

Crew  
September 18, 1972

SMEAT DAILY REPORT

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Number 38

This report covers the period from 0800 September 15, 1972, through 0800 September 18, 1972 (test days 52, 53, and 54).

I. Significant Accomplishments - Chamber activities for the last 3 days proceeded on schedule. Three M171 metabolic activity protocols and three M092 tests were successfully completed. Special testing was accomplished as previously reported with the M171 experiment. In the first of these tests, special calibration gases were used to recalibrate the metabolic analyzer mass spectrometer. It was found that the mass spectrometer varied from 20 to 28% from the calibrated gases. Based on these calibration errors, the crew made gain adjustments to the metabolic analyzer and for the last normal 171 run, the data obtained compared very favorably with standard calibration data. For example, the respiratory quotient and oxygen consumption data was very close to the Douglas bag test.

II. Problems

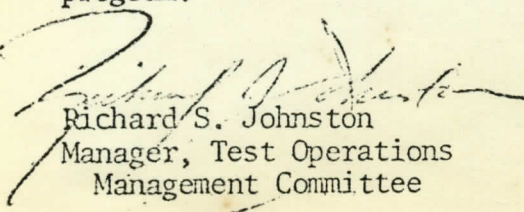
A. Hardware

No new major problems reported during this period.

B. Facility - None

C. Procedural - None

III. Planning for the posttest activities is progressing smoothly and all facility and other resources are available to finish the SMEAT program.

  
Richard S. Johnston  
Manager, Test Operations  
Management Committee

MISSION DAY: 52  
DAY OF YEAR: 259/260  
DATE: September 15, 1972  
START TIME: 260:01:33  
STOP TIME: 260:01:40

CREW

This is the SMEAT evening report. CDR: exercise 171, only a special run; weight, 156-3/4; water gun, 2061. No deviations; four salt packets added. SPT: 9,246 watts so far; weight, 195; water gun, 4079. The exercise was 38 minutes and 225 watt minutes, on the Monarch and 696 on the Skylab for arms. No additions or deviations on the diet. PLT: 6,500 watt minutes about 50 watts on the arms on the ergometer, 37 minutes on the Skylab ergometer and the Monarch; weight, 186; water gun, 1117; no deviations or additions to the diet.

SMMD Log for day 259: Tango Foxtrot, Foxtrot Delta, 1755; time; 0600; temperature, 74° F. Readout: 222, 577, 52, 53, 44, 222, 546. Charlie Foxtrot, Foxtrot Delta: [number apparently omitted]; 1300, time; temperature, 74° F; 230, 445, 428, 432, 429, 230, 422. Tango Foxtrot, Foxtrot Delta, 1753; time, 1840; temperature, 74° F. Readout: 228, 328, 12, 15, 298, 228, 288. There were approximately 11 wipes used on that one. Bravo Foxtrot, Foxtrot Delta, 1752; time, 1945; temperature, 74° F. Readout: 230, 331, 316, 315, 308, 230, 298. The VDR reading was a spill last evening. Voids: CDR, 8; SPT, 9; PLT, 6. No CO, CO<sub>2</sub>, 10 percent volumes, or M133 readings.



Additional comments are: 1. On the contingency urine system: The pressure plate falls part way down because of some back pressure problems. However, not all the back pressure is caused by this, for there are times when the bags are not beneath the plate, but there is considerable pressure. One cuff assembly refused to pass urine today and this item will be sent out tomorrow morning for examination.

2. Just about on schedule; we ran out of the original supply of wipes today. We are now starting on the additional ones passed in. 3. The seventh major urine spill occurred from a weak spot in the old type bag. It operated normally and gave normal indications all day, and seperated late last evening. It made the usual mess, requiring approximately 12 undershirts, 2 wash cloths, one towel, one ordinary shirt, and 55 minutes of time to clean up. Since there are no new bags available, unless some one has a special reason for continuing, Skylab UVMS will be discontinued.

DBS

4. The ~~SES~~ [sic] was used by the SPT today and there was difficulty in obtaining an EKG signal, as there had been the previous day. This is an immensely complex arrangement to a simple job — with almost a dozen tiny and otherwise screw on connectors. An inchamber connector was supported

only by potting compound which has pulled out, leaving only the wires now for support. Apparently we finally got a signal through.

5. The audiometric measurement today had several difficulties, including the old microphonic back again on the right ear, and the inability to control level at times. The speech intelligibility-level was markedly reduced for the CDR and SPT. This data should not be used. We are willing to rerun it. The PLT sounded normal and quite a bit above the SPT's and CDR's level. The CO<sub>2</sub> monitor was passed back in again today. It exhibits at very, very slow response time. I would estimate it's 10 to 90 percent response time, on the order of 30 minutes. Also it was indicating it either has an extremely slow response time on temperature, a matter of hours probably, or else it is 2° off in temperature. It is a bit difficult to see how this item is going to be very useful.

And that concludes the evening report.



MISSION DAY: 53  
DAY OF YEAR: 260/261  
DATE: September 16, 1972  
START TIME: 261:01:32  
STOP TIME: 261:01:40

CREW

This is the SMEAT evening report for day 260. Crippen: exercise, 6,000 watt minutes; that was 40 minutes on the ergometer; weight, 156.0; water gun reading, 2066; an additional one ounce of water was consumed; 2 salt packets were consumed. Thornton: exercise, 1500 watt minutes; that was ~~75 minutes~~ at 200 watts on the Monarch ergometer. Weight, 194-1/4; water gun, 4121. Bobko: no exercise today, SOHA; weight, 185-1/4; water gun, 1121; no additions or deletions.

SMMD log for today: 1. Tango Foxtrot, Foxtrot Delta, 1751; time, 0250; temperature, 75° F; readouts: 222, 898, 878, 874, 228, 78, 222, 901. There were nine wipes used with that item.

2. Charlie Foxtrot, Foxtrot Charlie, 1517; time, 1400; temperature, 73° F; SMMD readouts: 233, 140, 123, 131, 098, 233, 116.

3. Tango Foxtrot, Foxtrot Charlie, 1516; time, 1830; temperature, 75° F; readouts as follows: 225, 070, 056, 059, 051, 225, 056.

VDR is no longer applicable. Voids: Crippin, 6;  
Thornton, 8; Bobko, 8.

An additional comment that may be required for clarification on the menu logs. Quite some time ago we made the substitution of always having potato soup and biscuits in place of pea soup. So we're not submitting that as a change in the diet.

M133 log: For Thornton; day 260; sleep less than 6.0 hours good sleep, sleep code 1. For Bobko: day 260; sleep, 7.9 hours good sleep. Remarks: He used the second cap. The first one would not give good indications on electrodes C1 and C2.

Log comments for today, day 260. 1. Data errors: the latest plots received still show many omissions of food items on the SPT diet. Some are omitted entirely, while others appear to be partial omissions. We give a list as follows and I'd like to note that some of these items have previously been reported as missing from the data and apparently they have not been picked up again. I'll read the day and the new addition. Day 210, sugar cookie 90 and 91; day 229, one sugar cookie, number not available, and two mints; day 230, one mint;



day 231, sugar cookie number 26, and two mints; day 232, sugar cookie can number 54, 55, 56, and one mint; day 233, sugar cookie number 53 and one mint; day 234, 2 mints; day 235, sugar cookie number 134 and 2 mints; 236, sugar cookie 140, 137 and one mint; 238, sugar cookie number 98 and one mint; day 239, sugar cookie, 147 and 139 and one mint; day 242, sugar cookie, 141 and 143, and 2 mints; day 250, three mints; day 251, three mints; day 252, two mints.

2. As previously reported during the M133 logs; the pilot used 2 M133 caps; the first would not check out properly and that electrodes C1 and C2 would not light together. It appeared that the difficulty was probably in the connection between the preamp and the hasp [sic] because this connection could be wiggled and one or the other light could be caused to go out or come on.
3. As has been reported in the two previous weekly reports we ran out of polyethylene glycol this evening, but more in this evenings pass in. Thank you Rita, we knew you wouldn't let us down. This concludes the evening report.

MISSION DAY: 54  
DAY OF YEAR: 261/262  
DATE: September 17, 1972  
START TIME: 262:01:30  
STOP TIME: 262:01:35

CREW This is the SMEAT evening report. Crippen: exercise, M171; weight, 156; water gun, 2066; no omissions or deviations, or partial consumptions; one salt packet consumed. Thornton: an additional 15,000 watt minutes should be added to yesterday's exercise; weight, 193-1/4; water gun, 4193. Additions: 2 sugar cookies, cans number 107 and 108. Another addition on yesterday's menu, there were an additional 2 sugar cookies added. Those were sugar cookie numbers 106 and 119. A second addition to Thornton's menu is that today there was 1 mint. To recap; yesterday, on Thornton's there was an additional 15000 watt minutes of exercise and sugar cookies 106 and 119. Today there were 2 sugar cookies number 108 and 107, and 1 mint. Bobko: M171 plus 5400 watts on the Monarch ergometer; weight, 185-1/4; water gun, 1124; no additions or deviations, and no salt. SMD log: Charlie Foxtrot, Foxtrot Charlie, 1515; 1500 Zulu; 74° F; 228, 406, 393, 384, 387, 228, 386. Bravo Foxtrot, Foxtrot Charlie, 1514; 1755 Zulu; 74° F; 241, 363, 340, 328, 318, 241, 334. Tango Foxtrot, Foxtrot Charlie, 151; 1825 Zulu; 74° F; 225, 818, 795, 782, 772, 225, 763. Seven wipes were used.



Voids: Crippen, 6; Thornton, 9; Bobko, 7. No CO or CO<sub>2</sub> monitor readings.

M133: Thornton, day 261; less than 6 hours. That was good sleep. Bobko, day 261; an estimated 7 hours of fair sleep. Number 1, and awakened a couple of times.

No VDR readings.

The comments for today: concerning test completion, the crew would like to know if there are to be any special actions to be accomplished before they leave the chamber, especially since the chamber will be brought to 1/2 psi. As an example, should any of the beverage or food containers be passed out from the chamber?

M133: the pilot had some difficulty in getting both the C1 and C2 lights to flash on during the preuse test in M133. A new preamp was tried and the lights operated satisfactorily. That concludes the SMEAT evening report.