



# Space Log

Volume 16

VOYAGER 2 BULLETIN

January 1986

January 24, 1986 will stand in history as man's entrance into a new and different realm of the solar system. This is the date that Voyager 2 will pass closest to Uranus, the mysterious planet. With that, we will gaze on a world more distant than any we have yet explored.

Voyager 2, now in its ninth year of interplanetary travel, was launched from Cape Canaveral, Florida on August 20, 1977. It traversed the asteroid belt, and successfully encountered Jupiter on July 9, 1979. It flew by Jupiter at about 404,000 miles above the planet's visible cloud tops. From there, its mission headed it toward the planet Saturn. On August 25, 1981 at 8:24 p.m. PST Voyager 2 came within 63,000 miles of the planet Saturn. From there, the Voyager 2 mission control at the Jet Propulsion Laboratory in Pasadena, California sent it on its way to the planet Uranus. And after passing Uranus, Voyager 2 will have its next fly-by at the planet Neptune in 1989.

Voyager 2 weighs 1797 pounds and contains 232 pounds of scientific instruments. It is well equipped for man's first reconnaissance of the unknown planet Uranus. As it makes its six-hour fly-by, Voyager 2 will approach it as close as 66,000 miles. On this path, the spacecraft's cameras will catch Miranda and Ariel, Uranus' innermost two satellites, at a close approach. At this approach, scientists say that Uranus will appear like a giant, half-shadowed greenish sphere about 55 times the diameter of the Moon as seen from Earth. It will have a total brightness almost equal to our Moon seen from Earth.

To carry out its mission, so far from Earth, Voyager 2 relies on computer controls and nuclear power. Three nuclear power sources provide all the electric power needed to keep the spacecraft and its computer systems operating. After making its fly-by of Uranus, Voyager 2 will make its way through unexplored space for its encounter with Neptune on August 14, 1989. We know very little about either Uranus or Neptune and Voyager 2 is expected to present many surprises to scientists.

What will happen to this historic spacecraft after Neptune? Richard Laeser, Voyager project manager at the Jet Propulsion Laboratory says that, "there will be sufficient electrical power from on board RTGs to maintain communications until early into the 21st century." Voyager 2 may help to provide us with our first information on interstellar space.

Scientists tell us that 357,900 years from now, Voyager 2 will still be travelling in space and at that time will pass at about 5-trillion miles from Sirius, now the brightest star in the heavens. What will happen if this spacecraft encounters some extraterrestrial life form? If it does, perhaps that life form might find and decipher the special sound-and-light show placed on board Voyager 2 to describe Earth. Included in it is this message from President Jimmy Carter.

"This is a present from a small, distant world. A token of our sounds, our science, our images, our music, our thoughts and our feelings. We are attempting to survive our time so we may live into yours. We hope some day, having solved the problems we face, to join a community of galactic civilizations. This record represents our hope and our determination."

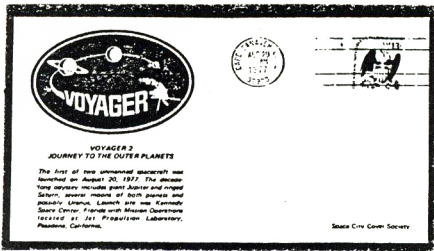
To get to the present and to push our way into the future we must know of what happened to us in the past. The event covers produced by the Space City Cover Society for the entire mission of Voyager 2 can bring us up to date on this one segment of our space history.

## VOYAGER 2...FROM LAUNCH TILL NOW

Space cover collectors have known for years the joy of seeing history over-the-years represented by a series of commemorative space covers. Mounted on album pages, they tell the full story in an interesting way. And the postmarks reveal the events along the way. The Space City Cover Society has covered all of the important events for Voyager 2...from its rollout on August 13, 1977 up to its fly-by of Uranus.

On the backside of this page we have illustrated and listed the important events of the life of Voyager 2 up until this time.

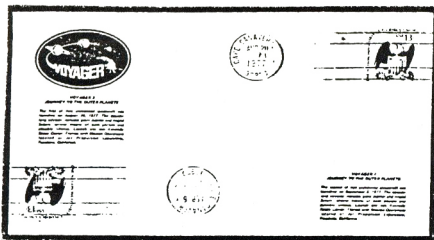




Cachet similar to this one for covers #1, #2, #3 & #4

Pasadena, California. Pasadena

COVER #4 Aug 25, 1981 Voyager 2 Encounter with Saturn. On August 25, 1981 at 8:24 p.m. PST, Voyager 2 came within 63,000 miles of the planet Saturn. This cover is machine cancelled at Pasadena, California, home of Voyager 2 mission control at the Jet Propulsion Laboratory.



COVER #1 Aug 13, 1977 Voyager 2 Roll Out. The spacecraft was moved to Complex 41 Launch Pad. There, vehicle mating and final preparations were made prior to launch aboard a Titan Centaur (TC-7). Cape Canaveral machine cancel.

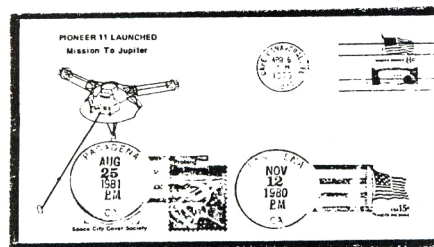
COVER #2 Aug 20, 1977 Voyager 2 Launch. Voyager 2, the first of two unmanned spacecraft, was launched on August 20, 1977. Its planned odyssey included giant Jupiter, and ringed Saturn and several moons of both planets. After the Saturn fly-by it would be determined as to sending it on to Uranus. Launch was at Cape Canaveral, Florida. Cape Canaveral machine cancel.

COVER #3 Jul 9, 1979 Voyager 2 Encounter with Jupiter. Voyager 2 made its closest encounter with Jupiter on July 9, 1979. It flew about 404,000 miles from Jupiter's visible cloud tops. Voyager's mission control is located at the Jet Propulsion Laboratory at machine cancel.

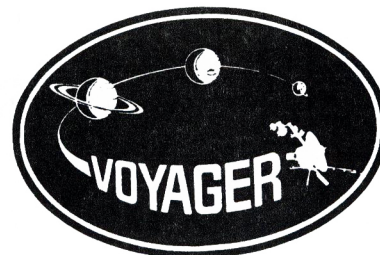
COVER #5 Double Cancel of Voyager 1 and 2. Voyager 2 was launched first on August 20, 1977 from Cape Canaveral, Florida. The other of the two spacecraft, Voyager 1, was launched into a different flight plan on September 5, 1977. This cover is double cancelled (Cape Canaveral machine cancel for both dates).



COVER #6 Double Cancel of Saturn Encounter. Both Voyager 1 and 2 made an encounter with Saturn. Voyager 1 flew-by Saturn on November 12, 1980 and Voyager 2 made its fly-by on August 25, 1981. This double cancelled cover processed at Pasadena, California, home of Voyager mission control. The first cancel of Voyager 1 fly-by is machine cancel. The second cancel (Voyager 2) is hand cancel.



COVER #7 A Triple-header...A Triple cancel. This cover "tells it all!" Pioneer 11 became the first spacecraft in history to make a close encounter with Saturn. Data obtained from that mission was used in planning the encounters of Voyager 1 and 2 with Saturn. This cover is triple cancelled. (1) Cape Canaveral cancel machine cancel of April 6, 1973, the launch date of Pioneer 11; (2) November 12, 1980 Pasadena, California as Voyager 1 made its encounter with Saturn, and (3) August 25, 1981 as Voyager 2 made its encounter with Saturn.



\*\*\*End of Bulletin\*\*\*