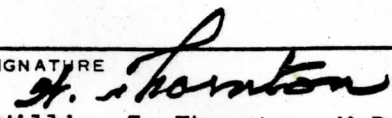


## MEMORANDUM

Lyndon B. Johnson Space Center



REFER TO: CB	DATE May 10, 1983	INITIATOR CB/WETHornton:lmc:5/10/83:2421	ENCL
TO: DA8/T. W. Holloway		CC	
FROM: CB/W. E. Thornton		SIGNATURE  William E. Thornton, M.D.	
SUBJ: COM Formats for STS-7			

Tommy, the enclosed sheet was given to me by Comm (E. Fendell) when I initially planned my measurements. This schedule allowed me to work around the times OBS was not available. Until last Friday there was no hint that this was not a valid schedule.

In all of my presentations to the boards for approval of the DSO's the dependence on OBS was stressed and documented (two DSO's are enclosed).

This comes at a bad time for while it is technically possible to put a recorder on board this will require a rapid effort at just the time we were finalizing hardware and training. Conversely, to simply give us a few time slots each day will inevitably complicate operations and result in a reduced data return.

BIOMED FORMATS• (HDR)    (LDR)

129	102
160	103
161	105
164	

FOR FORMATPRELAUNCH

160	- Biomed
171	
172	

ASCENT (T = -21 hours)

129	- Biomed
102	- Biomed

ORBIT (T = 55 minutes)

178	- No Biomed
114	- No Biomed

DEPLOY ANIK 08:00 - 10:30 - No Biomed

Biomed possible if needed 00:55-08:00 - No Biomed

Biomed possible if needed after ANIK deploy - 10:30

DEPLOY PALAPA Day 2 00:30-03:07 - No Biomed

Biomed possible after Palapa deployed - 03:07

DETACH SPAS Day 4 19:00 - Day 5 04:30 - No Biomed

116

179

Biomed possible after detach SPAS - Day 5 04:30

REENTRY - LANDING

103

161

Jeff Stafford, x 5841 - for any questions.



DSO 0404 ON-ORBIT HEAD AND EYE TRACKING TASKS (W. E. Thornton/CB)

Purpose/Objective

To obtain eye motion and head tracking data during the flight to detect and document changes in the crew nervous system that are related to equilibrium.

Support Requirements

a. Unique Hardware:

1. OBS (Operational Bioinstrumentation System - Standard Equip.)
2. EOG (Electro Eculogram) Harness
3. EOG Electrodes
4. Potentiometer mounted on a head band
5. Calibration Tape (1 oz.)

Test Conditions/Activity Required

a. General Notes:

1. It is desirable to perform the following procedures as many times as possible, from once for each crew member to once each day for each crew member. A special attempt should be made to test any crew member suffering from motion sickness.
2. The three EOG electrodes will be attached to the face of the test subject. The signals will be routed through the OBS cables to the Operational Instrumentation System.

b. On-Orbit:

1. The subject will look at central and lateral calibration spots while horizontal EOG data is recorded.
2. Horizontal head motion will be detected by a potentiometer mounted on a head band while the head is voluntarily turned right, left, down and up, once with the eyes opened and once with the eyes closed. Head motion and horizontal EOG data will be recorded simultaneously.
3. Horizontal head motion will be detected by a potentiometer mounted on a head band while the head is voluntarily turned from side to side with eyes opened and closed. Head motion and horizontal EOG data will be recorded simultaneously.

Data Requirements

- a. OI PCM Telemetry. (M)
- b. Crew debriefings. (M)
- c. Preflight/postflight training baseline data. (M)