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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

MANNED SPACECRAFT CENTER

HOUSTON, TEXAS 77058

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MSC-DA

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REPLY TO
ATTN OF:

DD-71-M-109

MEMORANDUM

TO: DA/Director of Medical Research and Operations

FROM: DD/Chief, Medical Operations Division

SUBJECT: Apollo 15 CSM-EVA

Per your request the following information on the Apollo 15 CSM-EVA is provided. The purpose of the CSM-EVA on the J-series Apollo flights is to retrieve film cassettes from the mapping and panoramic cameras located in the SIM bay (Scientific Instrumentation Module). These two cameras are used to obtain high (1 meter) and low (20 meters) resolution photographs of the lunar surface. The CSM-EVA is scheduled 17 hours post-TEI following termination of an 8 hour sleep period (236 g.e.t.). The detailed timeline for the CSM-EVA is given below.

<u>TIME, g.e.t.</u>	<u>EVENT</u>
239:30	Start cabin preparation for CSM-EVA
240:30	Prepare T.V. and data acquisition cameras
240:40	Prepare EVA equipment
240:50	Don pressure garment assemblies
241:40	CMP dons EVA equipment (OPS)
241:50	Start cabin depressurization
241:55	Open CM hatch
242:00	Start CSM-EVA
242:07	Install the T.V. and data acquisition cameras on their mounts
242:14	CMP retrieves the mapping camera film cassettes

Has front restraints

TIME, g.e.t.EVENT

242:25	CMP retrieves the panoramic camera film cassettes
242:37	CMP removes the T.V. and data acquisition cameras
242:42	CMP cabin ingress
242:46	CM hatch closed
242:52	Cabin repressurization initiated

35 min.

During the CMP's CSM-EVA the LMP will stand in the CM hatch area and meter out the EVA umbilical. The LMP will also receive the camera film cassettes from the CMP and pass these on to the CDR for storage. The CDR is also responsible for monitoring a small onboard T.V. screen during the CSM-EVA and calling for the CMP to make adjustments to the T.V. camera as necessary.

Regards crew training for the Apollo 15 CSM-EVA, the following have been completed:

- a. Pre- and post CSM-EVA systems configuration training in mockups-four exercises
- b. KC-135 zero-g CSM-EVA training-three flights
- c. WIF training-three water immersion exercises
- d. Altitude chamber familiarization-two decompressions in the CSD 8 ft. chamber for the prime and backup CMP's
- e. CM altitude chamber test no. 0034 at KSC

only not monitored? - msci -

In addition, the following crew training for the CSM-EVA remains to be completed:

- a. Pre- and post CSM-EVA systems configuration training in mockups-thirteen exercises, seven for the prime crew and six for the backup crew
- b. KC-135 zero-g flights-two flights for both the prime and backup crews
- c. WIF-one water immersion run for both prime and backup flight crews

instrument!


Willard R. Hawkins, M.D.