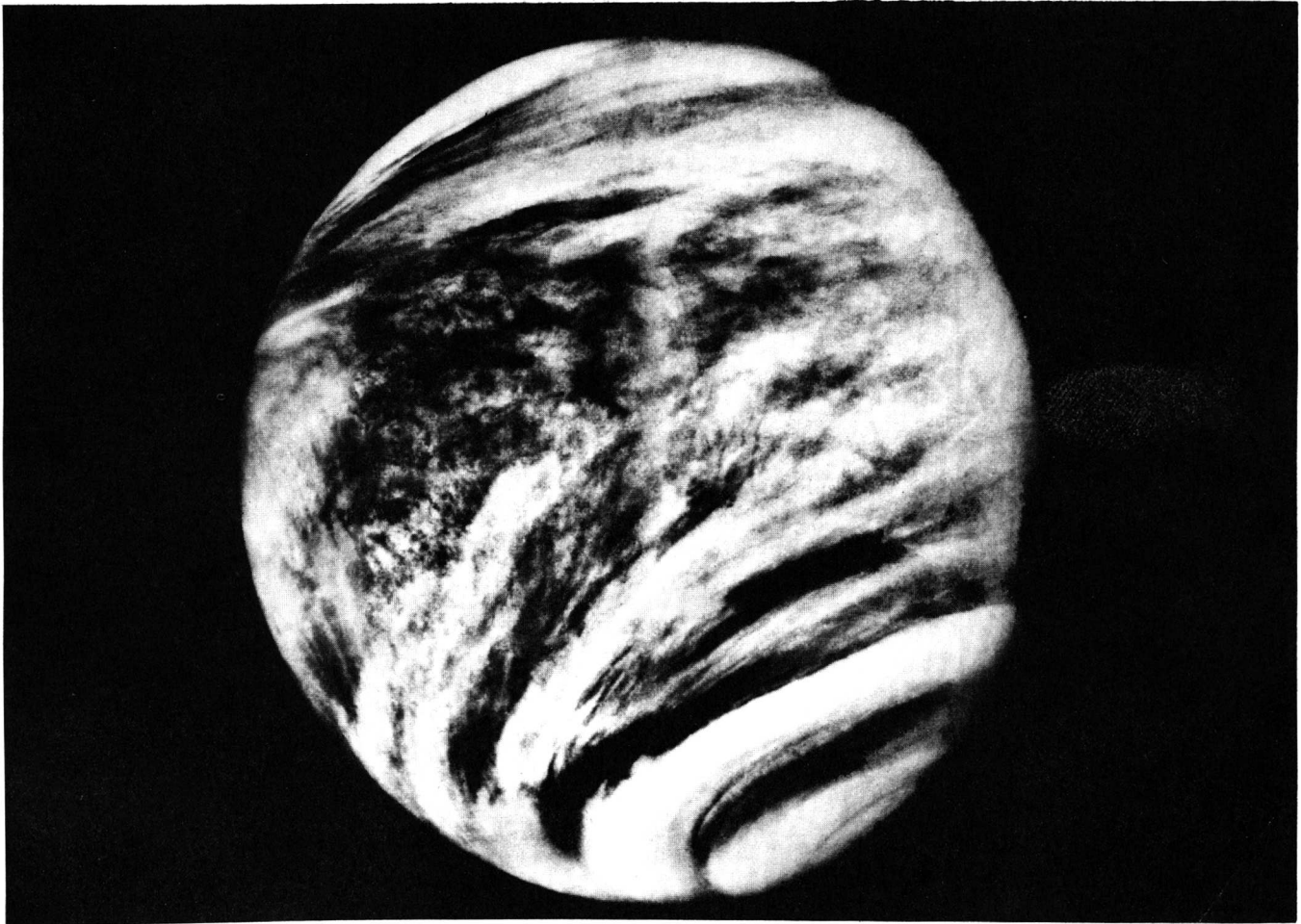


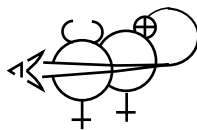
MARINER VENUS / MERCURY 1973 STATUS BULLETIN

TRAJECTORY CORRECTION MANEUVER SUCCESSFUL



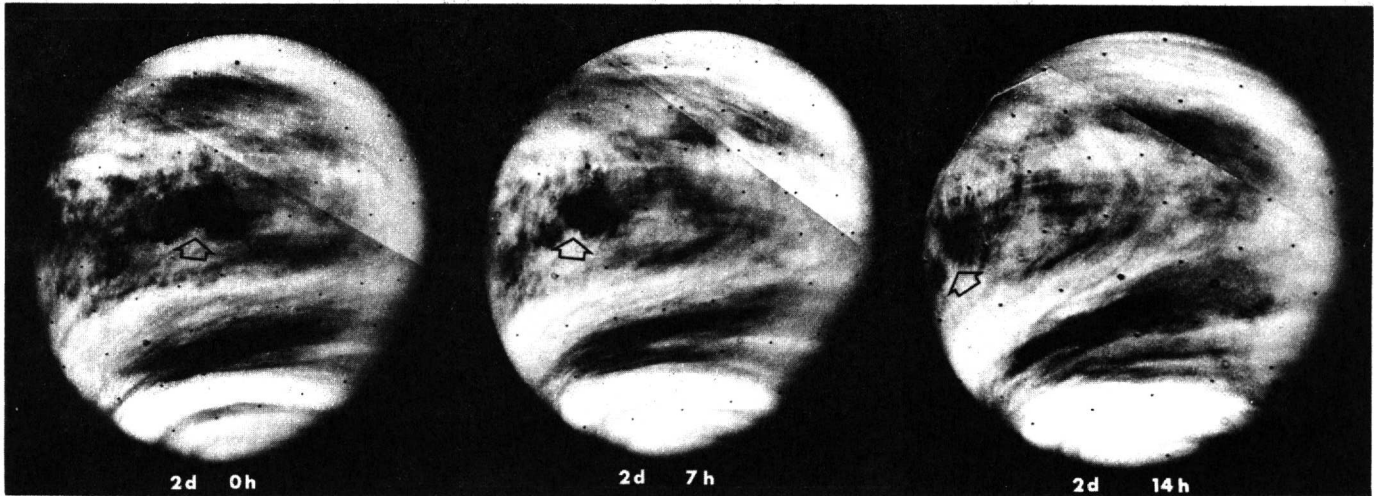
This view of Venus was taken from 720,000 kilometers (450,000 miles) by Mariner 10's television cameras on February 6, 1974— one day after the spacecraft flew past Venus enroute to Mercury. Individual TV frames were computer-enhanced at JPL's Image Processing Laboratory, then mosaicked and retouched at the Division of Astrogeology, U.S. Geological Survey, Flagstaff, Arizona. The pictures were taken in invisible ultraviolet light. Mariner 10 took nearly 3500 pictures of Venus and crossed the planet's orbit at an altitude of about 5800 kilometers (3600 miles).

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



18 March 1974

BULLETIN NO. 22



A series of photomosaics of Venus was taken at seven-hour intervals two days after Mariner 10 flew past the planet (from left, 10 A.M., 5 P.M. and 12 mid., PDT, February 7, 1974). The pictures, taken through ultraviolet filters, show the rapid rotation of light and dark markings at the top of Venus' thick cloud deck. Size of the feature indicated by arrows is about 1000 kilometers (620 miles).

TCM₃ SUCCESSFULLY PERFORMED

The third Trajectory Correction Maneuver was performed on schedule on Saturday March 16, 1974 at 4:55 PDT with a programmed velocity change of 17.8 m/s. The maneuver was performed in order to correct the Mercury flyby trajectory from the sun side of the planet to the desired flyby point on the dark side. Preliminary analysis using data gathered from the telemetry and the observed doppler shift during the maneuver indicates that the actual maneuver was approximately 1% short of the desired maneuver, which results in a Mercury flyby approximately 200 km closer to the planet than the aim-point. Since this predicted flyby point satisfies all the requirements of the Science Instruments, no additional maneuvers are planned.

NON-IMAGING SCIENCE TURNED ON

On Sunday March 17, the Non-imaging Science turn-on was completed in preparation for Mercury Encounter. This operation included checking out the Infrared Radiometer and both Ultraviolet Spectrometers as well as a final check on the Fields-and-Particles Instruments. All instruments are in good operating condition.