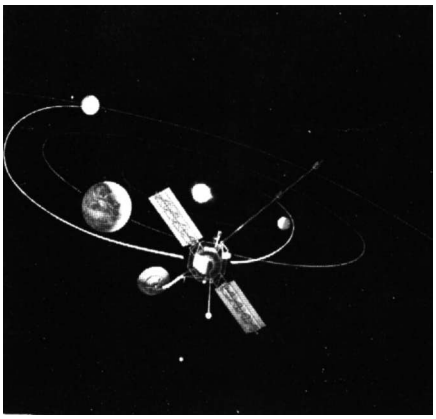

MARINER VENUS / MERCURY 1973
STATUS BULLETIN

Mariner 10 to take Pictures of Pleiades Cluster

Enroute to Venus and Mercury, Mariner 10 took this picture of the northeastern part of the Moon on November 3. The dark area near the center of the picture is Mare Humboldtianum (about 200 kilometers or 125 miles in diameter) in the densely cratered highlands. The bright streaks are crater rays. This picture is one of many which make a mosaic of the entire illuminated portion of the Moon. Many of the pictures of Mercury are expected to be of much higher resolution. The spacecraft took this picture at a distance of about 110,000 kilometers (70,000 miies). Mariner 10 will take Mercury photos from as close as 5,000 kilometers (3,300 miles).

MARINER VENUS/MERCURY 1973 PROJECT OFFICE
Jet Propulsion Labratory California Institute of Technology
National Areonautics and Space Administration
Pasadena, California

November 8, 1973

BULLETIN NO. 3

Significant Mission Events/Times

PSE PWR ON	13:30 PST	(D309)
PSE Scan	14:40 PST	(D309)
CC&S U 0.2 Update	15:50 PST	(D309)
Moon Diameter Experiment	21 :28 PST	(D309)
UVS Earth Slews	13:35 PST	(D310)
4th Earth TV Calibration	13:50 PST	(D310)
5th Moon TV Calibration	14:15 PST	(D310)
RCM No. 1	15:20 PST	(D310)

The Mariner 10 is scheduled to take pictures of the Pleiades cluster, or "Seven Sisters," in constellation Taurus, a galactic cluster in the Milky Way, which is 20,000 light years from the Sun. Pleiades is readily known with its brightest star plainly visible to the naked eye, and with 6 to 10 stars easily discernible to the naked eye.

The TV is still performing well. The star shots last night appear to be in focus. It is predicted the cameras will perform well at stabilized temperatures. There is a question remaining regarding the TV power on/off status during TCM.

The CPT and UVS are performing well. The IRR has not been turned on.

Although the PSE engineering data and scan data is good. Electrons are not being counted for some unknown reason.

The TV diagnostic tests were conducted around D310/05:00 to D310/07:00. These tests included star photography and additional Moon data. The latter, in addition to providing better information on TV system performance, will allow evaluation of a proposed diameter measurement at Mercury. Analysis of these data indicate that TV optical performance continues to be good. Thermal stabilization of the TV optics is expected to occur within the next two to three days, with final TV vidicon temperatures presently predicted to be between 10 and 15° F. A total of approximately 900 pictures have been returned as of D311/03:00.

Following the TV diagnostic and Moon diameter tests discussed above, the UVSA slit was positioned on the Earth for several hours to obtain a further statistical improvement in the Earth extreme ultraviolet data. Instrument performance for the UVSAG, CPT and MAG continue to be excellent.

The Deep Space Network has provided all tracking and data acquisition necessary to execute the planned Mission Sequence of Events. In addition, DSN personnel have participated with the Project in revising planned sequences to accommodate special tracking/video activities associated with the S/C TV optics heaters problem.