A DSPSE status meeting was held at 1000 (EST) at the BATCAVE on 29 March 94 and chaired by Don Horan. This meeting discussed spacecraft activities from 1000 on 3/28/94 to 1000 on 3/29/94. This memorandum briefly summarizes the results of the meeting.

**Engineering**

All spacecraft systems are nominal at this time. The battery is discharging significantly, but not dangerously, during the shadow periods, but recharges fully before the next shadow. We are out of the RF blockage periods. SSDR data transmissions using DSN sites are more difficult because of numerous errors during the transmissions, which require the bad portions to be re-transmitted. Scheduler said he would contact DSN and look into this problem.

There have been no resets for the last 7 days. No reasons for why we have, or have not, had resets have been determined.

The bistatic radar test RF engineer has been in close contact with DSN. DSN was embarrassed by the problems during the tests over the weekend and are being very cooperative. They are developing engineering to fix the oscillator frequency problem and are going to quickly deliver the equipment to all the ground sites. They have agreed to a complete end-to-end systems test to verify the modifications work and have agreed to a system verification prior to each test.

**Flight Software**

No new problems. The new patch to fix the time loss during slews is ready to upload. Engineering expressed a desire to do this when over Pomonkey and after a reduced data set orbit so there would be time to upload the patch and then transmit the SSDR data. This will be done tomorrow.

**TAMP**

A chart showing how the overlap will change with time was presented along with the results of the trim burn. The orbit period target was 298.50 minutes and the actual is 298.52 minutes. The perifocus target was 2186 km; the actual is 2185.85 km. The argument of perifocus target was 27.8 degrees, and the actual is 27.6 degrees.

**Sensors**

The ranging data continues to look good.
The problem reported yesterday, that during the orbit 172 ranging data review a 1 hour time shift was noted, was explained. Because of the RF blockages, rather than transmitting the SSDR segments in order, the highest priority data was transmitted first, then the segments containing lower priority data. Because the segments where not transmitted in order, an apparent jump in time of the files occurred. In addition, to save time, some segments were stored in the same file as a previous segment. Even with this explanation, it was noted that another case was found during orbit 173 that the time between images 6 and 7 jumped 20 minutes. This is also being investigated.

Sequence tables are being built to support the orbit 183/184 attempt to image missing orbit 51 data.

During orbit 178, the attempt to image Vega for radiometric calibration was not successful - most likely due to a quaternion error. Non-uniformity corrections will be included in the calibration.

LLNL is preparing a sensor calibration report.

**SMOP - Mapping Results**

Imaging and data transmission has been completed for orbits 167 through 178 and orbit 179 data transmission is in progress.

Data taken during orbit 176 should have closed the gap in Copernicus.

During orbit 178, we passed almost directly over a Saturn IVB impact crater and took HiRes images over this region. The images need to be looked at to determine what is visible in the images.

During orbits 183 and 184, we will test procedures to obtain images of terrain missed during orbit 51. If this works, these procedures will be used to recover images of terrain missed during orbits 111 and 131. The procedure for doing this was explained. During orbit 51, imaging between 30°S and 5°N latitude were not obtained. During orbit 183, quaternion tables will be used to get half of the missing images while still obtaining the normal orbit 183 images. Normal imaging will take place at the beginning of the orbit up to 40°S latitude, then the spacecraft will be slewed to look ahead to 20°S while taking images at a faster than normal rate. When the field of view reaches 20°S, the spacecraft will be slewed back to 30°S over the orbit 51 ground track and images will be taken up to 10°S. At this time, the spacecraft will be slewed so that the FOV will point back to 20°S over the orbit 183 ground track and resume orbit 183 imaging at the higher image rate. During orbit 184, the other half of the missing orbit 51 data will be obtained in a similar manner. During these two orbits, no HiRes images will be taken. For orbits 111 and 131, data needs to be obtained from 40°S to 40°N for each orbit.

**Scheduling**

DSN is scheduled to support normal lunar mapping operations. We are looking into the data link quality problem. The roll-around Mux at Vandenberg 660 has been taken for use by another program and will be returned in late April. During this time, there will be no data link between AFSCN and the DMOC, but AFSCN will continue to supply backup support by recording SSDR data transmissions in case they are needed.