Thornton

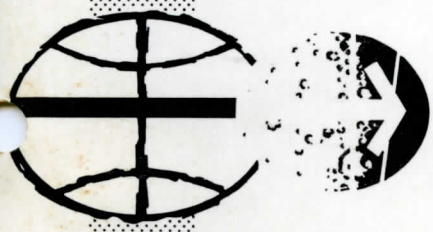
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

PRELIMINARY

SMEAT MEDICAL CHECKLIST

(M074, M112-M115, M133, M487, T003)

EVA/IVA PROCEDURES BRANCH
CREW PROCEDURES DIVISION



MANNED SPACECRAFT CENTER
HOUSTON, TEXAS

MARCH 21, 1972

SMEAT MEDICAL
CHECKLIST
M074, M112-115, M133, M487, T003

MARCH 21, 1972

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SMEAT
Medical Experiments Checklists
M074, M112-115, M133, M487, T003

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(M133)

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SPECIMEN MASS MEASUREMENT DEVICE PREPARATION

613

1. cb EXPERIMENTS WMC SMMD - close (up) (verify)
2. Obtain long 3/16 Allen wrench and handle from tool kit
3. Open cabinet - verify SMMD control lever in LOCK position
4. Release tie down sheet - press down and outward
5. CAM LOCK/CAM UNLOCK - CAM UNLOCK (1/2 turn CCW with Allen wrench)
6. MASS/OFF/TEMP - TEMP
7. RESET - press
8. Temp readout - verify (non-zero reading)
9. MASS/OFF/TEMP - MASS
10. RESET - press
11. Control lever - RELEASE (hold for 10 sec)
12. Control lever - LOCK
13. Digital readout - verify (non-zero reading)
14. MASS/OFF/TEMP - OFF
15. Return Allen wrench and handle to tool box

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SPECIMEN MASS MEASUREMENT DEVICE - CALIBRATION

W742

1. Obtain Medical Experiments Log
2. Control lever - LOCK (verify)
3. CAM LOCK/CAM UNLOCK - CAM UNLOCK (verify)
4. MASS/OFF/TEMP - TEMP
5. RESET - press
6. Record reading
7. MASS/OFF/TEMP - MASS
8. RESET - press
9. Control lever - RELEASE (hold for 10 sec)
10. Control lever - LOCK
11. Record reading
12. Repeat steps 8 thru 11 for total of five measurements
13. Compare the readings for repeatability. The span of 4 out of 5 readings should be less than 20 counts
    For example: 2.32451
    2.32455
    2.32442
    2.32437
    2.32430
    If sufficient repeatability of readings was not obtained, repeat the series of measurements

M074 CALIB

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14 Release tie down sheet and place 50 gram calibration mass in recess on center of tray

15 Latch tie down sheet and repeat steps 8 thru 13

16 Unlatch tie down sheet and add 100 gram mass on top of 50 gram mass

17 Latch tie down sheet and repeat steps 8 thru 13

18 Unlatch tie down sheet and add 250 gram mass on top of 100 and 50 gram masses

19 Latch tie down sheet and repeat steps 8 thru 13 for total of five measurements

20 Unlatch tie down sheet and remove 250, 100 and 50 gram masses from tray and place in cabinet

CAUTION: DO NOT PLACE MORE THAN 500 GRAMS ON TRAY

21 Place 500 gram mass in center of tray, latch tie down sheet and repeat steps 8 thru 13

22 Unlatch tie down sheet and remove 500 gram mass from tray and stow on knurled calib post - then replace 250, 100 and 50 gram masses on post in that order

23 Latch tie down sheet and repeat steps 8 thru 13

24 MASS/OFF/TEMP - TEMP

25 RESET - press

26 Record reading

27 MASS/OFF/TEMP - OFF

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SPECIMEN MASS MEASUREMENT DEVICE - PERFORMANCE

1 CAM LOCK/CAM UNLOCK - CAM UNLOCK (Verify)

2 Control lever - LOCK (Verify)

3 Release tie down sheet

4 Place specimen against tray, relatch tie down sheet

5 MASS/OFF/TEMP - TEMP

6 RESET - press

7 Record reading

8 MASS/OFF/TEMP - MASS

9 RESET - press

10 Control lever - RELEASE (hold until display stops counting)

11 Control lever - LOCK

12 Record reading

13 Repeat steps 8 thru 11 for total of five readings

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M074 PERFORMANCE

14 Compare readings for repeatability
The span of 4 out of 5 readings should be less than 100 counts
For example:
6.32451
6.32539 - (highest reading)
6.32482
6.32492
6.32429 - (lowest reading)

Note this series exhibits acceptacle repeatability in 4 out of 5 readings

15 MASS/OFF/TEMP - TEMP

16 RESET - press

17 Record reading

18 MASS/OFF/TEMP - TEMP

19 Control lever - LOCK (Verify)

20 Obtain wet wipe, unlatch tie down sheet, clean tray and sheet, relatch sheet

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SPECIMEN MASS MEASUREMENT DEVICE - STOWAGE

E624	1	Obtain long 3/16 Allen wrench and handle from tool box
	2	Open cabinet - verify control lever in LOCK position
	3	CAM LOCK/CAM UNLOCK - CAM LOCK (1/2 turn CW with Allen wrench)
E624	4	Return long 3/16 Allen wrench and handle to tool box

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M112 - M115

TBS

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EXPERIMENT EQUIPMENT PREPARATION

D418 Obtain high power cable

551 Connect high power cable to HI POWER ACCESSORY OUTLET, 5 or 6

Thread high power cable thru floor grid and penetration in sleep station 1 light baffle

F578 Release three fasteners holding M133 panel launch stowage bracket top frame

F578 Remove M133 panel assembly from launch stowage bracket

Secure stowage bracket top frame to base

Move M133 panel assembly to sleep station1

904 cb EXP PWR - open (down) (verify)

ELECTRODE SELECT - OFF (verify)

TAPE RECORDER - 1 (verify)

SLEEP STA 1 Attach M133 panel assembly to dovetail fixture face toward bulkhead

S913 Obtain M133 power cable and SIA cable

Connect power cable to J5 and SIA cable to J3 on panel assembly

E624 Using Phillips screwdriver, engage recorder pinch roller on tape recorder 1 (outer recorder)

M133 PREP

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SLEEP Remove M133 panel assembly from dove-
STA 1 tail fixture, reverse and install (face outward)

Connect high power cable to M133 power cable

901 Connect SIA cable to CHAN B connector on SIA

904 cb EXP PWR - CLOSE (up)

DATE_____

EXPERIMENT OPERATION

S913 Obtain cap, preamp-accel assembly and chin strap.

SLEEP STA 1 Using scissors, remove tips from electrodes. Dispose of tips and cap bag in trash container

S913 Connect preamp-accel assembly to cap

SLEEP STA 1 Don cap, secure using chin strap

Enter sleep restraint

Connect preamp-accel cable to CAP UMB receptacle on panel

904 SUBJECT GAIN - predetermined position

cb EXP PWR - close (up) (verify)

ELECTRODE SELECT - TEST

ELECTRODE STATUS (6 indicators) - lighted

Note: If either EEG channel can not be lighted by rocking the appropriate electrodes obtain new cap

904 ELECTRODE SELECT - LEFT EEG

TAPE RECORDER -1 (verify)

The subject may begin sleep period

Note: If necessary to exit sleep station before sleep period is complete, turn ELECTRODE SELECT - OFF and disconnect preamp-accel cable from panel. Upon return, reconnect cable and check electrode status before resumming recording and sleep.

The following steps are performed upon awaking.

ELECTRODE SELECT - TEST

ELECTRODE STATUS (6 indicators) - lighted

Note: If any ELECTRODE STATUS indicators are not lighted, note in experiment logbook.

ELECTRODE SELECT - OFF

SLEEP STA 1 Remove cap

Remove preamp-accel assembly from cap and disconnect preamp-accl cable from the panel

S913 Place preamp-accl assembly and chin strap in stowage cabinet

S190 Dispose of cap

SLEEP STA 1 Using wipes, remove any electrolyte remaining in hair

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POST OPERATION ACTIVITIES

904 cb EXP PWR - open (down)

SLEEP STA 1 Remove panel assembly from mount

Reverse panel assembly and replace on dovetail fixture (face toward bulkhead)

Remove outer recorder from panel assembly

E624 Obtain #2 Phillips screwdriver

SLEEP STA 1 Using Phillips screwdriver, disengage the pinch roller

Using Phillips screwdriver, loosen six screws securing recorder cover and remove cover

Using Phillips screwdriver, press reel hubs and remove both reels

S913 Obtain tape return canister

SLEEP STA 1 Remove new reels from tape return canister

Place old reels in tape return canister

Note: Use care not to deform or twist tape. Refer to recorder cover diagram for supply and takeup reel locations and tape path.

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M133 POST OPER

SLEEP Using Phillips screwdriver to press the
STA 1 reel hub, install supply and takeup reels in recorder

Thread tape thru recorder tape path

Place cover on recorder and secure six retaining screws

Replace tape recorder on panel assembly

Remove panel assembly from mount

Reverse panel assembly and replace on dovetail mount (face outward)

M487

TBS

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T003 AEROSOL ANALYSIS

DAILY MEASUREMENT

1 Remove AEROSOL ANALYZER from locker 613
Replace data card if card has less than 7 blanks

2 Translate to EXPERIMENT COMP near wardroom wall

3 Set filter - impactor dial to position #1

4 Record GMT and filter position
Hold INLET port near ceiling and perpendicular to longitudinal axis

INITIATE CYCLE button - push

Observe PILOT OVERFLOW light - off after 70 seconds

Record CHANNEL COUNT - #1
Record CHANNEL COUNT - #2
Record CHANNEL COUNT - #3

5 Stow AEROSOL ANALYZER IN LOCKER 613

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T003 AEROSOL ANALYSIS DAILY MEASUREMENT

T003 AEROSOL
ANALYSIS DAILY
MEASUREMENT

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10 DAY MEASUREMENTS

1 Remove AEROSOL ANALYZER from locker 613
Replace data card if card has less than 7 blanks

2 Translate to EXPERIMENT COMP near wardroom wall

3 Set filter - impactor dial to position #1

4 Record GMT and filter position
Hold INLET port near ceiling and perpendicular to longitudinal axis

INITIATE CYCLE button - push

Observe PILOT OVERFLOW light - off after 70 seconds

Record CHANNEL COUNT - #1
Record CHANNEL COUNT - #2
Record CHANNEL COUNT - #3

5 Translate to EXPERIMENT COMP near LBNPD
Set filter - impactor dial to position #2
Repeat step 4

6 Translate to EXPERIMENT COMP near MANLOCK
Set filter - impactor dial to position #3
Repeat step 4

7 Translate to SLEEP COMP
Set filter - impactor dial to position #4
Repeat step 4

8 Translate to WASTE MANAGEMENT AREA
Set filter - impactor dial to position #5
Repeat step 4

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10 DAY MEASUREMENT

9 Translate to WARDROOM near table
Set filter - impactor dial to position #6
Repeat step 4

10 Translate to UPPER DECK AREA
Set filter - impactor dial to position #7
Repeat step 4

11 Stow AEROSOL ANALYZER in locker 613

Note: Filter position #8 is for ASTRONAUTS discretion (20 measurements max)

10 DAY MEASUREMENT

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MEAL MEASUREMENT

1 Remove AEROSOL ANALYZER from locker 613
Replace data card if card has less than 2 blanks

2 Translate to WARDROOM near table

3 Set filter - impactor dial to position #6

4 Record GMT and filter position
Hold INLET port near ceiling and perpendicular to longitudinal axis

INITIATE CYCLE button - push

Observe PILOT OVERFLOW light - off after 70 seconds

Record CHANNEL COUNT - #1
Record CHANNEL COUNT - #2
Record CHANNEL COUNT - #3

5 Stow AEROSOL ANALYZER nearby universal camera bracket
After meal repeat step 4

6 Stow AEROSOL ANALYZER in locker 613

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CLOTHING MEASUREMENT

1 Remove AEROSOL ANALYZER from locker 613
Replace data card if card has less than 2 blanks

2 Translate to area where clothes are to be changed

3 Set filter - impactor dial to position #4

4 Record GMT and filter position
Hold INLET port near ceiling and perpendicular to longitudinal axis

INITIATE CYCLE button - push

Observe PILOT OVERFLOW light - off after 70 seconds

Record CHANNEL COUNT - #1
Record CHANNEL COUNT - #2
Record CHANNEL COUNT - #3

5 Change clothes

6 Repeat step 4

Stow AEROSOL ANALYZER in locker 613

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