

## Medical Experiment M133 - Sleep Monitoring

### Skylab 2 Protocol

#### Background and Justification

Skylab Medical Experiment M133 - Sleep Monitoring is an approved Skylab medical experiment with the objective of evaluating sleep quality and quality during prolonged space flight. No such data presently exists, and it is essential both from the standpoint of crew health and performance that such information be collected and analyzed prior to a 56-day mission.

#### Experiment Protocol

1. Option I - CSM only (16 days)

No M133 experiment would be conducted. However, daily voice reports are required from each crewmember giving an estimate of sleep period length and a subjective evaluation of sleep quality.

2. Option ~~II~~<sup>I</sup> - CSM only with ~~one~~ visits to OWS.

During the visit to the OWS the crewman will remove to the MDA/CSM the M133 sleep monitoring system and associated accessories for installing and conducting the experiment in the ~~CSM~~<sup>MDA</sup> for the balance of the mission. As neither the electrical power requirements nor the demand upon crew time are appreciably effected by this experiment, the nominal 28-day mission schedule of experiment runs shall be picked up and continued as of the day that the experiment equipment is retrieved and set up in the MDA/CSM sleep area.

The nominal 28-day mission schedule is as follows:

M133 shall be run on mission days 3, 4, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 24, 25, 26.

3. Option III - CSM with one 6 - 12 hours visit to OWS  
(shirtsleeve) ~~OR SEVERAL SORTIES~~

~~M133 will be conducted as in Option II.~~

4. Option ~~II~~ - OWS with limited power

M133 will be conducted as originally scheduled with the experiment runs picked up and continued as of the day the OWS is activated and inhabited.

CSM Launch and Return Stowage

CSM launch and return stowage is the same as for a nominal 28-day mission for all options except Option I. No stowage is required for Option I.

OWS Transfer List for Option II & III

The following items will be removed from the OWS and taken to the CSM/MDA:

- |      |                                |
|------|--------------------------------|
| S190 | High power cable               |
| E624 | #1 Phillips screwdriver (1B)   |
| E623 | Adhesive tape (2A)             |
| F578 | M133 Panel assembly            |
| S913 | M133 Power cable and SIA cable |
|      | M133 Rucksack                  |
|      | Tape return canister           |
| F521 | M133 Tape canister bag         |

No TEMPERATURE CONSTRAINT ON M133.