

PROCEDURES CHANGE REQUEST		482	DATE INITIATED 6/9/83	DATE RECEIVED JUN 10 1983
INITIATED BY S.G. McCree	ORGANIZATION 063	INITIATOR'S CREW MEMBER (SIGNATURE/DATE) <i>[Signature]</i> 6/9/83	CONTROL NUMBER MED()-4	
PHONE X 2541	DOCUMENT TITLE: (Include flt. or veh. number.) Medical Checklist FH Supp STS-7	ISSUE/DATE FINAL 4/29/83	PAGE NUMBER(S)	
SHORT DESCRIPTIVE TITLE OF CHANGE: Med DSO's	FLIGHT(S) AFFECTED STS-8	FOR FDF MGR. USE McCree		

DETAIL CHANGE: (Use attachments, if required)

See attached.

ADVANCE

TECHNICAL RATIONALE: (Use attachments, if required)

Additionally approved Med DSO's require procedures.

IMPACT ON MISSION: (If not implemented)

OTHER AFFECTED DOCUMENTS:

Are all 482s submitted? ☐ YES ☐ NO*

*Explain.

PROCEDURE VALIDATION/REVALIDATION

FACILITY/TYPE	MANDATORY	RECOMMENDED	PARTICIPANTS	DATE SCHEDULED	DATE COMPLETED
Desk Review	☒	☐	<i>Stu McCree</i>		6/9/83
	☐	☐			
	☐	☐			

RETRAINING REQUIRED?

IMPLEMENTATION PRIORITY

CPCB REVIEW/ACTION REQUIRED?

CREW? ☐ YES ☒ NO
FLT CONTROL? ☐ YES ☒ NO

☐ I ☒ II ☐ III ☐ HOLD*

☐ YES ☒ NO

COORDINATION

SYSTEM REP (NAME/DATE)

FLIGHT DIR REP (NAME/DATE)

CREW REP (NAME/DATE)

Med Ops P.I.'s

APPROVAL

BK MGR. (SIGNATURE/DATE)

BK CHIEF (SIGNATURE/DATE)

FDF MGR. (SIGNATURE/DATE)

Stu McCree

John A. Wegener 6/9/83

☒ YES ☐ NO*

☒ YES ☐ NO*

☐ YES ☐ NO*

COMMENTS:

*Explain.

CPCB DISP	SCHEDULE DATE	APPROVED ☐ YES ☐ NO	CPCB CHAIRMAN (SIGNATURE/DATE)	IMPLEMENTATION ISSUE/DATE
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BODY FLUID SHIFT/PHOTOGRAPHY

MS3 PLANNING GUIDE FLIGHT DAY 1 (LAUNCH DAY)

ACTIVITY

NOTES

AMBULATORY MONITORING
ANATOMICAL OBSERVATION
BIOFEEDBACK

--

--

PRIOR TO SLEEP PERIOD

ASAP ON ORBIT

BODY FLUID SHIFT/PLETHYSMOGRAPHY

X2/CREWMEMBER

EVOKED POTENTIALS

--

EVERY 12 HOURS

INFLIGHT FLUID CHANGES

--

KINESTHETIC REPEATABILITY

--

ON-ORBIT HEAD/EYE TRACKING

ASAP ON ORBIT

TISSUE PRESSURE

--

SHOPPING LIST:

ACCEL DETECTION SENSITIVITY
AUDIOMETRY

EARLY DAY 1
ASAP ON ORBIT,
MET 6 HRS, 12 HRS

BODY WEIGHT/MASS
MICROBIOLOGY SCREENING
OPHTHALMOSCOPY

< ORBIT +4 HRS

2
V1
FS 3-2
9

STS-8/BAS

MS3
PLANNING
GUIDE

New
Section

BODY FLUID SHIFT/PHOTOGRAPHY

IF NOT DONE FD1

INTERNAL ENCLOSURE MODULE

MS3 PLANNING GUIDE
FLIGHT DAY 2

LIGHTS ON AT POST SLEEP/RECORD TEMP
LIGHTS OFF AT PRE SLEEP/RECORD TEMP

ACTIVITY	NOTES
AMBULATORY MONITORING	--
ANATOMICAL OBSERVATION	--
BIODEFEEDBACK	IF NOT DONE FD1/PRIOR TO SLEEP PERIOD
EVOKED POTENTIALS	--
EYE/HAND COORDINATION	--
INFLIGHT FLUID CHANGES	EVERY 12 HOURS
KINESTHETIC REPEATABILITY	--
ON-ORBIT HEAD/EYE TRACKING	EARLY DAY 2
TISSUE PRESSURE	--
TREADMILL PHOTOGRAPHY	DURING EXERCISE PERIODS
VISION ACUITY	--

BODY FLUID SHIFT/

SHOPPING LIST:

ACCEL DETECTION SENSITIVITY	IF NOT DONE FD1
AUDIOMETRY	--
BODY FLUID SHIFT/PLETHYSMOGRAPHY	IF NOT DONE FD1 X 2
BODY WEIGHT/MASS	IF NOT DONE FD1
MICROBIOLOGY SCREENING	IF NOT DONE FD1
OPHTHALMOSCOPY	IF NOT DONE FD1
SOFT CONTACT LENS	--

FS 3-3

STS-8/BAS

ANIMAL ENCLOSURE MODULE

MS3 PLANNING GUIDE
FLIGHT DAY 3

LIGHTS ON AT POST SLEEP
LIGHTS OFF AT PRE SLEEP / PEOPLE TEAM

ACTIVITY

NOTES

- ANATOMICAL OBSERVATION
- ANIMAL OBSERVATION/PHOTOGRAPHY
- EVOKED POTENTIALS
- INFLIGHT FLUID CHANGES
- KINESTHETIC REPEATABILITY
- ON-ORBIT HEAD/EYE TRACKING
- TISSUE PRESSURE
- TREADMILL PHOTOGRAPHY
- VISION ACUITY

-
- EVERY 12 HOURS
-
-
- DURING EXERCISE PERIODS
-

IF NOT DONE FD 2

BODY FLUID SHIFT

-
- IF NOT DONE FD1 or 2
-
- PRESLEEP

SHOPPING LIST:

- AUDIOMETRY
- BODY WEIGHT/MASS
- OPHTHALMOSCOPY
- BUFFET CARRY

BODY FLUID SHIFT / PLETHYSMOGRAPHY X2 / CREWMEMBER
FS 3-4 STS-8/BAS

SOFT CON...

BODY FLUID SHIFT / PHOTOGRAPHY

MS3 PLANNING GUIDE
FLIGHT DAY 4

ANIMAL ENCLOSURE MODULE

ACTIVITY

NOTES

ANATOMICAL OBSERVATION
ANIMAL OBSERVATION/PHOTOGRAPHY
BIOFEEDBACK
BODY FLUID SHIFT/PLETHYSMOGRAPHY
EVOKED POTENTIALS
EYE/HAND COORDINATION
INFLIGHT FLUID CHANGES
KINESTHETIC REPEATABILITY
MICROBIOLOGY SCREENING
ON-ORBIT HEAD/EYE TRACKING
TISSUE PRESSURE
TREADMILL PHOTOGRAPHY
VISION ACUITY

--
IF NOT DONE FD3
--
USE SAME SUBJ AS ON FD1 or 2
--
--
--
--
--
--
--
IF NOT DONE FD2 or 3
--

LIGHTS ON AT POST SLEEP / RECORD TEMP
LIGHTS OFF AT PRE SLEEP / RECORD TEMP

IF NOT DONE FD3 - PRESLEEP

X2 / CREWMEMBER

EVERY 12 HOURS

SHOPPING LIST:

AUDIOMETRY
BODY WEIGHT/MASS
OPHTHALMOSCOPY

--
IF NOT DONE FD1, 2, or 3
--

BODY FLUID SHIFT /

FS 3-5

STS-8/BAS

MS3 PLANNING GUIDE FLIGHT DAY 5

ACTIVITY

NOTES

DENITROGENATION

ANATOMICAL OBSERVATION
BODY FLUID SHIFT / PLETHYSMOGRAPHY
EVOKED POTENTIALS
EYE/HAND COORDINATION
INFLIGHT FLUID CHANGES
KINESTHETIC REPEATABILITY
ON-ORBIT HEAD/EYE TRACKING
BODY FLUID SHIFT / TISSUE PRESSURE
VISION ACUITY

X2 / CREWMEMBER

EVERY 12 HOURS

SHOPPING LIST

AUDIOMETRY

OPHTHALMOSCOPY

MS3 PLANNING GUIDE
FLIGHT DAY 6 (ENTRY DAY)

<u>ACTIVITY</u>	<u>NOTES</u>
CARDIOVASCULAR DECONDITIONING	EI-4 HRS (MED G/L FLT SUPPL)
ENTRY HEAD/EYE TRACKING	--
KINESTHETIC REPEATABILITY	--
MICROBIOLOGY SCREENING	IF NOT DONE ED4
ON-ORBIT HEAD/EYE TRACKING	--
TISSUE PRESSURE	--
VISION ACUTY	--
VISION ACUTY	--
<u>SHOPPING LIST:</u>	
AUDIOMETRY	--
OPHTHALMOSCOPY	--

BODY FLUID SHIFT/

FS 3-6

STS-8/BAS

MS3 PLANNING GUIDE
CONTINGENCY

<u>ACTIVITY</u>	<u>NOTES</u>
AMBULATORY MONITORING	ASAP WITH Sx
AUDIOMETRY	ASAP WITH Sx THEN 6, 12, 24, 48 HRS LATER
ON-ORBIT HEAD/EYE TRACKING	ASAP WITH Sx AND EACH 12 HRS UNTIL NORMAL
OPHTHALMOSCOPY	ANYTIME WITH Sx
SAS COUNTERMEASURE	ASAP WITH Sx

FS 3-7

STS-8/BAS

MEDICAL DSOS

SEPARATE
SECTIONS

~~MSD PLANNING GUIDE..... FS 2-2~~

ACCEL DETECTION SENSITIVITY..... FS 2-9

AMBULATORY MONITORING..... FS 2-11

AUDIOMETRY..... FS 2-12

~~BIOFEEDBACK..... FS TBS~~

* CELL ATTACHMENT INCUBATOR..... FS 2-21

* DENITROGENATION..... FS 2-21

EYE/HAND COORDINATION..... FS 2-22

* INTRAOCULAR PRESSURE..... FS TBS

KINESTHETIC REPEATABILITY..... FS 2-23

MICROBIOLOGY SCREENING..... FS 2-24

ON-ORBIT HEAD/EYE TRACKING..... FS 2-25

~~PHARMOKINETICS..... FS TBS~~

SAS COUNTERMEASURE..... FS 2-26

TISSUE PRESSURE..... FS 2-27

MED DSOS

* New Proc.

DENITROGENATION (DSO 426) 11

Unstow N2 washout bag assembly

✓Facemask, O₂ hose, cylinders - connected

Don assembly (except facemask)

Open both vlvs on cylinder 1

On cylinders 1 through 6 - ✓distal vlvs - cl

✓No. 7 vlv - cl

M032M

Connect O₂ hose to LEH O₂

Don face mask, note MET

After 5 min:

Record MET _____/_____: _____
Open distal vlv on Cylinder 2
Open proximal vlv on Cylinder 2
Close distal vlv on Cylinder 1
Close proximal vlv on Cylinder 1

After 20 min:

Record MET _____/_____: _____
Open distal vlv on Cylinder 3
Open proximal vlv on Cylinder 3
Close distal vlv on Cylinder 2
Close proximal vlv on Cylinder 2

After 35 min:

Record MET _____/_____: _____
Open distal vlv on Cylinder 4
Open proximal vlv on Cylinder 4
Close distal vlv on Cylinder 3
Close proximal vlv on Cylinder 3

After 50 min:

Record MET _____/_____: _____
Open distal vlv on Cylinder 5
Open proximal vlv on Cylinder 5
Close distal* vlv on Cylinder 4
Close proximal vlv on Cylinder 4

After 70 min:

Record MET _____/_____: _____
Open distal vlv on Cylinder 6
Open proximal vlv on Cylinder 6
Close distal vlv on Cylinder 5
Close proximal vlv on Cylinder 5

After 90 min:

Record MET _____/_____: _____

Open vlv 7 (no cylinder attached)

Close distal vlv on Cylinder 6

Close proximal vlv on Cylinder 6

✓All vlvs except vlv 7 - cl

Doff facemask, assembly

Disconnect O₂ hose from facemask

Connect control cylinder to O₂ hose

Obtain sample, disconnect control cylinder

M032M

Disconnect O₂ hose from LEH O₂

Stow N₂ washout bag assembly

INCUBATOR (DSO 432) 11

M013Q

L11

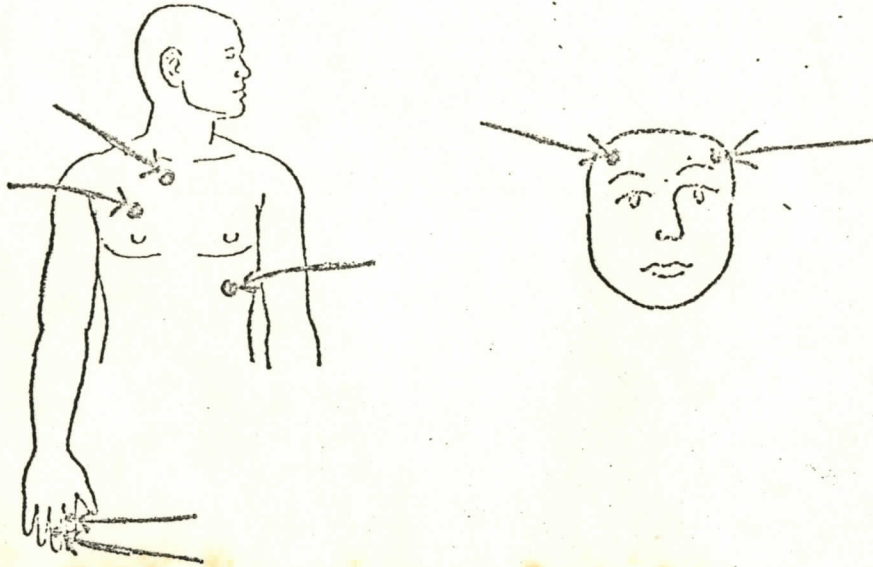
- 1 DC UTIL PWR - ON
- 2 EXP - ON
- 3 Inject syringe no. 1 (beads) into chamber 1
- 4 Using piston pumping tool, pump 2-3 times to mix
- 5 Repeat steps 4, 5 for syringes/chambers 2, 3, 4
- 6 Stow piston pumping tool, note MET
- 7 Stop until next CAP callout (~12 hr intervals)
- 8 Inject syringe no. 1-a (preservative) into chamber 1, repeat step 5, note MET, stop until next CAP callout
- 9 Inject syringe no. 2-a (preservative) into chamber 2, repeat step 5, note MET, stop until next CAP callout
- 10 Inject syringe no. 3-a (preservative) into chamber 3, repeat step 5, note MET, stop until next CAP callout
- 11 Inject syringe no. 4-a (preservative) into chamber 4, repeat step 5, note MET, stop until next CAP callout
- 12 EXP - OFF

CHAMBER	BEADS INJECTED	PRESERVATIVE INJECTED
1		___/___:___
2	___/___:___	___/___:___
3		___/___:___
4		___/___:___

STUDENT EXPERIMENT

Biofeedback

1. Unstow biofeedback assembly
2. Don biofeedback assembly belt around waist
3. Attach electrodes using Electrode Attachment Kit as shown



4. Connect Interface Box cable to recorder (red to red)
5. Connect Multisensor cable to recorder (black to black)
6. Interface Box - ON
7. Perform baseline data collection (5 min)
8. Begin biofeedback data collection (15 min)
9. Doff electrodes/assembly, stow

DSO 0425 INTRACULAR PRESSURE

1. Connect probe to tonometer
2. Power-ON, wait 5 min
3. Carefully install probe tip cover on probe tip
4. Apply wetting solution to probe
5. Hold eyelid up with one hand, do not exert pressure on eyeball
6. With other hand, hold probe perpendicular to eyeball, approximately 2mm from cornea
7. Touch cornea with probe using a quick movement. ✓ tone burst.
8. Repeat steps 5, 6, 7, allowing at least a one second interval between readings, until three good measurements are obtained
9. Record subject, MET, data
10. Remove, discard probe tip cover
11. Power-OFF, stow probe, tonometer

EYE/HAND COORDINATION (DSO 0418)

Turn on coordination device

Follow red mark with green pointer until
end of record

Turn off device, remove, identify, and
stow record

INCUBATOR (DSO 0432)

POWER UP

- M013Q 1 DC UTIL PWR - ON
L11 2 EXP - ON, wait 3 hr (until next CAP callout)

INITIATE SAMPLES

- 1 Inject Syringe 1 into Chamber 1
- 2 Mix sample, pump 2-3 times
- 3 Repeat Steps 1, 2 for Samples 2, 3, 4
- 4 Record MET, continue per next CAP callout

FIX INCUBATOR SAMPLES

- 1 Inject Syringe 1a (2a, 3a, 4a) into Chamber
1 (2,3,4)
- 2 Mix sample, pump 2-3 times
- 3 Record MET
- 4 After Sample 4
EXP - OFF

CHAMBER	BEADS INJECTED	PRESERVATIVE INJECTED
1		___/___:___
2	___/___:___	___/___:___
3		___/___:___
4		___/___:___