Attn: Robert Perram
From: Don Horan
Subject: DSPSE Status Meeting - 12 April 1994
cc: File

A DSPSE status meeting was held at 1000 (EDT) at the BATCAVE on 12 April 1994 and chaired by Don Horan. This meeting discussed spacecraft activities from 1000 on 4/11/94 to 1000 on 4/12/94. This memorandum briefly summarizes the results of the meeting.

**Engineering**

All spacecraft systems are nominal at this time.

**Flight Software**

A new software correction to handle situations when a slew is commanded while a slew is in progress has been prepared and is ready for testing on the testbed. This will prevent the software lock up that occurred prior to the orbit 231 mapping attempt.

There were no software resets.

**TAMP**

The trajectory is fine. The maintenance burn provided 1.7% more delta v than planned, but this is quite acceptable. The image overlap between first-month and second-month orbits continues to be fine, and the projection through to the end of mapping looks very good with an expected minimum overlap on one side of an image at 5%. The periselene altitude is now 422 km and will reach 400 km at the end of systematic mapping on 22 April. No additional burns are planned until the lunar orbit departure on 3 May.

**Sensors**

The intensity of the two UV/Vis images in a set requires a bit of adjustment.

The "tire track" digital error is being seen again in the NIR images. The adjustment of the exposure parameters did not eliminate the problem as first thought. The problem occurs in less than 10% of the images. It is being studied and some clues are emerging, but the cause is still uncertain.

A HiRes mosaic of Earth was made on orbit 242 and the resulting images look very good with good overlap. In most cases the exposure is decent, but some are underexposed a bit.

The temperature of the focal plane of the LWIR camera reached a maximum of 91 K on the most recent orbit. This is about 10° cooler than the maximum of a few days ago. The cryocooler is still being turned on only 15 minutes before imaging, but images are being taken from pole to pole.
pole. The situation seems to be improving, which may be caused by the increasing Sun angle or the reduced heat flow into the sensor bench because startracker A door is now closed.

The ACS engineer wants to make jitter measurements. However, it is clear that the jitter is not excessive and is not affecting the imaging. If there is time to work in jitter tests, fine. If not, they can certainly be made after the spacecraft leaves lunar orbit.

**SMOP**

The small segment of imaging missed on orbit 232 has been retaken using the HiRes camera from a larger angle.

The gap in the imaging caused when orbit 111 was missed has been filled. We are awaiting verification that data skipped on orbit 244 so that 111 data could be obtained has indeed been obtained on orbit 245. The spacecraft went through the correct motions to obtain the skipped 244 data, but the images have not yet been examined. Recovery of missing orbit 131 imaging will be attempted on 16 April.

Imaging and data transmission have been completed for orbits through 246 and orbit 247 mapping is in progress.

Post mapping orbital activity has been defined. Timeline generation has not yet been started.

**Schedule**

Tomorrow there will be a gap in commanding capability of nearly 4 hours. Because of GOES activity, DSN can only support us with non-commanding antennas. Transmission of the SSDR data during that time will have to be by script. The data set collected will be reduced to allow retransmission of the data again later in case something goes wrong with the script driven transmission.

No other DSN support gaps are expected through Saturday.