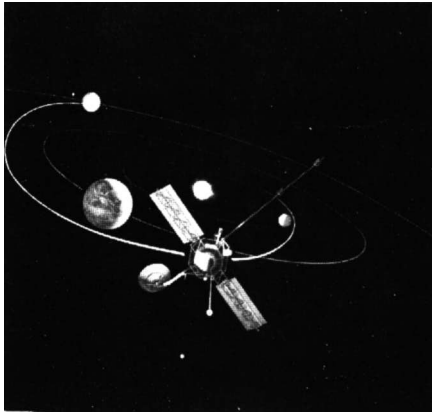




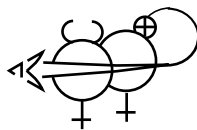
MARINER VENUS / MERCURY 1973 STATUS BULLETIN

**Awards For Mariner 10 Team;
Spacecraft 3½ Weeks From Mercury**



W. E. (Gene) Giberson, Manager of the JPL Mariner Venus/Mercury 1973 Project, receives the NASA Distinguished Service Medal. From left: Robert S. Kraemer, Director of Planetary Programs, NASA Office of Space Sciences; Dr. Harold Brown, President, Caltech; Dr. William H. Pickering, Director, JPL; Giberson; Dr. John E. Naugle, NASA Deputy Associate Director for Office of Space Sciences; and Dr. James C. Fletcher, NASA Administrator.

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



28 August 1974
BULLETIN NO. 34

On Friday, 16 July, a NASA Special Awards Ceremony honored many individual and team participants in the Mariner 10 team. A total of 33 individual medals and awards and 20 group awards were presented by Dr. James C. Fletcher, NASA Administrator. Dr. Fletcher hailed the project as a scientific achievement, a technical achievement, and a triumph of management. Dr. Harold Brown, President of Caltech, remarked that this mission was notable among JPL's many

contributions to the national space program over the years, and expressed the Caltech community's pride in the scientific achievements of Mariner 10. Dr. William H. Pickering observed that this project has added another notable chapter to the 12-year story of Mariner, which has led the way in exploring the near planets of the solar system. He also congratulated the awardees, and said that JPL and Caltech are proud of them. A list of the awardees follows.

THE 1974 MARINER 10 AWARD RECIPIENTS

DISTINGUISHED SERVICE MEDAL

W.E. Giberson

OUTSTANDING LEADERSHIP MEDAL

John R. Casani

DISTINGUISHED PUBLIC SERVICE MEDALS

Bruce C. Murray
Edwin G. Czarnecki

EXCEPTIONAL SCIENTIFIC ACHIEVEMENT MEDALS

Herbert S. Bridge
Victor C. Clarke, Jr.
James A. Dunne
John A. Simpson

EXCEPTIONAL SERVICE MEDALS

Lida M. Bates
Lyle V. Burden
Elliott Cutting
G. Edward Danielson
Esker K. Davis
Richard L. Foster
Daryal T. Gant
Harold J. Gordon
Adrian J. Hooke
William R. Howard (deceased)
Edward H. Kopf, Jr.
William I. Purdy, Jr.
Norri Sirri
F. Louis Sola
Anthony J. Spear
Gael F. Squibb
Francis M. Sturms, Jr.
Fred Vescelus
Peter B. Whitehead
James N. Wilson

PUBLIC SERVICE AWARDS

Richard A. Axell
William E. Bramel
Kunihei Kawasaki
Haim Kennet
Bernard M. Lehv
George B. Rickey

GROUP ACHIEVEMENT AWARDS

Flight Project Representative Team
Flight Data Subsystem Development Team
Ground Data System Integration Team
Mission Control and Computing Center
Mission Sequence Working Group
Navigation Development and Operations Team
Roll Axis Anomaly/Solar Sailing Team
Television Subsystem Development Team
Work Unit Management Team
System Contract Procurement
Spacecraft Flight Operations and Mission Control Teams
Mariner 10 Headquarters Staff Support Group
Jet Propulsion Laboratory

PUBLIC SERVICE GROUP ACHIEVEMENT AWARDS

Boeing Aerospace Management Team
Data Records Group
Science Instrument Development Team
Television Science Team
Spacecraft System Design Team
Temperature Control Design Team
Boeing Cognizant Work Unit Engineers

TEAM MEMBERS

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Eugene A. Laumann
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F. Louis Sola
Anthony J. Spear
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Herbert G. Trostle

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Jervis L. Wolfe
Larry W. Wright

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Douglas B. Stoddard
Charles H. Terwilliger



Dr. Fletcher (left) presents the NASA Group Achievement Award to the Jet Propulsion Laboratory. Dr. Pickering (second from left) received the award for the Laboratory. Five personnel were honored as representative of the body of support activities not directly assigned to the Venus/Mercury Project: Leticia Eckerle (third from left), administrative and secretarial; Sharon D. Jones, clerical; Harold J. Wheelock, documentation; Bruce M. Hayes, SFOF; and John C. Hewitt, photography.

Meanwhile, back in space, the Mariner 10 spacecraft is now cruising quietly, having completed its primary mission by returning new scientific data during its flight past Venus and Mercury in February and March. Its trajectory was altered by maneuvers on May 9, May 10, and July 2, 1974, to bring the spacecraft back to Mercury for a second encounter on September 21, 1974. Photographic coverage of the planet for this flyby will in part duplicate the regions photographed last March 29, but will primarily cover the south pole and the sunlit side of the planet, cartographically tying together the two sides of Mercury observed on the first flyby. There will be no Earth or Sun occultation on this pass. After this encounter, two more trajectory correction maneuvers will place the spacecraft in a heliocentric orbit that will result in a third Mercury encounter in March 1975.

Time has taken its toll on Mariner 10 since the first Mercury encounter. The day after the flyby, a still unexplained problem in the spacecraft power subsystem resulted in an extra 90-watt load on the solar array, elevating

spacecraft internal temperatures as a result. Power to the spacecraft tape recorder started to toggle off when the tape recorder was on, and the experimental X-band transmitter suffered some performance degradation. Three weeks later, the spacecraft telemetry subsystem experienced a failure that resulted in the loss of nearly half of the engineering telemetry. Later, the low energy charged particle detectors in the Plasma Science Experiment began approaching the end of their useful life, so this cruise instrument was turned off to conserve the detectors for the encounter periods. Most recently, the tape recorder began to operate erratically and finally completely failed to operate. Despite these problems and failures, the spacecraft continues to return cruise science data on interplanetary magnetic fields and high energy charged particles from the Magnetometer and Charged Particle Telescope experiments. A combination of real-time full-resolution and real-time reduced-resolution television pictures will fulfill the experimental objectives of the Television Science Team for the second encounter of Mercury.