report covers the period from 0800 September 8, 1972, through 0800 September 11, 1972 (test days 45, 46, and 47).

I. Significant Accomplishments - During this reporting period, SMEAT activities were at a low level and all DTO activity was accomplished on schedule. One of the crewmen started the use of the OWS urine contingency system. He will use this system for the balance of the SMEAT test. A special M171 metabolic activity test was performed to determine the effects of varying composition of the chamber gas on the M171 data. In this test, chamber nitrogen composition was varied from 22 to 23 1/2% at increments of 1/2% every 10 minutes. The subject worked at a fixed rate of 150 watts. It was found that the respiratory quotient varied from 1.2 to 0.8 and that oxygen consumption varied from 2.1 to 3.6 leaders per minute. This test has proven conclusively that a variation in OWS gas consumption can buy us the M171 data. The crew initiated a series of EEG electrode paste patch tests to further evaluate allergic reactions to the paste. The Commander experienced a reaction after wearing the patch for 16 hours. Additional testing is scheduled to provide more information on this allergic reaction. During the course of the SMEAT test, the crew has continually reported that the automatic blood pressure system readings are higher than the manual clinical blood pressure cuff system. The crew reports that this is varied from 5 millimeters to as much as 30 millimeters. It has been determined that a series of sound pressure measurements should be made with the clinical cuff at 1/3 of an atmosphere to determine if the stethoscope sounds could be influenced by this reduced pressure. These tests are scheduled for Tuesday, September 12, 1972. The failed M133 sleep unit is still under failure analysis.

II. Problems

A. Hardware

The crew reported that one beverage pack did not have a spring-loaded valve (The Director of Life Sciences is planning to visit Whirlpool on Friday, September 15, 1972, to discuss with senior management personnel the food system failures and the impact on the Skylab Program.)

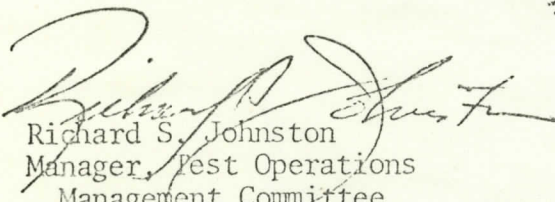
B. Facility - None

C. Procedural - None

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III. Medical

The mission surgeon reports that the crew remains in excellent health.


Richard S. Johnston
Manager, Pest Operations
Management Committee