

Crew  
August 24, 1972

SMEAT DAILY REPORT

Number 23

This report covers the period from 0800 August 23, 1972 to 0800 August 24, 1972 (test day 29).

I. Significant Accomplishments - The crew continues to maintain the flight timeline schedule of activities.

II. Problems

A. Hardware

1. The crew reported that the OWS urine centrifuge motor was not turning at a high enough speed. The urine system is being passed out of the chamber and a backup unit installed.

2. The IMSS slide stainer has previously been reported as a problem area and alternate procedures are being worked out with Astronaut Thornton to continue this evaluation.

3. The crew reported that the OWS urine filter had corroded and could not be removed by hand per existing procedures. They recommended a special tool be developed to aid in the removal of this filter.

4. The OWS urine system pooling bag was found to have been cut during the installation. This is a recurring problem.

5. The crew reported that the revised M487 questionnaire is inadequate and does not permit personal comments to be recorded on habitability.

B. Facility - None

C. Procedural - None

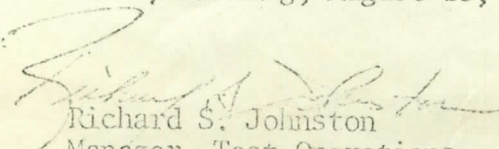
III. Planned Activities

1. A special series of tests are scheduled for the M171 metabolic activity experiment. The first test will entail the use of standard lab Douglas bags to be used to verify the respiratory quotient data obtained from the metabolic analyzer. Second, a device is being passed into the chamber to verify the vital capacity data from the metabolic analyzer. Third, the facility nitrogen and oxygen composition is being stabilized to within  $\pm 1/10\%$  to verify the effect of a varying nitrogen composition on the metabolic analyzer data.

2. New vacuum cleaner bags per the Apollo vacuum cleaner design have been fabricated for the Skylab vacuum cleaner for evaluation by the crew.

3. All SMEAT PI's for the medical experiments and DIO's have been requested to make an evaluation of the accomplishment of their stated experiment objectives, to establish additional testing required for the balance of the SMEAT test, and to clearly define any constraints which might exist for the early termination of the SMEAT test. This information has been requested by Friday, August 25, 1972, for subsequent review with Dr. Kraft on Tuesday, August 29, 1972. Any decision to terminate the test early will be discussed with cognizant individuals in NASA Headquarters.

4. The evaluation of elevated temperatures in the chamber is proceeding smoothly. The chamber air temperature is now at 77°F and will be maintained at that level for the M171 run. A determination on extending this elevated temperature comfort evaluation will be made on Friday morning, August 25, 1972.

  
Richard S. Johnston  
Manager, Test Operations  
Management Committee